Editors Message

By Brad S. Carlberg, P.E., CSE
Hoodsport, WA USA

Well, as I write this the last week of April, in the middle of spring, and I hope you all had a great Easter. Spring has finally arrived in Washington State and it's warming up a bit.

Please go to page 10 to read the Director’s Message from PUPID Director Ronaldo Ribeiro of Cenibra.

The bad news is that in the last quarter, PUPID has only had 7 new members and is down to 191 regular dues-paying members; and we now have 20 members that are in active grace status.

We are collocating with the 65th IEEE Pulp & Paper Industry Application Society Conference at the Hyatt Riverfront in Jacksonville, Florida. H. Pierce Rumph is presenting a 30-minute “Security & Access Control for Industry” powerpoint on Wednesday, June 26; and Patrick Dixon, “IoT: Security and Applications”, and Mike Hendricks of BTG, “Consistency Measurement”, are each presenting a 4-hour tutorial on Thursday, June 27.

Last month we awarded the 2019 PUPID $2000 Scholarship to Anthony Weise. Read about him page 11

Please do not hesitate to contact me at Brad S. Carlberg, P.E., CSE or to discuss how you can help PUPID.

I hope to encourage you to become more involved with the Division and to enroll more members.

Do feel free to forward the Newsletter to your friends and colleagues who may have an interest in it.
TUNING TIP CSE PE REVIEW QUESTION:

Example Actuator Sizing


We will size a direct-acting valve actuator for a process having the following data:

- Single seated globe valve with flow under the plug (to open)
- Delta pressure across the valve: 25 psig
- Stem travel: 1.5 inches
- Stem friction \( F_f \): 120 lb
- Actuator area: 78.5 Inches\(^2\)
- Port diameter: 2.0 inches
- Plug seating class: II (20 lb per lineal inch)

Find the answers to this question on page 16

Calendar of Events

Get a quick overview of the ISA PUPID events by going to the Calendar at:
https://www.isa.org/division/pupid/events/

Pulp and Paper Industry Committee (PPIC)
Industry Applications Society (IAS)
June 23 – 28, 2019
Hyatt Riverfront
Jacksonville, FL
http://sites.ieee.org/ias-pul pandpapercommittee/future-conferences/

2019 BLRBAC Meetings
Spring Meeting: April 8 – 10, 2019
Fall Meeting: October 7 – 9, 2019
www.blrbac.org

ABTCP 2019-52nd Pulp & Paper International Congress & Exhibition
October 22 - 24, 2019
Transamérica Expo Center, São Paulo, Brasil
https://www.abtcp.org.br/

ISA Strategic Leader Meeting 2019
May 18 – 20, 2019
Hilton University Place Charlotte
Charlotte, NC

ISA Fall Leader Meeting 2019
October 25 – 28, 2019
Paradise Point Resort
San Diego, CA
WELCOME TO THE 7 NEW ISA PULP & PAPER INDUSTRY DIVISION MEMBERS

Justin Singree  Brady L Franklin  Juan Eduardo Massri
Elio Ricci     Keith Lovett     Evan Wilson
Felipe Alexandre De Oliveira

HERE’S A REMINDER TO THE 20 ISA PULP & PAPER INDUSTRY DIVISION MEMBERS WHO NEED TO RENEW THEIR MEMBERSHIP

Chris D. Bassett  Ben Cammack  Jeremy R Mitchell, CCST
Claude Fillion     Manuel Silva   Brunda Kalyana Babu
Saul Emmanuel Mtakula  Chris Wilson  Bruce Smith
Pekka Kormano      Max Leach     Essam Abounokirah
Ellen Van London    Geoffrey Mallett  Rebeca Saraí Hernández Zaldaña
Michael Warnick    Nicole Gouhin  Jake Faeber
Garry W Medlin      Ross Walker

DON’T FORGET TO RENEW!

CCST question

Why must voltage be reduced along with frequency in a variable frequency speed controller?
A. to let the motor cool off.
B. because of capacitive reactance.
C. to maintain the volts/hertz ratio.
D. to keep the motor from overspeeding.

CAP question

All of the following instrumentation bus networks can be implemented with a single pair of wires, except for?
A. Foundation Fieldbus
B. DeviceNet
C. AS-i
D. HART

See page 15 for the answers to the CCST and CAP questions
WHO’S DOIN’ ANYTHING?

