

PtSA News

Newsletter of the Production Technologies Association of South Africa

Issue 25 - April/May 2023



Hosted by
PtSA Production Technologies Association of South Africa

ISTMA
2023
16TH WORLD CONFERENCE

ALL AFRICA EXPO

SPECIAL TOOLING & MACHINING
WORLD CONFERENCE & EXHIBITION
6 - 10 NOVEMBER 2023
CAPE TOWN INTERNATIONAL CONVENTION CENTRE - SOUTH AFRICA

The WORLD is coming to CAPE TOWN in November!

PtSA and ISTMA are hosting the ALL AFRICA EXPO ISTMA 2023 event in CAPE TOWN in November 2023

This will be a unique opportunity for the South African and African tooling industry to join a world event.

This will also be an opportunity for South African and African companies to showcase the capabilities of Africa.



Join us in Cape Town in November



ISTMA WORLD CONFERENCE

Message from the ISTMA World President - Bob Williamson



We are very pleased to announce a powerful line-up of internationally renowned speakers for the 16th ISTMA World Conference taking place in Cape Town in November. These experts will talk about topics such as sustainable development in the tooling and special machining industry, technical advances in tooling manufacture, and skills development for the tooling industry, and these presentations will provide a clear roadmap for the way forward for the tooling and special machining industry over the next few years.

By attending the Conference, delegates will not only be able to hear these expert speakers but will also be able to interact with the speakers during the scheduled panel discussions, during the tea and lunch breaks, and during the planned social events. The 16th ISTMA World Conference will coincide with the inaugural All Africa Expo and the Invest in Africa Indaba, and the event will collectively be branded as All Africa Expo ISTMA 2023. The event will be jointly hosted by PtSA and ISTMA, and will not only create invaluable exposure and networking opportunities for the local South African industry, but will also be an opportunity for the international industry to network with each other and with the African continent.

I want to take this opportunity to congratulate Tapiwa Samanga and his PtSA team for the outstanding job they are doing with the planning for this prestigious event, and to wish them all the best over the next few months with the finalisation of these plans.

We look forward to a world class event hosted in a world class city.

Message from Tapiwa Samanga - CEO of PtSA

In November 2023 the global tooling family is coming to Cape Town. For the tooling world this is as good as it gets and is a unique opportunity for the South African and African tooling manufacturing industry to rub shoulders with the best in the world. The All Africa Expo and Invest in Africa Indaba will be unique platforms for the South African and African industry to showcase their manufacturing capabilities and investing potential, and to showcase Africa's spirit of invention.

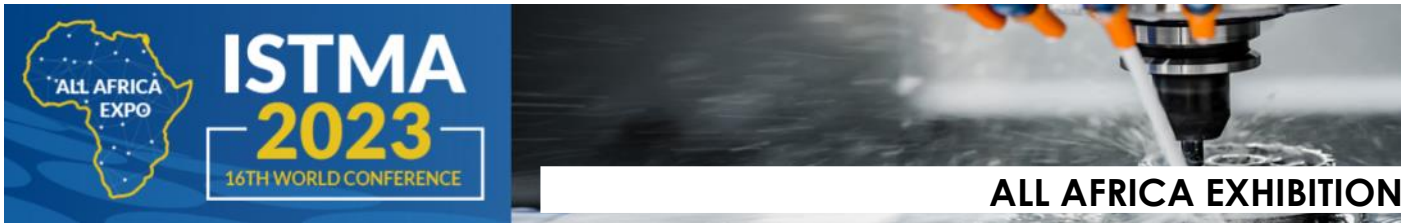
The networking opportunities that this event is creating are unprecedented, this is like hosting the TDM World Cup on our shores. With about 40% of the available exhibition spaces already reserved, we are confident that the Expo will be fully subscribed by October, so we encourage the local and African tooling and manufacturing industry to reserve your space before it is too late.

