

*News and Views...* 

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**08 - 10 | APRIL 2021**

Chennai Trade Centre, Chennai, INDIA

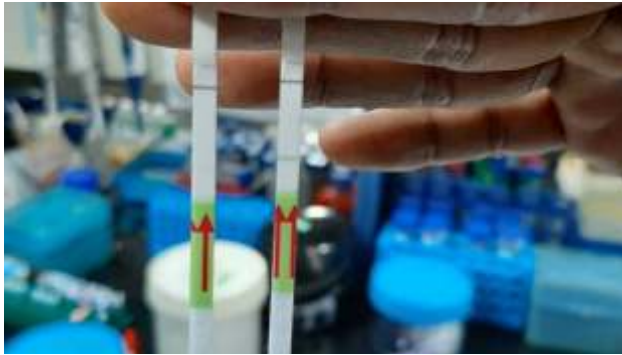


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## INDUSTRY NEWS



### India's new paper Covid-19 test could be a 'game changer'

A team of scientists in India has developed an inexpensive paper-based test for coronavirus that could give fast results similar to a pregnancy test. The BBC's Soutik Biswas and Krutika Pathi unpack how it works.

The test, named after a famous Indian fictional detective, is based on a gene-editing technology called Crispr. Scientists estimate that the kit - called Feluda - would return results in under an hour and cost 500 rupees (about \$6.75; £5.25). Feluda will be made by a leading Indian conglomerate, Tata, and could be the world's first paper-based Covid-19 test available in the market. "This is a simple, precise, reliable, scalable and frugal test," Professor K Vijay Raghavan, principal scientific adviser to the Indian government, told the BBC. Researchers at the Delhi-based CSIR-Institute of Genomics and Integrative Biology (IGIB), where Feluda was developed, as well as private labs, tried out the test on samples from about 2,000

patients, including ones who had already tested positive for the coronavirus. They found that the new test had 96% sensitivity and 98% specificity. The accuracy of a test is based on these two proportions. A test that's highly sensitive will detect almost everyone who has the disease; and a test that has high specificity will correctly rule out almost everyone who doesn't have the disease. The first ensures not too many false negative results; and the second not too many false positives. India's drug regulator has cleared the test for commercial use. With more than six million confirmed infections, India has the world's second-highest Covid-19 caseload. More than 100,000 people in the country have died of the disease so far. After a slow start, India is now testing a million samples a day in more than 1,200 laboratories across the country. It is using two tests. The first is the time-tested, gold standard polymerase chain reaction, or PCR swab tests, which uses chemicals to amplify the virus's genetic material in the laboratory. The second is the speedy antigen test, which works by detecting virus fragments in a sample.

The PCR test is generally reliable and costs up to 2,400 rupees. It has low false positive and low false negative rates. The antigen tests are cheaper. They are more precise in detecting positive infections but generate more false negatives than the PCR test. Scaling up testing in India hasn't meant easy availability yet, according to Dr Anant Bhan, a researcher in global health and health policy. "There are still long wait times and unavailability of kits. And we are doing a lot of rapid antigen testing

which have problems with false negatives," Dr Bhan told the BBC. He believes the Feluda test could potentially replace the antigen tests because it could be comparatively cheaper - and more accurate. "The new test has the reliability of the PCR test, is quicker and can be done in smaller laboratories which don't have sophisticated machines," Dr Anurag Agarwal, director of IGIB, told the BBC. Sample collection for the Feluda test will be similar to the PCR test - a nasal swab inserted a few inches into the nose to check for coronavirus in the back of the nasal passage. India still doesn't allow Covid-19 tests from saliva samples. In the traditional PCR test, the sample is sent to an accredited laboratory where it has to go through a number of "cycles" before enough virus is recovered. The new Feluda test uses Crispr - short form for Clustered Regularly Interspaced Short Palindromic Repeats - or a gene-editing technology to detect the virus. According to researchers, gene-editing works in a way similar to word processing - it's like using the cursor to correct a typo by removing an incorrect letter and inserting the correct one. The technique is so precise it can remove and add a single genome letter. Gene-editing is mainly used to prevent infections and treat ailments like sickle cell disease.

When used as a diagnostic tool, like Feluda, the Crispr technology latches on to a set of letters of a gene carrying the signature of the novel coronavirus, highlights it, and gives a read-out on a piece of paper.

Two blue lines indicate a positive result, while a single blue line means the test has returned negative.

"Testing remains a limited resource and something that we need to do everything we can to improve its availability. So Feluda is an important step in that direction," said Dr Stephen Kissler, a research fellow at Harvard Medical School. The Crispr-based tests are a part of a "third wave of tests" after the time consuming and labour intensive PCR and antigen tests, according to Dr Thomas Tsai of the Harvard Global Health Institute. In the US and the UK, several companies and research labs are developing similar paper strip tests which can be cheap and mass produced. One of the most talked-about has been a paper-based strip developed by Sherlock Bioscience which has been cleared for emergency use by the US Food and Drug Administration (FDA). The test claims to detect the "unique genetic fingerprints of virtually any DNA or RNA sequence in any organism or pathogen". DNA and RNA are sister molecules responsible for the storage of all genetic information that underpins life. "The ideal and ultimate test will be the one that is paper-based which you can do from home," said Dr Tsai. "But of course, there are some biological restrictions to the technology - we can't expect people to extract and amplify the RNA from home." This is where the Feluda test might end up making a huge difference to the way we look at gene-editing based diagnostic tests. Dr Debojyoti Chakraborty, a molecular scientist with CSIR-IGBMR and a lead member of the

team that developed Feluda, told the BBC that they were working on a prototype of a test where "you can extract and amplify the RNA at home". "We are trying for a simple, affordable, and truly point-of-care test so widespread testing is not limited by machines and manpower," Dr Chakraborty said.

– **BBC News**



### **India's first Covid-19 wave finally recedes**

The first wave of the coronavirus disease (Covid-19) appears to be receding for the first time across the country, with cases seeing a steady drop for three consecutive weeks now. Experts warn that with the festive season coming up, the curve may rise again if people let their guard down during the celebrations.

The seven-day average of daily cases in India touched 93,617 on September 16, the highest till date. In the three weeks since, this number (also referred to as the daily case trajectory) has dropped every single day and stands at 74,623 on Wednesday – down around 20% from the peak. This has meant that India's doubling rate – the number of days it takes for the number of infections to double – has seen a drastic improvement in the past month. On Wednesday, it stood at 60 days, as against 32.6 days on September 7.

This drop is also mirrored in the death trajectory. The seven-day average of daily deaths in the country was at its highest on September 15, when it touched 1,169. This number has dropped near consistently since then, and as on Wednesday, it stands at 977 – a drop of 16% from the peak.

This is the first time a drop of this magnitude and consistency has been recorded in the Covid-19 case and death trajectories in India. Across the world, there have been fluctuations and waves in the case (and death) trajectories – the US, for instance, is on its third wave currently – but India's trajectory has been climbing throughout till mid-September.

This reversal in trajectory has been led by the some of the states that have so far caused the national spike in cases – Maharashtra, Tamil Nadu, Andhra Pradesh and Delhi. Together, these four states have been responsible for 46% of all infections in the country.

In Maharashtra, India's worst-hit state responsible for a little under a quarter of all infections in the country, daily cases peaked



at 22,149 on September 17, a day after the peak in the national trajectory. The trajectory in Delhi also peaked the same day, although Delhi is the only major region in the country that has seen a distinct second wave of infections. Cases in Tamil Nadu and Andhra Pradesh, meanwhile, have been dropping since the start of September – their respective peaks were on September 2 and 1 respectively.