PAPCEL resumes project to rebuild two PMs at India-based NEPA

LITOVEL, Czech Republic, March 27, 2019 (Press Release) - In 2015 PAPCEL signed an important contract for reconstruction of two paper machines with a national company NEPA, India. Later in 2016 PAPCEL signed another contract with the same company for a delivery of new rewinder for paper machine No. 2 and reconstruction of the existing rewinder on paper machine No. 1. These deliveries of machinery equipment were carried out during 2016-2017. The project is a combination of PAPCEL’s deliveries alongside local deliveries in India. In 2018 the project was paused by the customer.

After complicated negotiations the customer managed to secure necessary conditions to finish this project and reopened negotiations with PAPCEL by the end of 2018 to continue the realization of the project. On March 1st 2019 additional clauses were signed to the previous contract by which both parties agreed to resume the project and successfully finish it.

Commissioning of both machines as well as rewinders is planned for the end of 2019.

Main parameters of paper machines:
- Outcoming product: newsprint and writing paper in the range of 40 - 80 g/m2
- Capacity: max. 230 t/day
- Machine speed: 700 m/min.
- Machine width in the reel: 5 350 mm

Valmet to supply Advantage DCT 100TS tissue machine for Papel San Francisco’s site in Mexicali, Mexico

ESPOO, Finland, March 28, 2019 (Press Release) - Valmet will supply an Advantage DCT 100TS tissue production machine to Papel San Francisco in Mexico. The new machine will be installed at the company's mill in Mexicali and the start-up is planned for the third quarter of 2020.

The order is included in Valmet’s first quarter 2019 orders received. The value of the order is not disclosed.

The new tissue line will fulfill Papel San Francisco’s need of new capacity for standard tissue products. Valmet has previously delivered four tissue machines to the company. Three Advantage DCT machines started up in 2006, 2009 and 2018. In addition, Papel San Francisco was the first to start up an Advantage NTT line in 2013, which fulfills the company’s demand of textured tissue.

"The choice to select the Advantage DCT machine was quite easy. Equipped with the Advantage ViscoNip press, it is the most efficient and best choice for the grades we need to produce. It is also in our philosophy to go for low energy consumption and lowest possible emissions to air and water. With this new tissue line, we expect to achieve the best tissue quality combined with lowest energy consumption," says Dario Palma y Meza Espinoza, Operational Director, Papel San Francisco.

"We are very proud to be the chosen supplier and partner for yet another expansion by Papel San Francisco. After many years of several projects together, we know that Papel San Francisco is a very demanding customer expecting continuous improvements. The company is continuously running their assets at or near world record speed and still achieving very high efficiency numbers. This is yet another opportunity for us to take another step forward in performance in a very strong and trustful relationship," says Jan Larsson, Director of Sales, North America, Tissue Mills Business Unit, Valmet.

Technical information about the delivery

The new tissue machine will have a width of 2.8 m and a design speed of 2,200 m/min. It will add 30,000 tons tissue paper per year to Papel San Francisco’s current production of toilet tissue, kitchen towels and napkins.

Valmet’s scope of delivery will comprise an Advantage DCT 100TS tissue machine. The machine will be equipped with OptiFlo headbox and cast alloy Yankee cylinder. The machine will also be featured with the well proven Advantage tissue technology including ViscoNip press, AirCap hood and WetDust dust system. Start-up and commissioning are also included in the delivery.

About the customer Papel San Francisco

Papel San Francisco started up their first tissue machine in 1980. In the past 35 years the company has grown steadily and is today operating six tissue machines with a yearly capacity of 180 000 tons of tissue products.
WHO’S DOIN’ ANYTHING? (CONTINUED)

Kruger Specialty Papers invests $40 million to build new bleached TMP plant at Trois-Rivières and to upgrade production at Wayagamack mill in QC

TROIS-RIVIERES, QC, March 26, 2019 (Press Release) - Kruger Specialty Papers reached an important milestone earlier this year when Kruger’s Trois-Rivières facility delivered its first shipment of bleached thermomechanical pulp (TMP) which enabled the Wayagamack Mill to expand its product portfolio into a wider range of brightness levels. In total, $40 million were invested to build the new bleached TMP plant at Kruger Trois-Rivières and to upgrade production at Wayagamack.

Launched in September 2017, Kruger’s SPEK project is a three-year initiative to develop new markets for the Brompton, Wayagamack and Trois-Rivières mills as part of the Company’s strategy to diversify its production and complement its product portfolio. Upon launching SPEK, Kruger also created its new Specialty Papers division which is leveraging the Company’s long-standing papermaking expertise, production facilities and customer service infrastructure to introduce innovative and sustainable high-quality products. Target markets for these new products include lightweight packaging for the food and retail industries, labelling and digital printing. This expansion of Wayagamack’s product portfolio was achieved less than six months after another important SPEK project milestone was achieved, in August 2018, when Kruger’s Brompton Mill introduced new specialty grades and quickly reached its targets in terms of production volume, product quality, sales and customer satisfaction. Similarly, preliminary reactions to the new coated paper manufactured by Wayagamack from the Trois-Rivières TMP have been excellent.