The ISTMA conference and the Invest in Africa Indaba has lined up top international speakers who have seen it all. The Invest in Africa Indaba, to be chaired by **the dtic** Chief Director Ms Thandi Phele line-up includes a former minister of Trade and Industry (SA) who continues to work as a leading consultant on the continent as well as experts from Kenya, Uganda and Ghana. **Closer to the day, one on one business meetings will be scheduled.**

In addition to these planned activities for the All Africa Expo ISTMA 2023 event, a number of factory visits have been scheduled, which will give delegates the opportunity to see manufacturing and skills development excellence in action in the real world. **We cannot wait to host you in Cape Town in November. Halala!**



- Tapiwa (tapiwas@ptsa.co.za)



Meet Michael Kirbach, a keynote Speaker

Michael Kirbach - Director: DMG MORI Aerospace / Die & Mold Excellence Center, DECKEL Maho Pfronten

Michael Kirbach is a graduate engineer specialising in precision engineering with a focus on production and automation. He also has an MBA in International Sales and Strategic Marketing. Michael has worked in the aviation industry for more than 30 years, holding various senior positions in engineering, sales, marketing and material management.

He has been Head of the DMG MORI Aerospace Excellence Center since 2012 and in 2020, took on the additional responsibility of Die & Mould.



More about the All Africa Expo

The All Africa Expo will be the first platform to boast Africa's spirit of invention and pockets of manufacturing excellence and will offer unprecedented global networking opportunities to the continent.

The All Africa Expo will also offer suppliers an excellent opportunity to gain exposure to African and global tooling markets in a cost-effective way by participating as sponsors and/or exhibitors.

Exhibition spaces still available

Visit www.sbs.co.za/istma2023 to book your space now

The All Africa Exhibition focuses on five key areas essential to the growth of manufacturing in Africa.

African Country Pavilions

Showcasing what African countries can offer manufacturing companies in terms of market potential, government incentives and logistical support.

African Manufacturing Companies

Carefully selected manufacturers, demonstrating the variety of highly innovative products produced in Africa with high quality standard and technical sophistication.

African Tooling Systems Manufacturers

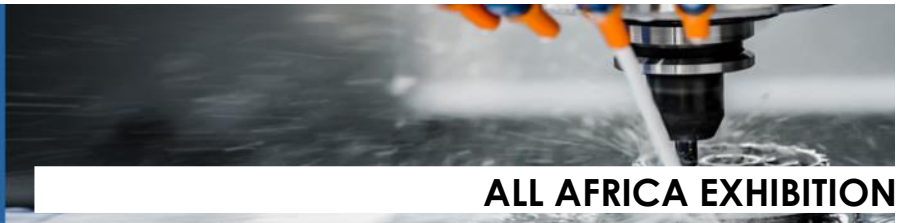
Exhibiting the support capability of the South African and African continental tooling industry to design and manufacturer moulds, dies and advanced assembly systems.

Machine Tool Suppliers

Major international machine manufactures providing cutting edge technologies with fully established support networks.

Importers of Tooling, Moulds and Dies

Strategic international partners supporting local industry with well-developed and supported supply chains. Exhibition space is available in a variety of sizes to suit all requirements, from 9 square meters to 84 square meters. Larger spaces can be obtained by combining stands.



ALL AFRICA EXHIBITION

Why Exhibit at the All Africa Expo

The All Africa Expo will coincide with the 16th ISTMA World Conference and the event will be collectively branded as the All Africa Expo ISTMA 2023.

The All Africa Expo will be an exhibition that covers the full spectrum of tooling and manufacturing activities in South Africa and the African continent, and will be an excellent opportunity for exhibitors to gain exposure for their products and services to South African, African and global markets.

The event is being widely advertised and promoted locally and internationally, and visitors are expected from the 22 ISTMA member countries from Europe, Asia and the Americas, as well as from a number of African countries and a large number of South African manufacturing companies and agencies.

Those that are expected to attend include:

- Business owners
- Business managers
- Production managers
- Procurement managers
- Design engineers
- Technical training institutions
- R&D personnel
- Technical staff



Opportunities still exist to reserve exhibition stands in the African Tooling Systems Manufacturers area, the Machine Tool Suppliers area, the African Manufacturing Companies area, as well as the Importers area of the Expo.