A handful of states, particularly Kerala and Karnataka, however, appear to be defying the larger trend and cases there remain currently at peak levels and appear to be rising.

“Even though cases have started dropping, we are nowhere close to the end of the first wave. We are still reporting close to 75,000 cases a day, which is by no means a small number. However, it is still a significant drop, especially if it is not artificially influenced by a change in testing strategy. But if our testing strategy is the same as it was in August and early September, then this is a very good sign,” said Dr Shahid Jameel, virologist and director of Trivedi School of Biosciences at Ashoka University.

The threat of a festive resurgence, however, is very real, as India’s own experience shows. In Kerala, festivities for Onam (celebrated between August 22 and September 2) appear to have caused a spike in cases. While the trajectory in the state was largely in control through much of the pandemic, it has seen a huge spike from the start of September – average daily cases have increased from around 2,000 in the start of September to nearly 8,000 in the last week of the month. Union health secretary Rajesh Bhushan

identified Onam as the key factor that caused the spike in the state. “The highest increase in active cases in the country has been seen in Kerala and the surge is possibly due to the Onam festivities,” he said in Tuesday’s health briefing. Dr VK Paul, member of Niti Aayog, stressed last Tuesday that the coming festive season will be all about masks – “mask wali Chhath, mask wali Eid, mask wala Dussehra aur mask wali Diwali”. Dussehra will be celebrated on October 25, Eid Milad-un-Nabi on October 28-29, while Diwali will be on November 14 and Chhath on November 20. “This is all for our own good; and needs to be promoted big time. Community heads should ensure and appeal that festivals should be celebrated with caution; not in large groups but smaller groups. Large gatherings, especially in marketplaces, could be detrimental, so we have to be careful,” he said, during the government’s weekly Covid-19 media briefing.

On Tuesday, the Union health ministry issued standard operating procedures (SOPs) ahead of the festive season to curtail the spread of the infection. These included a cap on the number of people at events and gatherings, staggered timings and restricted entry during fairs, Puja pandals, Ramlila pandals or concerts and plays. “The next few weeks will be extremely crucial because quite a few factors will be at play that can cause a rise in cases. With the festive season here, people need to develop a sense of individual responsibility when they visit temples, pandals or family gatherings. Add to this the fact that in winter people tend to stay indoor with shut windows, creating ideal

conditions for viruses to thrive. Wearing masks, observing hand hygiene and social distancing become even more important now, and I hope people don’t forget this,” Dr Jameel said.

“During the festive season people will be visiting relatives, and since it will be cold, they may gather indoors with windows shut. All of this ends up creating ideal conditions for the spread of infections. In the festive spirit, people also tend to talk louder or they end up singing – studies have also shown that viral particles tend to travel larger distances in such circumstances. All of this increases the chances of infections rising,” said Dr Lalit Kant, former head of the department of epidemiology at the Indian Council of Medical Research (ICMR).

– *The Hindustan Times*





### Unlock 5: Events industry gets permission to hold B2B exhibitions

While permitting more economic activities to reopen in the Unlock 5 phase, the Ministry of Home Affairs (MHA) has issued guidelines for the next one month starting from October 1. As per the new Unlock 5 guidelines, the government today has allowed more social, academic, sports, entertainment, cultural, religious and political events. However, the number of people has been limited to 50% of the space capacity of the event area with a maximum limit of 200 people from October 15.

In open spaces, keeping the size of the ground/space in view and with strict observance of social distancing, mandatory wearing of face masks, provision for thermal scanning and hand wash sanitiser, events can be held, said the new guidelines.

The state and the UT governments will issue detailed SOPs to regulate such gatherings and strictly enforce them. However, international air travel passengers will be prohibited from attending these events unless permitted by the MHA, the guidelines said.

As per the Unlock 5 guidelines, B2B exhibitions will be permitted to open with effect from October 15 for which SOPs will be issued by the Department of Commerce. The decision has offered some respite to the events industry stakeholders including the hospitality industry. Agencies like India Convention Promotion Bureau (ICPB), EEMA have been asking for reliefs for the sector to restart businesses.

Similarly, cinemas, theatres, multiplexes will be permitted to open with upto 50% of their seating capacity, in areas outside the containment zones with effect from October 15. Guidelines will be issued by the Ministry of Information & Broadcasting.

The new guidelines also give the states and UTs to decide in respect of reopening of schools and coaching institutions after October 15 in a graded manner.

– *ETTravelWorld.com*

### Roll-out of Feluda test expected in next few weeks, says Harsh Vardhan

Union Health Minister Harsh Vardhan on Sunday said the government has not yet taken a view on granting emergency authorisation to COVID-19 vaccines in India, as and when they become available. The minister was quoted as saying by PTI that the Feluda paper strip test for SARS-CoV-2 diagnosis could be rolled out in the next few weeks. Presently COVID-19 vaccines are in various stages of phases 1, 2 and 3, the results of which are awaited, Vardhan said during an interaction with his social media followers on 'Sunday Samvad' platform.

"Adequate safety and efficacy data is required for emergency use authorisation, vaccine approval for ensuring patient safety. Further course of action will depend on the data generated," he underlined.

The Union Health Ministry Sunday said that the number of recoveries in India have crossed the 60-lakh mark. The top five states with maximum caseload (61 per cent active cases) are contributing more than half (54.3 per cent) of the total recoveries, it further said. India's coronavirus caseload crossed the 70-lakh mark on Sunday, while the total number of recoveries reached 60,77,977, according to data from the Union Health Ministry.

A total of 74,383 infections were reported on Sunday, taking the country's caseload to 70,53,807, while the death toll touched 1,08,334, with 918 deaths in a day. There are 8,67,496 active cases of coronavirus in the country, comprising 12.29 per cent of the total caseload, the data stated.

India is the second worst-hit country in terms of total coronavirus cases, after the United States, while it is third in spot in terms of fatalities globally after the US and Brazil, according to John Hopkins University data.





### **Explained: When will we have a Covid-19 vaccine and why this month is crucial?**

When will an antidote against Covid-19 finally become widely available? The answer to this question may eventually be found this month as a handful of coronavirus vaccine candidates near the end of late stage clinical trials. At least two vaccine frontrunners — Pfizer and Moderna Inc — are set to release late-stage and Phase 2 results this month.

While experts have said vaccines were likely to reach the general public in the March-April 2021, drugmakers have been more ambitious with their calculations, with some firms like Moderna Inc eyeing the emergency-use authorisation route to launch their shots by year end. In fact, Pfizer may also file for US FDA approval of its vaccine this month itself, Bloomberg reported.

There are 182 vaccine candidates in pre-clinical or clinical trials across the world. Of these, 36 are in clinical trials and nine in final states of human trials. In India, where two vaccines are in phase II trials and the one by Oxford in phase III, the Union Health Ministry has said it was expecting supplies to be available from January next year.

Here is when drugmakers are eyeing release of their Covid-19 vaccines

#### **Moderna Inc coronavirus vaccine**

US biotechnology company Moderna, whose mRNA-1273 vaccine is undergoing phase-3 clinical trials in the United States on 30,000 participants, has said it might seek emergency-use authorisation (EUA) after November 25 once it had enough safety data. During public health emergencies, drug regulators allow the emergency-use authorisation of unapproved medical products or treatments.

“November 25 is the time we will have enough safety data to be able to put into an emergency-use authorization file that we would send to the FDA,” Moderna CEO Stephane Bancel told Forbes. However, he said approval wouldn’t be expected until the late first quarter or early second quarter of 2021.