In addition, the Wayagamack and Brompton Mills could benefit from a unique advantage in the market with their access to a steady supply of cellulose filaments (CF) from Kruger Biomaterials. This eco-friendly strengthening additive, which helps make the paper lighter and stronger, is an exclusive advantage that enables Kruger to offer high-performance alternatives to manufacturers of specialty packaging and labelling products who are looking to reduce their carbon footprint. Committed to offering environmentally friendly solutions to its customers, Kruger is also proud to have earned the EcoVadis Silver level rating after its very first assessment by this international organization that evaluates corporate social responsibility (CSR).

About Kruger
Founded in 1904, Kruger Inc. is a major producer of tissue products; 100% recycled containerboard products; corrugated packaging; publication papers; specialty papers; renewable energy; cellulosic biomaterials; and wines and spirits. The Company is also a leader in paper and paperboard recycling in North America. Kruger Inc. has facilities in Québec, Ontario, British Columbia, and Newfoundland and Labrador, as well as in Tennessee, Maine, New York, Virginia and Rhode Island.

Russia’s Segezha Group drafts plan for new pulp and bioproducts mill in Krasnoyarsk, Russia

SEGEZHA, Russia, March 4, 2019 (Press Release) - Segezha Group, a pulp and paper group (part of JSFC Sistema), elaborates design documentation of a new biotechnological complex in Siberia. The project is an up-to-date high-tech manufacturing with a single (switching) pulp line with annual capacity of 0.7 mln tons of bleached softwood and/or hardwood sulfate pulp. The concept of a new plant designed at the industrial site of the Lesosibirsky LDK No. 1 operating within Segezha Group is based on using 100% wood raw material and arranging by-product operational flows for pulp production and a wide range of other bioproducts as substitutes of fossil materials and fuel. The company plans to invest about 100 bln rubles in pulp and paper production. More than 460 new workplaces are expected to be created in the region.

Construction of the biotechnological complex will take 3 years. The project start will be worked out considering time required to undergo a state examination and to obtain licenses. In 2019–2020 Segezha Group is supposed to pass a whole raw of procedures: environmental impact assessment procedure, approval of projects for a sanitary protection zone, approval of facility deployment by the Federal Agency for Fishery, State Environmental Expertise, Main State Expert Review Board, and obtaining a construction permit.

“We are moving along this path actively. This year we plan to undergo all certifications,” Mikhail Shamolin, President of Segezha Group, emphasized. “This successfully done, we’ll have a chance to say that the project is attractive enough from the economic point of view that it will not be a problem to find investors.” According to the Head of the company, today pulp and paper mills still have a negative tendency to be stereotyped as a hazardous industry that pollutes environment and has a characteristic smell. From his point of view, it can be explained with the fact that all Russian PPMs had been built back in the Soviet time, while technologies have been developed significantly ever since.
WHO’S DOIN’ ANYTHING? (CONTINUED)

“Modern pulp mills, like those built in Finland and Sweden, for example, are rather biotechnological complexes based on a principle of non-waste production. These mills are environmentally friendly,” Mikhail Shamolin stated. As an example he mentioned the Finnish mill Metsä Group* located within the city, which is safe for both the environment and people living nearby. “It’s a new step in development of global pulp and paper industry, that has already been made in Europe, and we think that such an enterprise should be in our country as well,” President of Segezha Group resumed.

One of strategic advantages of the future Russian biotechnological complex is a lower cost of raw materials and high production energy efficiency. The Krasnoyarsk Territory has an available and high-class raw material base to implement the project. The region occupies the second place by softwood stock – periodic yield of 76 mln.

A total demand for forest resources upon the project is 3.5 mln m3. Segezha Group forest base in the Krasnoyarsk Territory is 2.8 mln m3, which will allow accumulating up to 60% of its own forest resources to provide a new mill with high-class forest raw materials. The company plans to cover remaining demand with third-party woodchip bought at neighboring sawmill plants and external supplies of paper wood.

Also, the Yeniseysky district of the Krasnoyarsk Territory displays a good transport accessibility (the company already has an offer to arrange loading of the Northern Sea Route in capacity of 20,000 containers annually) and proximity to key sales markets.

Target sales markets of future products are countries of Southeast Asia, including China, where a deficit of pine tree fibers exists. For the record, the global market of bleached softwood pulp is broad and growing (CAGR consumption until 2030 is 1.7%).