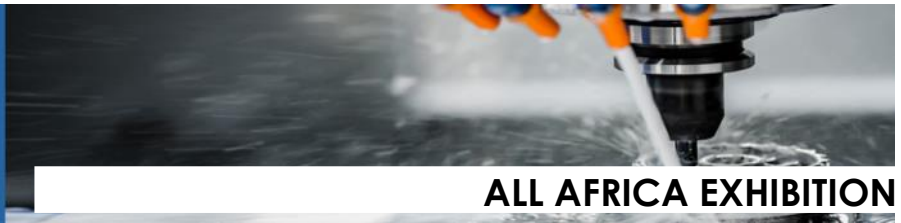


Prior to the event, exhibitors are being promoted via the official website

www.sbs.co.za/istma2023, as well as via the bi-monthly PtSA Newsletter and in the official All Africa ISTMA 2023 booklet.

The event will create invaluable exposure and networking opportunities for exhibitors.

Please visit the official website www.sbs.co.za/istma2023 to reserve your exhibition stand



ALL AFRICA EXHIBITION

Meet some of the Exhibitors

Conver-Tek

A leader in the field of polymer engineering and mould production for over 40 years, consistently developing both innovation and cost effective products.



Conver-Tek has been in the technology of injection moulding and precision mould making since 1975. The dynamic team at Conver-Tek has won international design and product awards for polymer products and world firsts in new polymer technology opportunities. They have a globally respected reputation for delivering innovative designs and quality products

Dramco Tooling



Dramco Tooling manufactures simple and progressive moulds and press tools, as well as thermo forming moulds.

They specialise in the design and manufacture of basic and progression tooling for metal components as well as injection moulds for plastic components. They also undertake the manufacture of metal pressings and injection moulded products.

Guhring Cutting Tools

Guhring is a world class manufacturer of round shank cutting tools for the metalworking industry, and is also a provider of top-quality coating, reconditioning and tool management services. More than a century of expertise in cutting tool manufacturing, combined with powerful R&D resources, places Guhring at the forefront of technical innovations in cutting tools.



QP Global

QP Global is a family owned project management company established in Portugal. Using their experience in the automotive and engineering fields, they have created synergies between international investors and European companies.

QP Global excels in the procurement of wholesale equipment and tooling for the automotive, aeronautical and medical industries and are committed to simplifying the task of tooling and equipment procurement. They take care of the research, development, production and delivery of plastic moulds and parts. They offer step-by-step services to their customers from initial concept to finished product.

Wagner Systems

Wagner Systems is an ISO 9001:2015 certified contract manufacturer in the precision engineering field, specialising in the production of fine mechanics components and assemblies.



WAGNER SYSTEMS
Producers of Fine Mechanics Components & Assemblies

Founded in 1965 and located in Cape Town, they provide specialist precision engineering services to customers in various industries worldwide, including, amongst others, enterprises producing medical devices (dental implants, audiology, cardiovascular, ophthalmology, and endoscopy), laboratory equipment, aerospace, radioastronomy, the medical industry, and industry in general – even music instrument and model car builders.



PtSA is reinforcing its cooperation and partnerships with national service providers to the South African Tool, Die and Mouldmaking Industry providing additional and valuable opportunities for visibility and interaction with its members and affiliated companies.

The **PtSA NATIONAL PARTNERS** programme is dedicated to companies having a national footprint with representation in multiple provinces. Typical potential national partners would be suppliers of

materials, software, components, machine tools and financial or other specialized services.

PtSA offers its **NATIONAL PARTNERS** a package including presence and visibility during all the PtSA activities: meetings, seminars, workshops, website, official publications and material distributed to its members.

For further information contact : **Hettie Foord** (012) 760 0300 or hettief@PtSA.co.za

Jendamark claims another top title at Africa Tech Week Awards



WINNING TECH: Jendamark Automation's innovations director, Yanesh Naidoo, celebrates the company's win in the technology innovation of the year category at the Africa Tech Week Awards in Cape Town.

Jendamark Automation added another feather to its future forward hat, after claiming the title of technology innovation of the year for its Odin Manufacturing software at the Africa Tech Week Awards in Cape Town recently.

The award is the second for Jendamark, after it was named technology company of the year at the 2022 ceremony. Innovations director Yanesh Naidoo said the award, judged by an independent panel, served as confirmation that the manufacturing technology developed by Jendamark met a real need for small to medium enterprises.

"Last year, the award was about our company, this time it's for our products, so it's a huge win for us," Naidoo said. For SA and Africa to prosper, he said, a focus on building a strong manufacturing-based economy was required.