Recent trial results: Recently, results of phase 1 trials of the mRNA-1273 vaccine showed that it was well-tolerated and generated a strong immune response in older adults (participants over 55 years of age).

The study, published in the New England Journal of Medicine, found that the immune response to the vaccine seen in older volunteers was comparable to that seen in younger age groups. Moreover, the blood of vaccinated volunteers contained robust binding and neutralising antibodies against SARS-CoV-2.

#### **Pfizer coronavirus vaccine**

Pfizer Inc, which has jointly developed a candidate with German partner BioNTech SE, plans to distribute its single nucleoside-modified messenger RNA (modRNA) vaccine to Americans before the end of the year if found to be safe and effective, CEO Albert Bourla has said in an interview.

Pfizer has said it would submit data from the late-stage trial of its BNT162b2 vaccine to the FDA by end of October, putting it ahead in the race than Moderna. “If the FDA approves the vaccine, the company is prepared to distribute hundreds of thousands of doses this year itself,” he said in an interview on CBS television network.

Recent trial results: Two vaccine candidates — BNT162b1 or BNT162b2 — have gone into human trials so far. According to a report based on early phase clinical trials, published in the journal Nature, both the Pfizer vaccines induced a “robust” immune response in healthy adults aged 18-55 years. However, the BNT162b2 vaccine generated a lower adverse reaction, making it the safer candidate of the two.

#### **Oxford-AstraZeneca coronavirus vaccine**

According to a report in The Times, pharmaceutical giant AstraZeneca could get the required clearances for the Oxford University vaccine candidate by Christmas in the UK. A full vaccine roll-out programme for the masses could take six months or less after approval, the report said. Scientists are hopeful last-stage trial results would at least show that the ChAdOx1 vaccine (also christened AZD1222 and Covishield in India) prevents 50 per cent of infections, the threshold for success.

Recent trial results: On September 9, the vaccine trials were halted after one of the participants in the UK developed an “unexplained illness” in an adverse event. The participant reportedly had developed a serious spinal inflammatory syndrome called transverse myelitis. Trials, however, resumed in the UK on September 12. A report on early-stage human trial data of the vaccine



candidate showed it had triggered a dual immune response in humans. Made from a weakened version of a common cold adenovirus that causes infections in chimpanzees, the vaccine induced neutralising antibodies that rendered the virus non-infectious in “all participants” who had been administered a second dose, a paper published in The Lancet said.

#### **Johnson and Johnson coronavirus vaccine**

Johnson and Johnson, which began a 60,000-person phase III trial of its single-shot JNJ-78436735 vaccine last month, expects to submit results by the end of the year or early 2021. If they are positive, the company said it would seek emergency use authorisation. J&J plans to manufacture as many as 1 billion doses in 2021. The antidote stands out from the rest since it is the first one that could potentially be a single-shot vaccine. Vaccines by Moderna Inc, Pfizer Inc and AstraZeneca all require two shots separated by several weeks. Recent trial results: Phase 1/2a human trials showed that a single dose of the vaccine induced a strong neutralising antibody response in nearly all participants aged 18 years and older and was generally well-tolerated. Participants aged 65 years of age also showed strong humoral and cellular immune responses.

#### **Russian coronavirus vaccine (EpiVacCorona)**

Nearly two months after Russia became the first country to approve a Covid-19 vaccine (Sputnik V) amid scepticism from the global scientific community, the country is likely to approve another shot as soon as October 15. Named EpiVacCorona, the vaccine is being developed by Vector State Virology and Biotechnology Center. Russia plans to

manufacture an initial 10,000 doses, with production expected to begin in November. Recent trial results: Siberia’s Vector Institute completed Phase II human trials of the vaccine in September and none of the volunteers showed any side effects except experiencing sensitivity at the injection site, Sputnik news said. “The first two phases of clinical trials demonstrated the effectiveness and safety of the EpiVacCorona vaccine,” Vector’s press department told the Interfax news agency.

– *The Indian Express*

#### **India’s active caseload of Covid-19 decreases but fear of resurgence remains**

The health ministry on Sunday said that five states which have contributed to the highest number of cases are also contributing to the maximum number of recoveries.

India has seen a fall in the number of new daily cases of Covid-19 since October 7, indicating that the first wave of the coronavirus disease are showing signs of receding in the country.

The health ministry on Sunday said that five states which have contributed to the highest number of cases are also contributing to the maximum number of recoveries. More than 60 lakh people have recovered from coronavirus until Sunday, it said.

India experienced a spike in cases in September and was recording more than 90,000 cases between September 6 and September 20. The number of fresh cases

started dropping from September 21 onwards and India has seen a decline in the number of daily cases since.

The country took 13 days to reach seven million cases from six million mark. Most of these cases were reported from Maharashtra, Karnataka, Kerala, Andhra Pradesh, Tamil Nadu and Uttar Pradesh. Barring Kerala and Karnataka, all the other states have seen their caseloads reaching their peaks.

However, experts say that the festival season which is a week away from now has the potential to elevate the number of cases ahead of the winter season. The health ministry has issued a set of standard operating procedures to ensure that social distancing is maintained during the festivities.

Doctors fear that if the number of cases rise after the festive season, as seen in Kerala after Onam, the gains made in the weeks leading up to the festivities could be lost.

“We have to work aggressively to make sure that during winter months and during the festive season coronavirus cases don’t rise dramatically,” AIIMS director Dr Randeep Guleria told the Associated Press.

The health ministry has asked community leaders responsible for organising the festivities to adhere to the Standard Operating Procedures (SOPs) and make adequate arrangements for masks, hand sanitisers and infrared thermometers at festival venues during Navratri, Durga Puja and Diwali.

– *The Hindustan Times*

Hyve India Pvt Ltd has come up with a weekly e news alert program - 'Market News & Views'

This program will cover Industry Updates, Launch of New Technologies, Partnership Opportunities, Industry Views & CSR activities. The purpose of this program is to keep customers up to date with developments in the Industry.

## INDUSTRY UPDATES



### Mondi Launches Water-Resistant Paper Bags for Cement Industry

Mondi, a leading global packaging and paper manufacturer, has partnered with Adelaide Brighton Cement and Pope Packaging on the development of a new water-resistant paper bag called 'Rain Barrier,' made out of Mondi's Advantage Protect White sack kraft paper, for the Australian construction market.

Standout characteristics include its water repellent surface and high tensile strength in a wet environment. While a standard paper bag absorbs water, the qualities of the Rain Barrier bag, keeps water from seeping in, as it stays on the surface where it evaporates. The paper itself is rain resistant for up to six hours and can resist water ingress for up to five full days when stored in damp conditions.

After being actively involved in testing and developing the new product, Adelaide Brighton Cement, one of Australia's leading producers of cement, hydrated lime and

packaged products, is the first business in the country to market the new innovative product. The business is in the process of converting all of their cement and hydrated lime paper bags, manufactured in South Australia and the Northern Territory, across to Rain Barrier bags.

– *Paper Mart*

### PepsiCo Joins Recyclable Paper Bottle Consortium

PepsiCo has joined the consortium of global consumer goods companies, including Unilever, to further develop and scale the world's first recyclable paper bottle, initially developed by Diageo and Pilot Lite.