Paper Excellence, Northern Pulp encouraged by poll results that support new wastewater plant at Nova Scotia mill

ABERCROMBIE, NS, Feb. 21, 2019 (Press Release) - Representatives from Northern Pulp and owner Paper Excellence Canada are encouraged by the results of a recently commissioned poll. This data was collected using MQO Researcher’s Atlantic Matters poll. The Atlantic Matters poll was conducted by telephone from January 30th to February 10, 2019 and included 400 randomly selected eligible voters from across the province.

According to the poll, more people support Northern Pulp’s plan for a new wastewater (effluent) treatment facility than oppose it:

- 36 percent support
- 21 percent neither support or oppose
- 27 percent oppose
- 16 percent don’t know

The margin of error for the total sample is ± 4.9 percentage points, 19 times out of 20.

“Our proposed new facility will keep all untreated wastewater on site and ensure only treated wastewater ever leaves Northern Pulp property,” said Jean Francois Guillot, Paper Excellence Canada Vice President, Operations East. “These changes will make us one of the most environmentally responsible mills in North America.”

“The research demonstrates that when people have the facts, they are more likely to support our proposal,” explains Guillot.

The research shows Nova Scotians believe Northern Pulp is very important to the province’s economy. When asked what the impact the closure of Northern Pulp would have on the province’s economy, 65 percent said it would either be very negative or somewhat negative.

The economic importance to Pictou was even more pronounced. 76 percent said the economic impact of Northern Pulp’s closure would be very negative or somewhat negative for Pictou County’s economy.

“Our operation keeps people working in Pictou County and throughout the province – this research shows people understand that fact,” states Guillot. “There are thousands of people who depend on Northern Pulp’s continued, uninterrupted operation.”

Northern Pulp will construct and commission the new treatment facility project, but says that it needs more time beyond the Act’s legislated January 2020 deadline. An extension to the Boat Harbour Act is required to ensure that operations continue.

“If an extension is not granted, thousands of jobs could be impacted. Once we have the approval to proceed, construction of the new treatment facility will begin immediately,” said Guillot. “We can and will complete this project. We just need a little bit more time to work through the various phases, starting with the environmental assessment which is now underway.”
Who’s Doin’ Anything? (Continued)

Northern Pulp’s wastewater treatment project was officially registered on February 7, 2019 with Nova Scotia Department of Environment. The project document is publicly available via https://novascotia.ca/nse/ea/Replacement_Effluent_Treatment_Facility_Project/

Finch Paper looks to upgrade NY facilities, improve efficiency with 84 projects

GLENS FALLS, NY, Feb. 19, 2019 (PostStar) - Finch Paper has gotten more efficient in the last few years and plans to use its profits to make many capital upgrades in 2019.

Chief Financial Officer Alex Rotolo said 2017 was a tumultuous year in the paper industry as a lot of companies went out of business. While that was not good for those employers, it caused paper prices to increase as the supply shrank.

“Because the market finally balanced, we were able to get fair prices for our paper and make a profit,” he said.

PostStar - Finch Paper looks to upgrade facilities, improve efficiency

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Arkhangelsk pulp and paper mill installs heating system of its new evaporation station in Russia

NOVODVINSK, Russia, Jan. 18, 2019 (Press Release) - “Arkhangelsk PPM”, JSC continues the second key project of 2019 - “Construction of a new evaporation station” within the framework of the forest exploitation project “Board production rebuilt”.

By the present moment all evaporators of both liquor lines, NCG recovery boilers, the whole building frame of new evaporation station (ES), boiler house and administrative building (AB) are installed. The concrete roof of the building is installed; now the mounting of the rolled roofing material is in progress at administrative building and boiler house. Wall sandwich-panels, windows and stained glasses are installed; ES hot water heating system is installed and turned on.

Installation of AB and boiler house heating system is going on. The pipelines of large diameters and external service platforms (between the evaporators) are mounted.

Pipelines are being installed inside the building, above the evaporation station and inside the boiler house, as well as the assembly of the cooling tower for recycled water supply.

Installation of tank farm and the laying of intershops communications is in progress.

As previously reported, the overall test of the evaporation station will start in June of this year.

The evaporation capacity of the Valmet Technologies main equipment is 600 tons/hour.

The new evaporation station should evaporate waste red and black liquors, taking into account their buildup at the maximum capacity of the semi-chemical pulp and sulphate pulp cooking shops of board production plant to provide the raw materials for two cardboard machines after their rebuilt.

The unit for the combustion of gases generated during the production process will almost completely eliminate emissions from the new evaporation station and the semi-chemical pulp cooking plant.