"That's why we developed Odin Manufacturing — to help digitise and improve production efficiencies, and create opportunities for the huge human capital we have in our country and the continent."

Jendamark's Odin Education division, which creates the tech infrastructure to bridge the digital divide in underprivileged schools, was also named a finalist in the ed-tech category. Odin Manufacturing division works to integrate 4IR technologies by developing digitisation solutions for any production facility, while Odin Education is aimed at reimagining education. It has subsequently developed an ed-tech ecosystem which is

being deployed in underprivileged schools in both rural and urban communities across Southern Africa.

"Though they may seem unconnected, we created Odin Education to help transform the education sector, so that young South Africans can be ready to take on this manufacturing challenge amid the rapidly accelerating pace of Industry 4.0 technologies," Naidoo said. Jendamark Automation meanwhile designs and builds world-class assembly lines and special-purpose machines for the global automotive manufacturing sector specialising in powertrain, catalytic converter, and electric vehicle power assembly.

[Jendamark claims another top title at Africa Tech Week Awards \(heraldlive.co.za\)](https://heraldlive.co.za)

Guhring South Africa invests in regrinding and manufacturing plant

Eastern Cape PtSA industry member Guhring South Africa recently invested in a new coating plant capable of doing multiple coatings at once to improve efficiency and productivity.

Jonathan Green, Technical Sales Representative at Guhring, elaborated that the company offers a complete reconditioning service for carbide end mills, including refurbishing of used tools and addition of corner radius.

"In addition to standard helix end mill designs, our reconditioning division can also recondition Guhring variable flute and variable helix carbide end mills. We also recondition Carbide drills, taps, reamers, and gear hob cutters etc. to help customers achieve maximum cost savings," Jonathan continued.



62% cost savings by regrinding your tools

In its pledge in helping to save the environment, the company promotes tool reconditioning.

"On the one hand, we owe it to the environment to use resources sparingly, because global stocks of raw material for carbide tools (cobalt and tungsten) are limited. On the other hand, reprocessing also makes sense in terms of economic efficiency. Investing in a new tool every time you notice wear is expensive - and unnecessary for many solid carbide tools," he explained. "Because the quality of the tool core and the cutting material has not changed only the cutting edges need to be sharpened. The cost of such regrinding represents only a fraction of the purchase price for a new tool," Jonathan added.

Same quality – four times the service life

When it comes to the quality of the final product, there is no difference between the first regrind and the third regrind at Guhring. Jonathan emphasised that you would receive a "new" tool with which you can continue working with the same cutting values and achieve identical results. "And when your tool is finally worn out, we will even buy back the carbide from you - to recycle it," he concluded.

The Electric Vehicle Transition: Is South Africa ready?

Lots of speculation and discussions are currently taking place within the Electric Vehicle (EV) industry and maybe it is time we openly talk about this burning issue, as part of the TDM and Special Machining Industries in South Africa...

In a publication "Ridgetimes.co.za" an article was published recently about research finding that "TVET colleges lack 'electric vehicle competency frameworks, which lecturers can use to teach the students'. As EVs grow in popularity globally, they made less than 1% of vehicles purchased in South Africa in 2022.

If the country is looking to match its target of net zero carbon emissions by 2050, that percentage must rise – and quickly. With the year-to-year growth of EV interest in South Africa, more fully equipped EVs are becoming available. It is certain that the influx of EVs into the country will only grow this year, as it has done exponentially in previous years. While a total of 1400 electric vehicles were purchased in 2022, this was more than previous years combined. At this rate, South Africa's automotive landscape will soon require more sustainable resources to continue EV growth, and equally as important, well-equipped and trained EV automobile engineers and technicians. This means we need an updated automotive training curricula led by knowledgeable and qualified lecturers and facilitators in tertiary education. "I would say that on a scale of 1 to 10, I would say that we are at 2," – Surveyed Technical and Vocational Education and Training (TVET) Lecturer. <https://ridgetimes.co.za>

Bob Williamson, President of ISTMA World, Tapiwa Samanga, CEO of PtSA and a representative team from ISTMA World, recently attended a series of meetings in Washington DC to discuss greater integration of Sector Associations of the American Continent.