It is our belief at PepsiCo that no single organization or industry can solve the plastic waste challenge on their own. That is why we are working on innovative solutions with peers pre-competitively through partnerships like this with Pulpex Limited, as well as others like our work with the Carbios Consortium on enzymatic recycling, the development of a renewable bottle with NaturALL Bottle Alliance and our work with Danimer Scientific on compostable and bio-based flex films. Our hope is that we can leverage our scale and reach to accelerate change and meaningful progress through collaborative, holistic solutions.

Innovative solutions and partnership are critical to driving meaningful progress toward a circular economy. The Pulpex consortium is well positioned to deliver sustainable packaging at scale and across industries, having impact beyond what any organization could achieve alone. We're proud to be a part

of it – Simon Lowden, Chief Sustainability Officer, PepsiCo. This new bottle is made from sustainably sourced pulp to meet food-safe standards and is being designed to be fully recyclable in standard waste streams. The goal of the consortium is to ensure that the technology is developed so it can be used across industries. PepsiCo expects to test our own branded paper bottles, based on Pulpex Limited's design and technology in 2021.

We're very excited to be working on this breakthrough technology and moving toward solving the technical challenges around developing beverage packaging from renewable resources. Paper is a highly recycled material and can be sustainability sourced, but poses

numerous complexities for containing beverages. Our R&D team is incredibly proud of this effort to find solutions to these challenges and drive our sustainability agenda forward – Ron Khan, VP of Beverage Packaging, PepsiCo. Through this innovative effort, PepsiCo is taking another step towards our goal of reducing virgin plastic content across our beverage business by 35% by 2025. We are also working to make 100% of our packaging recyclable, compostable, or biodegradable by 2025—and we are about 90% complete. Through this partnership and continued efforts, we continue to drive progress toward a circular economy where plastics need never become waste by focusing on Reducing, Recycling, and Reinventing our packaging for consumers.

– *Paper Mart*



## PKV to Invest EUR 280 Million in Cartonboard Production

Papier- und Kartonfabrik Varel (PKV) is continuing to consistently implement its strategic program, which comprises a total of EUR 280 million, with future-oriented investments in its cartonboard production.

These days, engineers and fitters are putting the finishing touches to major investments in equipment for PKV board production: board machine 2 will soon be able to use a completely new online sheeter, and the sheeter of board machine 3 has been extensively modernized. Both machines from the renowned Spanish manufacturer Pasaban will thus ensure even higher quality in board production in future. Among other things, this will include further improved state-of-the-art precision cutting, higher availability and thus a larger cutting capacity, so that the company is well prepared for further investments in board machines.

“High-quality cardboard made of wastepaper is sustainable, flexible and resilient – this product has a future,” says PKV shareholder Kristian Evers. “In Varel, we have always made sure that we are as broadly based as possible for our customers. These investments will help us to move forward – together with our outstanding know-how, especially in the area of high grammages.”

Cardboard is produced in Varel in basis weights between 350 and 1400 g/m<sup>2</sup>, as gray or brown board, GD or GT and laminated quality. All products are FSC-certified and recyclable in accordance with the EN 13430 standard. Customers use the versatile and

high-quality products in the food industry, for industrial solutions, point-of-sale packaging or, for example, for heavy-duty shipping envelopes made of brown cardboard. In cooperation with the PKV sister company Jade-Pack, PKV cardboard and paper are also used to create special solutions for the highest technical requirements in the packaging of food and industrial goods.

Further investments in cartonboard production are in preparation, for example a modernization of the stock preparation. The Varel paper and board mill will further develop its plant in the coming years to a production capacity of one million tons of corrugated board paper and board. As has been the case since 1950, the raw material for this will be recycled wastepaper. At the same time, PKV continues to improve its energy efficiency through numerous investments. All these projects are part of a seven-year strategic program with a total volume of around EUR 280 million, which PKV is currently implementing to strengthen and modernize the site.

– *Paper Mart*



## WestRock to reduce SBS capacity by approximately 200,000 tons

WestRock Company plans to reduce its solid bleached sulphate (SBS) mill system production capacity by 200,000 tons by shutting down one paper machine at its Evadale, Texas, mill.

This shutdown of the paper machine at the Evadale mill is expected to occur by the end of 2020 and reduce headcount at the mill by 60 employees. The remaining two machines at the Evadale mill will continue to support important end markets, including liquid packaging, foodservice, food and premium coated pre-print liner for corrugated boxes, among other grades. The company's total SBS production capacity after this action will be approximately 1.9 million tons.

“As a company, we aim to balance our supply with our customers' demand,” said Patrick Lindner, chief innovation officer and president, Consumer Packaging for WestRock. “Given current economic conditions and anticipated supply needs, we believe that reducing production capacity at the Evadale mill will improve its competitiveness while enabling WestRock to more efficiently serve our customers.”

– *Papnews*



### **Voith successfully executes start-up of five BlueLine OCC stock preparation lines for Nine Dragons Paper**

In early 2017, Voith received an order for six BlueLine OCC stock preparation lines from Nine Dragons, the largest manufacturer of packaging paper in Asia. With the recently commissioned PM 41 at the customer's Hebei site, five Voith BlueLine OCC lines, each with a production capacity of 2,000 tons per day, have now been successfully launched. The handover of the sixth line is planned for 2022.

Nine Dragons is leading the industry in sustainable paper manufacturing based on the management philosophy "no environmental management, no papermaking." The continuous expansion of new production capacity benefits Nine Dragons in strengthening its leading position in the packaging industry.

The five OCC stock preparation lines are the sole expansion that Nine Dragons has carried out over the past three years. Voith received the contract as the full-line supplier to deliver the entire approach flow systems together with the complete stock preparation portfolio. While China is implementing restrictions on recovered fiber imports and stringent environmental regulations, papermakers are partnering up with suppliers who are offering leading sustainable solutions and technology in plant operations and stock preparation. Voith's complete OCC solution creates sustainable and eco-friendly competitive production lines with 15 to 20 percent reduction in energy consumption and at least 0.5 percent fiber savings.

The Nine Dragons project demonstrates Voith's ability to collaborate and manage the installation and commissioning of multiple orders on time, even under a tight project schedule and with the impact of COVID-19. When the pandemic strongly affected the project due to traffic and logistics interruption, Voith used all means of communication to collaborate with its customer. With a proactive and problem-solving attitude, the Voith team successfully completed the projects.

**- Papnews**

### **Andritz acquires Enviroburners**

Andritz has acquired the Finnish company Enviroburners Oy, which designs and manufactures advanced industrial burner solutions for energy production and environmental protection.

The company was established in the mid-1970s, and has been a trusted sub-supplier of ANDRITZ for decades.

The acquisition includes all of Enviroburners' intellectual property rights, technical expertise, tools, systems, and inventory. The company supplies industrial burners, burner upgrade parts, and services that strengthen ANDRITZ's self-sustainability and reliability in the area of burners, and will provide growth possibilities especially in environmental protection application where hazardous materials are burned in order to produce new raw materials such as complicated Non-Condensable Gas (NCG) systems combined with sulfuric acid production, wood powder burning to replace fossil fuel usage in lime kilns, and methanol and turpentine combustion in recovery boilers and many more.

The Enviroburners organization will be fully integrated into the ANDRITZ Pulp & Paper organization. Enviroburners is located in Vantaa, Finland.