The environment will benefit the most from this.

The total cost of the main equipment and construction and installation works of this investment project of “Arkhangelsk Pulp and Paper Mill” amounts to 6.5 billion RUB.

Sweden’s CleanFlow to supply green liquor filtration technology for Ence’s kraft pulp mill in Pontevedra, Spain

FORSHAGA, Sweden, Feb. 15, 2019 (Press Release) - The Swedish innovation company CleanFlow AB has developed a unique method for cleansing green liquor. Good for the economy, environment and quality. Now, the company has received its fourth big order. This summer, the company’s system will be delivered to a sulphate pulp mill in Spain.

“We are very happy that our technology is continuously being implemented around the world”, says CEO Lennart Källén.

The first mill in the world to use CleanFlow’s green liquor filtration was Swedish. Thereafter, a pulp mill in Japan followed, and then one in South Africa. And now it is Spain’s turn. The mill in Pontevedra in Western Spain belongs to the forest industry group Ence Energía y Cellulosa S.A., which produces more than 450 000 tonnes of eucalyptus pulp annually.

Kidney of the pulp mill

CleanFlow’s cleansing method is based on microfiltration. This process has proven itself to be very successful. “The filter is like the pulp mill’s kidney”, Lennart Källén explains.

“The liquor becomes completely free of foreign particles, which allows the production to increase, and the energy and chemical consumption to decrease. A medium-sized mill can save up to SEK five million in chemicals every year.”

Contributes to a fossil-free society
WHO’S DOIN’ ANYTHING? (CONTINUED)

CleanFlow is a member of the Paper Province cluster that works for sustainable development, with a focus on forest bioeconomy. Maria Hollander, CEO of Paper Province, is happy that yet another pulp mill has discovered CleanFlow’s technology.

“It contributes towards making the mills even more sustainable. They save energy, are able to use fewer chemicals during the process, and it also allows for an increase in the production of paper pulp. Resource efficiency is the key to becoming a fossil-free society”, she says.

Delivered fully assembled
The new system is fully manufactured, complete with instrumentation and electrical equipment, in workshops in Forshaga in Sweden. After a test run, it will be delivered to the mill in May.

“The capacity has been dimensioned to suit the Spanish mill. Because it has been built in modules, it can be expanded and adapted for future increases in production”, says Lennart Källén.

The deal was made together with CleanFlow’s partner Sotgar Systems, and the contract sum amounts to SEK 15 million.

ABOUT CLEANFLOW
CleanFlow was established in 2009 and developed a new cleansing technology for the pulp industry. The patented cleansing method was based on microfiltration and was developed in collaboration with the university KTH Royal Institute of Technology.

A pilot plant was started at Munksjö Aspa Bruk AB in 2010, and the process development continued there until 2013. After positive runs at the pilot plant, Munksjö Aspa Bruk AB became the first mill in the world to have a commercial CleanFlow system in 2013.

This was followed by another delivery to Japan in 2016, as well as a system delivery to South Africa in 2017.

The benefits of CleanFlow’s technology can be summarised as follows

▪ Particle-free processed liquor
▪ Continuous process
▪ Very cost-effective with capacity increases
▪ Low operation costs
▪ Easy to adapt to existing systems
▪ Large capacity in a small space
▪ Modular concept

CleanFlow AB is a privately owned limited company with its headquarters in Forshaga in Sweden, where the founders and Girincubator AB hold the shares.

ABOUT PAPER PROVINCE
Paper Province is a world-leading cluster within the forest based bioeconomy in Sweden. On behalf of our member companies we support innovation and development and cultivate an international network within the bioeconomic society to promote an increased exchange of knowledge and business.
### 2019 ISA Pulp & Paper Industry Division Calendar

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### Conferences
- ISA Pulp & Paper Div.
- US Tax Day / Election Day

### Holidays
- New Year’s Day
- Independence Day
- Labor Day
- Christmas
- Thanksgiving

### Special Days
- Mother’s Day
- Father’s Day
- Easter
- Mom’s Day
- Dad’s Day
- Patty’s Day
- Valentine’s Day
- SC Tax Day / Election Day
- SC Memorial Day
- SC Independence Day
- SC Labor Day
- SC Christmas
- SC Thanksgiving
DIRECTOR’S MESSAGE  by RONALDO NEVES RIBEIRO, MAY 20, 2019

Asian group Royal Golden Eagle (RGE) announced the construction of a new pulp mill in the countryside of São Paulo (Brazil). A construction site set up in an area of almost 1.2 million square meters, in Lençóis Paulista (SP). Construction work on an Asian pulp and paper mill is expected to employ around 7,000 workers by the end of 2021, a deadline set by the company for completion of the work.