The attendees included individuals from member Associations from Mexico (AMMMT), Brazil (ABINFER - Associação Brasileira da Indústria de Ferramentais - Brazilian Tooling Industry Association) and Canada (CTMA) plus invited guests from the USA: National Association of Manufacturers - NAM, AMT - The Association For Manufacturing Technology and North American Die Casting Association.

"We talked about the importance of networking in the sector worldwide, the great value of exchanging good practices, business intelligence and strategies to overcome challenges such as talent shortages, limited and expensive financing as well as the effective integration of technology with automation and innovation," Bob explained.

"Events that can be of great relevance and transcendence such as the 'Tooling Forum' aimed at politicians and public servants to understand the sector and how to support it. As well as technological events that approach production and sustainability in a more objective way," he added.

The president of the AMMMT Juan Benavente, Manuel Oliveira, ISTMA World Secretary, as well as the president of ISTMA Americas Eduardo Medrano, participated in the sessions.

New Technologies support increased sustainability

During a webinar on 4 May, hosted by ISTMA Europe, 'Technology drives sustainability' sought to alert companies in the mouldmaking and plastics industries to the role that technologies can play in the development of more sustainable manufacturing methods and products.

The initiative, is part of a series of actions that ISTMA intends to carry out throughout this year, emphasizing and stimulating good practices in the sustainability area.

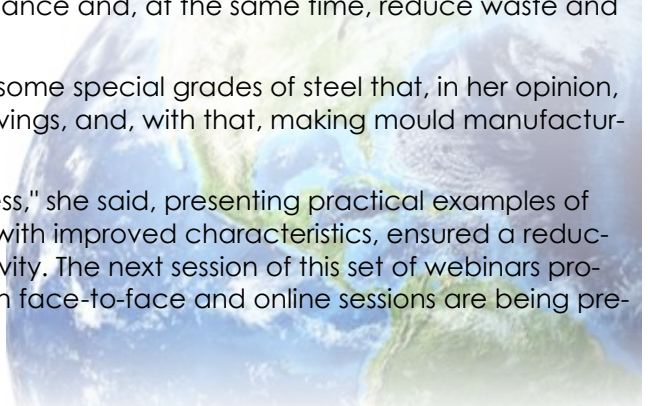
Markus Heseding, President of ISTMA Europe, pointed out that sustainability is one of the biggest challenges currently facing the industry, recalling the urgency of reducing pollutant emissions and carbon footprint in value chains. He also drew attention to the European legislation that is being prepared and that will include a set of guidelines and standards that, in terms of environmental protection, will have a huge impact on the industry. "It is essential that we share ideas and information to find, together, good practices to successfully overcome this enormous challenge", he emphasized.

Guest speaker **Steffen Rapp**, from EDEGS, shared the example of his company that, by investing in new techniques, managed to reduce the amount of steel in the moulds it manufactures for silicone injection (RSI). He highlighted the importance of mouldmakers positioning themselves at the beginning of the value chain, working together with their customers, to introduce, right at the moment of mould design and planning, techniques and methods that increase their performance and, at the same time, reduce waste and production steps, with benefits for the environment.

Yolanda Rubio, from steel company Rovalma, presented some special grades of steel that, in her opinion, ensure improvements in production cycles and energy savings, and, with that, making mould manufacturing more environmentally friendly.

"The choice of steel makes a lot of difference in the process," she said, presenting practical examples of situations where the exchange of a 'normal' steel for one with improved characteristics, ensured a reduction of cycle time in the order of 20 %; increasing productivity. The next session of this set of webinars promoted by ISTMA will take place later this quarter, and both face-to-face and online sessions are being prepared.

(To read the full article, please visit <https://www.istma.org>)



PtSA Western Cape Networking event

PtSA Western Cape Region hosted a networking event at the end of last month. We would like to thank WD Hearn Machine Tools for sponsoring the evening.

Malte Scherner (AAT Composites) who were elected as a PtSA Board Member, and the new PtSA Western Cape Chair of the Regional Executive Committee welcomed the guests and introduced the speakers during the evening.

Bevan Davis delivered a presentation on behalf of Bilhen & Davis Energy (BD Energy), which was founded by Dean Henning, André van Biljon and Bevan a few years ago.