**- PULPAPERnews.com**







## Mondi and BIOhof replace plastic wrapping with fully corrugated solution for fresh produce

Mondi, a leading global packaging and paper manufacturer, has collaborated with BIOhof Kirchweidach, an organic farm in Bavaria, to design a sustainable packaging solution for 500 gram packs of tomatoes on the vine to be distributed to Penny supermarkets, owned by major German retailer Rewe Group. Coral Tray fulfills BIOhof's objective of replacing its previous packaging, which used 2.5 gram of plastic film per pack, with a recyclable and plastic-free solution, supporting Rewe Group's sustainability goals. It's called 'Coral Tray' because of its resemblance to undersea coral and contribution to reducing plastic waste, potentially helping to protect marine life. This innovative new packaging is fully recyclable and made of renewable material and recycled corrugated board, which has

an average recycling rate of over 80% in Europe.

Packaging experts at Mondi Grünburg in Austria worked with BIOhof's team to design the one-piece corrugated tray with integrated lid made of lightweight F-Flute. Both the fluting and outer liner are made of 100% recycled material and the KraftTop inner liner ensures it meets food contact requirements. The new solution can be mechanized for up to six different package sizes and gives BIOhof the option of using it for other small organic produce.

"At Mondi we are committed to being sustainable by design and were delighted to work with BIOhof to help expand their portfolio of sustainable packaged products. The Coral Tray offers great shelf appeal. Mondi's expertise ensured the perfect balance was struck between good consumer view of the product inside, tray stability for stacking during transport and perfect stiffness for mechanisation," said Jan Blankiewicz, product innovation manager at Mondi Corrugated Solutions.

"Due to the stability of the packaging, the product is extremely well protected against damage. It also eliminates the risk of the tomatoes being bruised in the shopping basket or on the way home with consumers. The goods breathe through the air holes, which reduces the risk of mould forming. Likewise, condensation cannot form, which often happens with plastic packaging," said Florian Steiner, managing director of BIOhof Kirchweidach.

– *The Packman*

## BTG Enhances its Consistency Measurement Portfolio

BTG is adding a microwave transmitter to its leading consistency measurement portfolio, a technology previously supplied by Voith Paper.

BTG continues to lead the global consistency market and this latest addition "further strengthens our ability to provide the best technologies to support our customers' needs" says Dan Smith, Global Business Director for BTG's Process Solutions Business.

With this addition, BTG offers now all consistency measurement technologies, allowing experts to provide the best possible solution to any customer. Consistency measurement is vital to the papermaking process including process stability, raw material costs and final product quality.

BTG Group is a multinational provider of integrated, highly specialized process solutions for the global pulp and paper industry. BTG is committed to helping its customers achieve significant, sustainable gains in business performance.

– *Paper Mart*







## Jani Sales Commences Production of 100 TPD Kraft Paper at PM1 in Gujarat

With its new plant operational, Jani Sales is likely to be one amongst the leading manufacturers of MG papers in Western India.

Jani Sales has started the manufacturing of 18BF to 25BF MG Kraft Papers in the range of 30 to 70 GSM at its Paper Machine 1 in Sarigam, Gujarat.

The 100 TPD Lucart machine will cater to both the domestic and overseas market. The company will be producing MG Kraft paper, poster paper as well as tissue. The initial commercial production will focus majorly on kraft paper. PM1 will be able to process virgin fibre or fibre from recovered paper as necessary.

– **Paper Mart**

## Belfast packaging firm invests £5m and creates new jobs

A growing demand for sustainable packaging has driven East Belfast packaging company MSO Cleland to make a £5m investment in its business and create 35 jobs. MSO specialises in complete packaging solutions from design through to delivery of cartonboard packaging and labels for the food and drink, and pharmaceutical sectors. Invest Northern Ireland's chief executive Kevin Holland said: "This investment is an important strategic step for MSO Cleland, which has clearly identified a business opportunity and is investing to capitalise on it.

"Over the last number of years, demand for sustainable packaging has surged as companies and consumers look to reduce their dependency on plastic packaging. Recognising this, MSO is investing £5million to purchase new equipment, which will help it to build a strong and solid competitive position. In addition, the 35 new jobs will contribute £800,000 in annual salaries for the Northern Ireland economy and will help the company to accelerate its growth internationally.

"This announcement is a welcome boost for Northern Ireland's manufacturing industry as the sector works to recover from the challenges of Covid."

Joanna Calixto, managing director of MSO Cleland said: "Since taking over MSO in 2013, we have significantly restructured our business and worked hard to rebuild an impressive reputation in the packaging

industry across the UK, ROI and increasingly into Europe.

"We have just installed a new state of the art Heidelberg Lithographic printing press and over the next two months will be taking delivery from Bobst of Die Cutting and Gluing machinery. Invest NI's support has been invaluable in helping us make this investment."

In 2018, the company benefitted from a Knowledge Transfer Partnership with Ulster University, which helped it to increase its technical knowledge and move into the manufacturing of sustainable packaging.

Calixto added: "With COVID-19, it may seem a strange time to many to make this investment, but we've been laying the foundations for the last number of years. This has included creating our growth strategy and setting up our Apprenticeship scheme, focusing on the right skills set and business culture for our workforce in preparation for this next phase.

"This investment gives us the latest capabilities, enabling us to continue to innovate and add value to our customers' packaging."

– **Packaging News**



## Toscotec starts up two AHEAD 2.0L tissue lines at Sofidel America

Two Toscotec-supplied AHEAD 2.0L tissue machines came online at Sofidel America's mill in Inola, Oklahoma. Shortly after start-up, the two lines met Sofidel's quality standards, and have been running at a high operation efficiency, producing premium quality tissue.

In spite of the Covid-19 pandemic and the challenges it posed, Toscotec and Sofidel went the extra mile and managed to successfully complete the project in record time.

Toscotec delivered a turnkey plant including two AHEAD 2.0L machines of 5500 mm sheet trim width, 2000 m/min operating speed, each producing 60,000 tons/year. These machines are equipped with TT SYD Steel Yankee Dryer and high-efficiency TT Hoods, designed for a high level of energy recovery.

The supply also included the stock preparation system, Toscotec's patented TT SAF (Short Approach Flow), the DCS and QCS, as well as the dust and mist removal systems. Toscotec also supplied the boiler plant, the compressed air station, the bridge crane, the shaft puller, the roll handling and wrapping systems, the chemical preparation system, the hall ventilation system, and the water treatment plants.

Sofidel was provided with a comprehensive service package including the detailed mill engineering according to US codes and standards, the construction management, the plant and the machines erection,

training, commissioning, and start-up supervision.

Luigi Lazzareschi, CEO of Sofidel, says: "Today's achievement steps up Sofidel's strategic coverage in the U.S. market. Technological innovation is key to our Group. It allows us to deliver the product quality and safety that build consumer trust, and it makes us honor our long-term commitment to sustainability. I applaud the hard work and strong cooperation of Sofidel and Toscotec that made today's success possible."

Alessandro Mennucci, CEO of Toscotec, says, "It is a great satisfaction to see that two top-of-the-line Toscotec machines achieved great performances at Sofidel America. This excellent result rewards us for all the efforts that our teams made together over the past three years. We look forward to continuing this important partnership with Sofidel in the coming years."

- TissueMAG



## A Chinese podium for A.Celli Paper Tissue Machines with Crescent Former technology

In the 2020-2021 edition of the "Directory of Tissue Paper & Disposable Products" published by China Paper Association, A.Celli Paper SpA is among the top three suppliers of Tissue Machines with Crescent Former for the Chinese market in the 1988-2019 period. The introduction of this type of technologically advanced production lines has considerably increased production capacity in the Chinese tissue paper industry.