Seminar on automation and maintenance - theme: industry 4.0

The ABTCP (Brazilian Pulp and Paper Technical Association) promoted the 06th Automation and Maintenance Seminar on 08/05/2019 at Oji Papéis Especiais in Piracicaba - SP (Brazil), whose theme was Industry 4.0 in the Cellulose and paper. The objective of the event was to address spa facilities that are relevant to the participants of the Automation Commission (manufacturers, suppliers, academics, consultants and professionals), many of them addressed in the virtual meetings of the commission, but in person, thus generating technical discussions and information exchange. The event was moderated by the ISA PUPID Membership Chair, Mr. André Luiz Kakehasi.

In 2019, Klabin will invest R $ 2 billion in expansion

By 2019, Klabin will allocate about R $ 2 billion to its new growth cycle, which will consume a total of R $ 9.1 billion in investments by 2023. Disbursements for the Puma 2 project, approved by the board of directors in April, start this month. With the expansion, the company will add at least 920 thousand tons per year of kraftliner paper to its capacity, integrated into pulp production.

Brazilian Congress COBISA

The Brazilian Congress of Instrumentation and Automation System (COBISA) took place this week at the Center and Conventions of the State University of Campinas (UNICAMP), as an accomplishment of the University Center of FEI and State University of Campinas with the support of the International Society of Automation ISA) - Campinas Section.

The event brought together the scientific and industrial communities enabling the exchange of information among the various professionals in the area of Instrumentation, Process Control and Automation Systems. He promoted lectures and keynotes for the students, teachers, researchers and professionals. In this congress the PUPID Director Ronaldo Ribeiro participated as a guest and was the author of one of the papers presented.

LatamPAPER

LatamPAPER, the Latin America papermaker conference will take place in São Paulo Brazil from May 29, to 31. It is the meeting point between suppliers of new technologies and Latin American Paper and board manufacturers and converters.

Source: LatamPaper.com

Tissue World Milan 2019

Tissue World 2019 – the world’s largest tissue industry exhibition and conference – played host to over 3,200 trade professionals from 91 countries. Held at the Fieramilano city, Milan, more than 170 companies showcased on the exhibition floor, with the highest number of attendees coming from Italy, Germany, USA, Turkey, UK, Spain, Serbia, and Sweden. Held at Fieramilano city, Milan, from 25-27 March, the world’s largest dedicated tissue industry showcasing the latest technical and innovative developments.
A three-day conference – ‘Smart and Sustainable – Strategies to Stay Sharp as a New Decade Dawns’ – heard the latest from 60 expert speakers, including the keynote address entitled ‘Creating today a sustainable business for tomorrow’, delivered by Essity president and chief executive Magnus Groth.

About Tissue World: Built on 26 years of history, Tissue World covers the entire tissue value chain, from raw material suppliers, finished product manufacturers, jumbo roll suppliers, converters, traders to paper machinery makers, packaging equipment suppliers and many more. Tissue World trade shows and conferences currently take place across 5 cities: Milan, São Paulo, Miami, Bangkok and Istanbul. Tissue World also publishes Tissue World magazine, the independent news provider for the global tissue business.

Source: [www.tissueworld.com](http://www.tissueworld.com)

**Pulpaper**

Simon Matthis published in May, 16 2019 at [www.pulpapernews.com](http://www.pulpapernews.com). PulPaper is the leading international event in the forest industry’s calendar, and it will be held at Messukeskus in Helsinki on 27-29 April 2021. A top chemistry and bio-industry event, ChemBio Finland, as well as a top chemical seminar, Helsinki Chemicals Forum, will take place alongside PulPaper. These simultaneous events at Messukeskus exhibition centre will bring benefits of synergy to visitors and companies alike.

PulPaper will have a current, high-level conference programme, which will be carried out together with the major players of the sector. The event will also include an exhibition, free information briefings and evening entertainment.

Previous PulPaper events were arranged in 2018 and 2014. Last time PulPaper was a part of a cross-sectoral forest and packaging industry event that had more than 9,200 visitors from over 50 countries around the world. The upcoming PulPaper 2021 will bring together a broader range of companies and experts from different parts of the process industry by cooperating with the chemical and biotechnology industries.

Source: [www.pulpapernews.com](http://www.pulpapernews.com)

**AFCP 4° Pulp and paper journey**

Organized by AFCP Asociación de Fabricantes de Celulosa y Papel (Pulp and Paper Manufacturers Association) and participation of the CYTED-NANOCELIA Network, the event this event happened in the city of Buenos Aires Argentina on May 16 and 17, 2019. The Association brings together the main producers of Pulp, Paper, Cardboard and Cardboard from Argentina.