According to the China Paper Association study, by the end of 2019, 175 new Tissue Machines equipped with the Crescent Former technology were imported and started up in China for a total capacity of 7.006 million tons per year. A.Celli Tissue Machines have always based the formation of the tissue sheet on this technology, which involves the bonding of wire and felt immediately downstream of the headbox. This technique favors the separation of water from the fiber, ensuring a high quality product characterized by its softness and favoring substantial savings in terms of energy and materials.

A.Celli Paper currently has several projects underway in China for double format Tissue Machines, some of which are requested with Shoe Press, as well as several Tissue Rewinders. The Shoe Press is also a device, placed immediately before the Yankee Dryer, able to greatly increase the removal of moisture, with the double advantage of reducing energy consumption, necessary during the drying phase, and the possibility of obtaining papers of excellent quality with greater thickness, and therefore softer.

- TissueMAG

## INDUSTRY SPEAK



**Narendra Thakkar**

Director

Resistotech Industries India & International Business

Saving Capital and Maintenance cost in Pulp Manufacturing: Paper & Pulp industry is growing in India whereas there are always challenges associated with capital investment and long-term maintenance cost associated with Pulp processing. ClO<sub>2</sub> (Chlorine Dioxide) is largely being used in Pulp bleaching application and it involves high initial investment to have inhouse ClO<sub>2</sub> production plant as well as piping system for fiber line. PTFE Lined pipes are being largely used in ClO<sub>2</sub> handling in pulp industry due to reliability and safety.

Resistotech Industries has understood challenges associated with PTFE Lined Pipelines used for ClO<sub>2</sub> line and Fiber line in Pulp mills and developed new products to reduce initial capital investment.

Resistotech accepted toughest challenge in pulp processing industry and after 12 months of continuous trials and development efforts successfully

developed India's largest diameter seamless extruded PTFE liner up to 900 mm Diameter. Especially for Pulp industry Resistotech developed 6-meter-long PTFE Lined pipe up to 24-inch Diameter. Earlier days maximum length was 3 meters only which leads to more joints and higher cost of additional flanges.

With new development, flange joints came down by 33 % and Cost of piping goes down 15-20 % depending upon size which offered direct upfront saving to pulp mills. All PTFE Lined Pipelines, Fittings, Bellows, Columns are compliance to Internationally accepted ASTM standards which saves heavy maintenance cost in longer term, avoid premature failure of pipelines and reduces production downtime drastically.

New optimized design pipelines with competitive cost & improved performance Vs Traditional materials for ETP (Effluent treatment plant) Pipelines is also available. It saves long term maintenance & Replacement cost by almost 50 %.

Resistotech currently focusing on complex challenges faced by aggressive chemical handling to find alternative solutions to expensive import substitutes & exotic metals like Titanium, Tantalum and Hastelloy for selective process equipment's within range of Fluoropolymers. More information available from company website [www.resistotech.com](http://www.resistotech.com)





## MEDIA SPEAK

### Russian pulp may be increasingly important to China's paper industry

China's Belt and Road Initiative is a global infrastructure development strategy adopted by the Chinese government that aims to invest in nearly 70 countries and international organizations. The initiative is poised to boost international trade, and it has the potential to accelerate economic growth across Asia, Central and Eastern Europe.

As part of the initiative, the China-Russia and China-Europe railways are already improving delivery capacities in the region. Per a recent article in Xinhua, "Foreign trade volume by railway through Manzhouli, the largest land port on the China-Russia border, exceeded 10 million tonnes in the first half of this year, up 6.4 percent year on year, according to official figures."

Major commodities moved across the border included coal, wood raw materials and construction machinery. China's pulp and paper industry is also benefitting from the expansion in trade.

"A total of 1,505 China-Europe freight trains passed through the port in the first half, an increase of 19 percent compared with the same period last year, carrying 134,700 TEUs of goods in total," Xinhua said.

The rail routes have also become an important transport channel for stabilizing global trade and recovery amid the COVID-19 pandemic, and authorities in the port of Manzhouli have increased efficiencies and reduced logistics and transportation costs. Manzhouli has become an important destination for

shipments of pulp to China, which is oftentimes routed to manufacturers in Hebei Province.

According to statistics from Manzhouli customs, in the first half of 2020, 236,000 tons of pulp were imported through the port, an increase of 99.9% over the same period last year, with a value of 830 million yuan—an increase of 57.5%.

Pulp & Paper Insights. Three rail routes have been laid out along the western, middle, and eastern territories: The western passage leaves China through the Alashankou (Horgos) in the central and western parts the country; the middle passage through Erlianhaote from North China, and the eastern passage via Manzhouli from the coastal areas in the eastern parts of China. As a major global consumer of wood pulp, accounting for about 35% of total demand, China primarily relies on imports to meet its demand. In 2019, China imported roughly 23 million tons of market pulp, including about 10 million tons of softwood pulp. Canada (27%), Chile (16%), Finland (15%), the United States (14%) and Russia (11%) were the top five exporters supplying this softwood pulp.

There are vast coniferous forest resources in Russia, and the manufacturing cost is relatively low. Looking at the cash production cost of NBSKP via the cash production cost module in FisherSolve Next, we can see that Russia has the lowest average cash production cost in the world (260-270 USD / BDT), which is about 25-30% lower than the average cash production cost of Canada. According to Fisher data, the current production capacity of market wood pulp in Russia and Belarus is roughly 3 million tons, of

which coniferous pulp accounts for about 65%.

Over the next five years, about 5 million tons of market pulp capacity will enter the supply chain, of which about 3 million tons will be coniferous pulp, which will greatly increase global demand.

Fisher believes that after the total ban on imported RCP that will take effect in 2021—along with the impact of growing anti-plastics sentiment and the transition to more paper packaging—China's demand for market pulp will increase in the future. Due to its unique position in an expanding market (low fiber costs, location, and position in the Belt and Road Initiative), Russia is poised to become one of the most important market pulp suppliers for China's robust pulp and paper industry.

– PULPAPERnews.com



## Nine Dragons called off its investment plan for paper making in India

China's largest paper manufacturer giant Nine Dragons Paper has completely called off its plan to set up a multi million dollars paper making infrastructure near Paradip, Odisha. "The plan has been cancelled last year in December for the multiple reasons. The main one behind the call off is China – US trade war, they were under stress," Said Mr. Varoon Narang, Vice General Manager at Nine Dragons Paper Holdings Ltd. to The Pulp and Paper Times. Nine Dragons was supposed to set up a unit in the state and investment of INR 4500 crore over five years to create 10,000 job opportunities, a statement from the chief minister's office (CMO) said. Nine Dragons Paper will invest 12 billion rupees (£1.28 billion) to construct the mill, which is expected to open its first phase in 2022.

"During the Period, the economic environment remained challenging both at home and abroad. The ongoing trade negotiation between China and the U.S., coupled with further depreciation of RMB against USD and the significant reduction of import quota of quality recovered paper, posed huge challenges for the paper manufacturing industry in China. Despite the capricious market environment, China's economy still retains its resilience with the inelastic demand in the downstream rallied as compared to the preceding period, providing rooms for price hikes," admitted by Ms. Cheung Yan, Chairlady Nine Dragons Paper in the Annual report for FY19-20.

"Instead of expanding immediately in India,

they go to invest in defunct paper mill purchased in US by them. Yes, the situation was daisy here in India and process is seemed to be time-consuming," Mr. Narang further revealed.

Nine Dragons has now totally drawn off its the expansion plan in India.