Source: [wordpress.afcparg.org.ar](http://wordpress.afcparg.org.ar)

**Final considerations**

The Pulp and Paper sector is growing in the Southern Hemisphere and ISA has contributed greatly to the preparation of new automation and process control professionals and to the publication of important norms to regulate the growth of new technologies. Associate with the Institution and know in detail all the technological innovations applied to the various industrial branches.
**2019 PUPID SCHOLARSHIP WINNER**

The ISA Pulp & Paper Industry Division is pleased to award the 2019 $2000 PUPID Scholarship to Anthony Weise from Miami University in Oxford Ohio. As a member of the University’s Honors Program and with a GPA of 3.65, Anthony is a junior pursuing a Bachelor of Science in Chemical Engineering with a minor in Paper Engineering and Process Control.

Anthony currently serves as Regional Liaison for the Executive Student Committee of the American Institute of Chemical Engineers (AIChE), owning the task of corresponding with surrounding university’s Student Chapters of AIChE and promoting their growth and development. Anthony also is serving as Recruitment Chair for Miami’s own Student Chapter as well as for Scuba Diving/Snorkel Club of Miami University. Through his efforts, the Scuba Diving/Snorkel Club of Miami University has obtained a record high number of members.

Anthony’s Father, Robert Weise, and Mother, Rita Weise, both work at the JACK Cleveland Casino. Anthony graduated from Fairview High School in Fairview Park, Ohio; located just west of Cleveland, Ohio. His younger brother, Brandon Weise, is a Senior at Fairview, and his youngest brother, Cody Weise, is in Middle School.

In the past, Anthony had served and worked for several positions including both Coordinator of Recognition and Treasurer of the Nation Residence Hall Honorary as well as the President of the Community Leadership Team of Morris Hall. Anthony has worked at Miami University as a Residential Assistance, supervising and providing guidance to residents, as well as a Student Researcher, exploring the capabilities of MOSCED in viability as a program capable of chemical compound properties prediction based on Abraham parameters.

Providing exceptional work and willingness to grow Anthony has been interning as a Process Control Engineering with the Kingsport Mill of Domtar and has been awarded the Domtar Award. Having been a student member of both the International Society of Automation (ISA) Pulp and Paper Industry Division (PUPID) and the Technical Association of the Pulp and Paper Industry (TAPPI) and showing incredible interest in the field and optimism of growth, he has also been awarded the TAPPI Process Control Scholarship.

Anthony hopes to continue this positive momentum this summer, interning again at the Domtar Kingsport Mill, and strives to achieve a bright career in the process control field in the industry of pulp and paper.

With the limited time in between his studies, work, and leadership positions Anthony enjoys several hobbies. His favorite hobby is rock wall climbing, but it would be no surprise if you saw him volunteering at AAF Animal Shelter, hiking, playing board games, or even sky diving. He wishes to SCUBA Dive with his club as well as host a Dungeons and Dragons campaign with his friends before he graduates.
TECHNICAL PAPER

Get Control of Your Wireless and Avoid a Conundrum

H. PIERCE RUMPH, P.E.
JACKSONVILLE, FL

Previously presented at the Gulf Coast Section TAPPI Conference October 2011

Important Deadlines

Abstracts 1 March
Acceptance 5 April
Draft Papers/Presentations August 1
Reviewer's Comments to Authors September 1
Final Papers/Presentations October 1
Speaker Registration October 1

November 4 – 6
Westin Houston, Memorial City

SUBMIT ABSTRACT
**Links to Related Websites**

- **ISA Pulp & Paper Website**

- **ISA Pulp & Paper Technical Discussion Forum**

- **ISA Technical Conference Session Schedule**

- **Pulp & Paper Research Institute of Canada**
  [http://www.paprican.ca/](http://www.paprican.ca/)
  [TAPPI](http://www.tappi.org/)
  [PIMA](http://www.pimaweb.com/)
  **American Forest and Paper Association**

- **National Society of Professional Engineers**

- **Swedish Royal Institute of Technology**
  [http://www.prst.kth.se](http://www.prst.kth.se)

- **Helsinki University of Technology**

- **Technical Association of the Australian and New Zealand Pulp &amp; Paper Industry (APPITA)**

- **Australian Pulp & Paper Institute**

- **ISO Standards Technical Committee List**

- **ISA Standards Committees Listserv**

**Quickies**

**ISA Pulp & Paper Technical Discussion Forum**

Anybody (not necessarily an ISA or PUPID member) can subscribe to the PUPID Pulp & Paper Technical Discussion Forum. To subscribe, go to the PUPID homepage at [http://www.isa.org/pupid/](http://www.isa.org/pupid/) , select “Link to the PUPID email LISTSERV” in the pick box, click “Join”, and enter you email address and a password.