On investment in US, report says that, "On The Group's annual design production capacity in packaging paperboard, printing and writing paper, high value specialty paper and pulp products of which including the four US mills capacity as at 31 December 2019 was approximately 17.3 million tpa in aggregation, comprising approximately 9.1 million tpa of linerboard, approximately 3.4 million tpa of high performance corrugating medium, approximately 2.6 million tpa of coated duplex board, approximately 1.1 million tpa of printing and writing paper, approximately 1.1 million tpa of high value specialty paper and pulp products. The four US mills capacity of approximately 1.3 million tpa, including of approximately 0.9 million tpa coated one-side, coated free sheet and coated ground wood grade for printing and writing paper and specialty paper products; and of approximately 0.4 million tpa recycled pulp and kraft pulp products"

Ms. Yan further stated on the capacity of Nine Dragons, "We added packaging paper production capacity of 0.95 million tpa, which has enabled us to enjoy greater economies of scale. As of 31 December 2019, the Group's total designed production capacity for paper production amounted to

16.47 million tpa. The aggregate new packaging paper production capacity of 1.10 million tpa at the Hebei and Dongguan based is scheduled to commence production in the first quarter of 2020. Combined with the newly added packaging paper production capacity of 0.55 million tpa in Malaysia in 2021, the Group's total designed production capacity for paper production will exceed 18 million tpa"

While 2020 is deemed to be a year of challenges for both the global and the Chinese economy, the recent outbreak of COVID-19 has posed even greater difficulty to the entire packaging industry of China.

"In addition, we have set up a new base in Malaysia to increase the production capacity of recycled pulp by 0.48 million tpa. In respect of paper manufacturing, we added a total production capacity of 0.95 million tpa for linerboard in Shenyang and Quanzhou to enjoy greater economies of scale. Regarding the downstream industry chain, we have successfully expanded our scope of business to include the production of corrugated sheet and corrugated boxes by acquiring the packaging plants, as well as carried out a series of management optimization, all of which allow us to provide one-stop premium services to end-customers," report says.

– *The Pulp and Paper Times*





### **Kraft Paper Mills' Input cost increased; finished paper price is bound to surge**

The lockdown-led disruption has hit the supply chain of paper mills badly. The price of local waste paper has increased by 45 to 50 percent in the last two-three months which is mounting pressure on the finished paper prices to be hiked by the paper mills. Kraft paper mills all across India are bound to increase the finished paper price by 20 to 25 percent on an immediate basis, to compensate their input and conversion cost. "Margins are on the risk, local waste paper price has been increased by 50 percent in last three months, currently, waste paper is being

supplied to paper mills at Rs. 14.50 per kg, which was at Rs. 9 to 10 per kg in May and June. It is almost 50% steep hike and we are not getting the propionate price realization of our finished paper," said Mr. Hardik Patel, Director at Om Sree Papertek in Hyderabad. He said, we immediately demand to increase the price of paper by 20 to 25 percent to compensate for our margins.

During the last two-three months, paper mills have gradually increased Rs. 3 per kg on finished paper, while the input and conversion cost is still exceeding over the finished paper price which requires more hike up to 20 to 25 percent.

Both domestic and imported waste paper prices have gone up by Rs 4,500-5,000 per tonne during the last couple of months due to disruptions caused by the COVID-19 pandemic. Also, the impending Chinese ban on waste paper has pushed Chinese mills to lap up whatever supplies of waste paper and finished products are available in the overseas markets.

"The price of finished paper is hovering around at Rs. 22 to 22.50 per kg. despite this, the waste paper's price is touching to Rs. 14.50 per kg. We are not getting the desired price from the market to cover up our conversion cost which is stood at Rs.10 per kg," Said Mr. Deept Agarwal, Director at Paswara Papers Limited.

"Survival of a paper mill is very much important in this scenario, we are also seeking price increased on the finished paper. Domestic demand is being plummeted and paper mills are more or less

dependent on China's orders also," said Mr. Manoj Patel, Director at Sukraft Group.

Mr. Hardik further said, "We are not against the corrugators and totally support them in this hard situation, but we must see our viability first. Our expenses should be fulfilled,"

"We support immediate Rs. 1 per Kg. price increase on the finished paper" Mr. Manoj Patel said.

The corrugated box industry, which mainly comprises micro, small and medium enterprises (MSMEs), are reeling under surge in prices of kraft paper and other conversion input costs -- increasing the cost of end products by 15-20 per cent depending on the strength of the packaging boxes, Indian Corrugated Case Manufacturers' Association (ICCMA) Vice President Harish Madan told PTI.

In this Corona situation, demand for finished Kraft Paper has been dropped by 40 percent and most of the paper mills are selling their paper at par in order to sustain their operations in continuity.

According to sources, Paper mills in Muzaffarnagar and Meerut are likely to increase the price by Rs 2 per kg in next 8 to 10 days.

Imported waste paper price is hovering between \$ 165 and \$ 190 per tonnes, if the local market gets demand in coming months for finished paper, waste paper price will automatically zoom up.

**– The Pulp and Paper Times**





### **DIC India launches mobile app to offer seamless troubleshooting**

DIC India, a global leader in printing technology and allied solutions, has launched

its first-ever mobile application in India called DIC India Ink Master App, to provide Indian customers a unique platform to address their day-to-day operational queries. With physical channels of interaction witnessing a decline in the wake of the pandemic, digitization has becoming the new normal for both consumers and businesses. Hence, to offer a bilateral communication platform to its customers, DIC India has introduced a self-help mobile application, which is a part of the company's holistic digital engagement strategy.

Developed mostly to address the needs of the local ink industry, DIC India Ink Master app lists down possible operational problems and solutions related to lamination adhesive, news inks, flexographic, gravure, offset printing etc. faced by a printer or a converter. Additionally, the app will also offer a dedicated section called 'Raising a Query' that will allow customers to request for guidance on new problems faced by them. In order to provide a seamless and timely response to the users, the app will be monitored 24x7 and 365 days by an assigned team at DIC India.

"The pandemic has forced businesses across sectors to adopt digital first approach. More than ever now, we are living in a contactless world wherein the majority of interactions with both customers and partners have now moved virtually. Thus, to further build on our commitment towards the Indian printer and converter community, we decided to introduce DIC India Ink Master mobile app. Through this app, we want to

ensure our customers that DIC India is the right partner for them that will address their present and future concerns with respect to activation or maintenance of their printing presses etc.," said Manish Bhatia, managing director and CEO, DIC India."

He added, "We at DIC India, have been consistently investing our resources into developing the right engagement channels in order to stay in a close proximity with our customers, especially during these uncertain times. We were the first company in India to bring e-ordering to our customers as part of our digital strategy. With the launch of this app, we are positive that the Indian printer and converter community will benefit greatly from it, thereby giving them a gain competitive edge."

Recently, to create mindshare of the Indian customers across Indian subcontinent about the toluene ban announced by The Bureau of Indian Standards (BIS) for food packaging, DIC India leveraged its digital initiative called DIC Konnect. Under this flagship initiative, the company hosted a series of webinars, which were organized with an aim to guide customer about the best industry practices to restart their printing process post the lockdown, address their concerns as well as demonstrate our robust product portfolio. DIC India Ink Master mobile application is an extension of the DIC Konnect initiative undertaken by the company and the app can download from iOS App store and Android Play store.

**– The Packman**

# NEW TECHNOLOGIES

## Krofta Engineering Ltd

Krofta can provide full Effluent treatment plants for various industries like paper, slaughter, tanneries, paint, etc.