**ISA Member Benefits**

ISA members receive benefits such as the Latest Technical Information, Professional Development Resources, Networking Opportunities, Special Bonus for Student Members, Insurance Program for Independent Contractors and Business Owners, and other personal privileges. Go to [http://www.isa.org/membership/membership-benefits/](http://www.isa.org/membership/membership-benefits/) to see specific benefits.

**ISA PUPID Calendar**

Get a quick overview of ISA PUPID events by going to the Calendar at: [https://www.isa.org/division/pupid/events/](https://www.isa.org/division/pupid/events/)
WORLD CORNERS

CANADA CORNER
Nothing from anyone there this time!

CENTRAL & SOUTH AMERICAN CORNER

FAR EAST CORNER
Nothing from anyone there this time!

EUROPEAN CORNER
Nothing from anyone there this time!

FROM THE LAND OF THE MIDNIGHT SUN
Nothing from anyone there this time!

LETTERS TO THE EDITOR

• Send your comments on this newsletter to me at brad.carlberg@bsc-engineering.com or post a message to the ISA PUPID Technical Discussion Forum List Serve & “get something started”!

ISA CONFERENCES / SYMPOSIA

MAY 06  2019 ISA Analysis Division Symposium (AD)
AUG 07  ISA Energy and Water Automation Conference
NOV 04  2019 ISA Process Industry Event (PCS)
CCST Answer

The correct answer is B, “DeviceNet.” Foundation Fieldbus (FFB), Actuator-Sensor Interface (AS-i), and Highway-Addressable Remote Transducer (HART) Instrument Bus networks all operate over a single pair of wires. The power for the transmitter and the communication signal are both carried over that single pair of wires.

DeviceNet requires a separate pair of wires for power and signal, with an additional shield/ground wire. DeviceNet, then, typically requires five conductors (two pairs and a shield/ground).


CAE Answer

The correct answer is C, “to maintain the volts/hertz ratio.” The speed of the motor is controlled by changing the frequency applied to the motor:

\[ \text{RPM} = \frac{\text{Frequency} \times 120}{\# \text{ of poles in the motor}} \]

Varying the frequency affects both the motor speed and the strength of the magnetic field. When the frequency is lowered (slower motor speed), the magnetic field increases, and excessive heat is generated. When the frequency is increased (higher motor speed), the magnetic field decreases, and lower torque is produced.

In order to keep the magnetic flux constant, the V/Hz ratio must remain constant. This keeps torque production stable, regardless of frequency. As frequency changes, we want to maintain a constant flux density to maintain the torque developed by the motor.


ANSWERS TO THE TUNING TIP

First calculate the force exerted by the process fluid (Pp): 25 psig * area of plug

\[ F_p = \frac{25 \times \pi \times 2.0^2}{4} = 78.54 \text{ lbf} \]

Find seating force for plug for a class II shutoff:

\[ F_s = \pi \times D \times 20 \text{ lbf/inch} = \pi \times 2.0 \times 20 = 125.67 \text{ lbf} \]

To unseat the valve and start movement of the stem toward open, we add the stem friction force to the spring force and subtract the process fluid force pushing upward:

\[ F_{D(0)} = F_s + F_f - F_p = 500 + 120 - 78.54 = 541.46 \text{ lbf} \]

Find the LRV of the I/P pressure:

\[ P = \frac{F_{D(0)}}{A} = \frac{541.46}{78.5} = 6.9 \text{ psi} \]

The force of the spring compressed when the valve is fully open:

\[ F_x = F_K \times (\text{inches of travel}) \]

\[ F_x = 500 \text{ lbf} \times 1.5 \text{ inches} = 750 \text{ lbf} \]

To open the valve fully, we add the stem friction force to the spring force pushing down:

Note: The valve plug is already unseated, so there will no longer be a force helping the spring to open, due to the fact that there is practically no differential pressure being exerted upon the plug.

\[ F_{D(1)} = F_x + F_f = 750 + 120 = 870 \text{ lbf} \]

Find the URV of the I/P pressure:

\[ P = \frac{F}{A} = \frac{870}{78.5} = 11.1 \text{ psi} \]

The I/P transducer will be calibrated: 6.9 to 11.1 psig
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Standards & Practices
Vacant

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