- **Supercell:** Krofta Supercell is the most compact DAF machine having its versatility for installation and yet being performance driven.
- **Sedicell:** Krofta Sedicell is the most unique DAF which allows flotation and sedimentation in the same unit and is very robust to handle high loading of solids.
- **Spray Filter:** Krofta Spray Filter is accurately designed for paper industry which allows water to be reused in machine showers thereby reducing fresh water consumption.
- **Belt Filter Press:** Krofta twin wire belt press is the workhorse for all types of sludge dewatering and is low power consumption compared to centrifuge.
- **Effluent Treatment:** Krofta can provide full Effluent treatment plants for various industries like paper, slaughter, tanneries, paint, etc.
- **CPI / TPI Units:** Krofta CPI / TPI units are ideal for free oil removal prior to DAF's which ensure oil recovery.



# BUSINESS FESTIVAL OF PAPER INDUSTRY



a Hyve event

**6 - 9 December 2021**

Pragati Maidan, New Delhi India

Paperex is the largest paper industry event in the world and it takes place in New Delhi, India.

It is a "A Unified Business Platform for Paper Industry" for new business opportunities, joint ventures, investments and technology transfer in paper and allied industries.

Paperex is always very well attended by large gathering of Paper Manufacturers to explore the New Technology., Machinery & Equipment and Raw Material for Paper & Board Manufacturing.

And the mass audience of Paper Traders, Printers, Publisher, Converter and Paper Packaging Companies to explore the variety of papers at the show



**08-10 April 2021**

Chennai Trade Centre, India

## A sneak Preview:

- Meet 250+ exhibitors who will display latest products & services from 18 countries
- Learn new trends by attending technical conference by IARPMA
- Network with industry leaders at "Global Paper Technology Supplier" pavilion
- Delegation program to host international buyers
- 5000+ trade visitors from 20+ countries including 142 paper mills across India
- Visit "Paper Manufacturer" networking pavilion
- Engage with the leaders at "Exclusive Paper Mills CEO/MD Conclave"

## Business Connect Program

- **Market News & Views, a weekly e news alert program** covering Industry Updates , Launch of New Technologies , Partnership Opportunities , Industry Views, CSR activities
- **International Business Networking Program (IBNP) a monthly webinar** covering key industry across Indian as well as some neighboring countries including China, Taiwan, Bangladesh, etc
- **Open Seminars during the event**, a unique opportunity to have face to face interaction with industry leader and knowledge transfer



## Contact Us



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## SOME LEADING COMPANIES AT THE EVENT



### Servall Engineering Works Pvt Ltd.



Over 50+ years, Servall has partnered the pulp and paper Industry worldwide, answering its need for high performance, futuristic machinery. Today, Servall has earned itself the unique position of the complete manufacturer. The quest for excellence in Quality, Design & Engineering, Manufacturing & Technology has spurred SERVALL's electrifying growth over the years, enabling the company to carve itself a prominent place in the world map of pulp and paper manufacturers. It has successfully

executed complete paper machinery upto 400 TPD capacity. At Servall, the quest for excellence is never – ending, driving the company to innovate, upgrade and develop. Excellence in Products & Services

- Complete paper, board & kraft machines.
- Finishing house equipment.
- Drying cylinders and alloy cylinders for paper, food and chemical industries.
- Press rolls and Suction rolls of Ultra High Nip Loads and Extra large diameters.

Total Solutions from Servall offers total projects management and turnkey solutions, right from concept and design to engineering, erection, execution and commissioning. Total Solutions is Servall's way of saying to its customers: We're with you, right through!



### Safire Printing & Packaging Pvt. Ltd



We, Safire print pack are the prominent printing and packaging Company located at Chennai having its factory at both royapettah and Tirunindravur with over 50,000 square feet of built up space. We have attained phenomenal success in the printing industry over the years. Company has grown into a fully integrated print house with a host of single, two, four, six color offset machines, Flexo, gravure printing machines. We have end to end finishing machines to deliver the desired products for our Happy customers. We are the only company in South India to have combination of Flexo, offset, gravure printing.

Our company has been founded by Mr. Gunasekaran Ayyanathan in the year 1978. We began our journey has modest poster printing unit and gradually diversified into trading of imported used offset printing machine, manufacturing of books, Brochures, leaflets, stationery, mono cartons, labels, paper bags, hand fans, rigid



## Krofta Engineering Ltd



We introduce ourselves as the one of the leading suppliers of waste water treatment

equipment and complete water management solutions, having supplied more than 1200 systems for effluent and waste water applications. We have been in the wastewater treatment business since 1983. Mr. Raghvendra Khaitan, Managing Director since 1992 is the driving force behind Krofta. He has expanded Krofta's product range via a slew of International collaborations. Having achieved success in exports, tapping the vast overseas market is high on the agenda. Krofta is a world leader in clarifiers based on the Dissolved Air Flotation (DAF)

Technology. Krofta clarifiers have retention times as low as 3 minutes and with a possibility of resource recovery in some cases as opposed to the sedimentation methods characterized by very long retention times. In India we have over 1200 installations operating in diverse industrial segments, as mentioned in our partial customer list, enclosed for your ready reference. Water usage by industries is increasing at an enormous rate as industry is reliant on water for some part of their production process, be its use as a raw material, solvent, coolant, transport agent or energy source. With the proper treatment, a significant proportion of industrial on-site wastewater can be reused. Thus, going beyond mandatory requirements, wastewater is the most reliable and economic source of

water. Krofta provides industry with total water management - from pretreatment, through process water, liquid and wastewater. We market, design and manufacture one of the broadest ranges of equipment for this sector, providing end-to-end solutions for our customer's water and wastewater treatment requirements. We have a technical collaboration with AJV – Engineering Ky., Finland for Belt Filter Press and Stetfield Separators, UK for Oil interceptors.

## Resistotech Industries Pvt. Ltd.



One of fastest growing and largest fluoro polymer processor having in depth knowledge of processing and application, we are team of Engineers managing professionally for smooth operation on quality and delivery commitment to our valued customers. Valuable partner for corrosive media handling industry to provide standardized lined piping systems and critical customized products to solve corrosion related problems.

RESISTOTECH Industries Private Limited is committed to provide highest Quality of products and services by confirming the required international standard.

We will accomplish highest level of customer satisfaction by continual Improvement in QMS, by enhancing skills of all our employees and fulfilling customer Requirements.

We shall achieve leadership in international market for products we deal in through timely delivery of quality products, services and technical solutions for most critical applications at competitive prices with commitment of longest product life using right specified materials.

## Ecosure Pulp molding Technologies Ltd

We are a team of professionals with vast experience in pulp, packaging and machinery manufacturing both in domestic and international markets.

Our Goal

We are focused on sustainable utilization of agricultural materials for products that benefit rural communities and consumers. Agricultural feedstocks, both dedicated crops and residues, provide key building blocks for an array of products. EcoSure's core expertise is the development, production, and supply of agricultural feedstocks to feed its own manufacturing facility, producing high quality agricultural fibers and compostable products.

Our Efforts

We use a variety of agricultural feedstocks through a sustainable and efficient process to extract valuable fiber and other components. These clean fibers are then used to manufacture products like towel, tissue, packaging board, and molded fiber food service wares. Genera produces non-wood market fiber for commercial sales. Additionally, we custom manufacture molded fiber products in-house.





...and many more





...and many more

# Thank You

**COMBATING**  
**COVID-19**

Basic  
Protective  
Measures



USE FACE MASK



CLEAN AND DISINFECT



WASH YOUR HANDS  
FREQUENTLY



KEEP DISTANCE  
FROM OTHERS



AVOID TOUCHING  
EYES, NOSE OR MOUTH



STAY AT HOME  
WHEN YOU ARE SICK