Given the unstable electricity situation in South Africa, BD Energy could get rid of frustration, offer clients power stability, and return on investment. "We aim to develop a solar brand that is renowned for quality products, designs and installations. The company is focused on delivering the best custom renewable energy solutions for the domestic and commercial markets. We are a company that solves problems for our clients, adapting to all needs," Bevan added.

The company offers the following back-up solutions:

1. Battery Inverter solutions with PV (photovoltaic - materials and devices convert sunlight into electrical energy)

Advantages:

- PV provides a way to charge the battery for evening backup
- Daytime cost savings from the grid
- Less batteries are required if daytime loads are higher than evening loads
- PV has a very quick payback period

Disadvantage:

- Large capital layout

2. Battery Inverter solution

Advantages:

- Cheap to operate (+-R1.3 per Kw, vs +R9.00 per Kw for peaks)
- Low maintenance is required
- A small area is required
- Long service life
- Scalable

Disadvantages:

- Large capital layout on installation
- A highly-specialised installation team is needed. BD Energy can assist.

3. Diesel Generators / Gas Generators

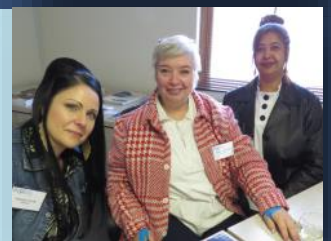
Advantages:

- Quick to install
- A small area is required
- Cheaper capital layout initially

Disadvantages:

- Expensive to operate (most operating at a cost of +-R6 per Kw)
- Most generators are made for standby backup, and not constant running as experienced in stage 4 load shedding and above.
- The system requires constant service.

After the extremely insightful presentation by Bevan, **Bob Williamson** gave an update on the activities planned for the November **All Africa Expo/ISTMA2023 Conference**.





Glenn Yon from Cape Metal Pressings recently received the company's PtSA Membership Certificate from Randall Felix, PtSA Western Cape Industry Development Manager.



Chris Conradie from Polyoak Packaging received the company's PtSA Membership Certificate.

Manufacturing production down in March

Manufacturing production decreased by 1.1% year-on-year in March, with the petroleum, chemical products, rubber and plastic products and textiles, clothing, leather and footwear being the largest negative contributors. The largest positive contributions were made by the food and beverages and motor vehicles, parts and accessories and other transport equipment sectors.

Seasonally adjusted manufacturing production increased by 4% in March, compared with February. This followed month-on-month changes of -1.3% in February and 0.3% in January. Read the full article in www.engineeringnews.co.za

We are Proud of our students

PtSA has always valued its students and recently touched base with a graduate from Gauteng, Gilbert Maela. Gilbert qualified as a Toolmaker in the Gauteng region and is currently working at MSSL Global (Automotive Sector) in Pretoria.



Gilbert emphasised that the TDM Skills Development Programme gave him the tools and knowledge and is managing the company's toolroom, shift operations, provides input and support to ensure preventative break-downs and is involved in maintenance of moulding and tooling equipment.

"I also assist the moulding department in reducing downtime in production and whenever I get a chance, I provide training and assistance to toolroom students," he added.

Being responsible for shift operations is a daunting task, but Gilbert embraces it with positivity and sees it as an opportunity to push his boundaries and to learn and empower himself.

S4 Integration spreading knowledge and interest amongst youth

S4 Integration, a member of PtSA is passionate about creating awareness in the fields of Science, Technology, Engineering and Maths amongst the youth and creating opportunities for young people to see real-life engineering projects and speak to engineering & software experts. The company recently hosted students from the STEM in ACTION group, a community engagement entity within the Engineering, Built Environment and Technology (EBET) Faculty at Nelson Mandela University. The aim of this visit was to give the group exposure to the world of software development and engineering and to top it off, an opportunity to engage with one of S4 Integration's Software Developers.



Join the Best - Become part of the Network

By joining PtSA, you become part of the network of companies which forms the tool, die, mould and specialised machining industry in South Africa.

Connectivity

- PtSA members have the opportunity to become part of the national and global network of TDM companies.

PtSA is the collective voice of the TDM industry

- The PtSA partnership agreement with government (INTSIMBI Future Production Technologies Initiative) facilitates dialogue between the TDM industry and government.

Improvement of competitiveness of PtSA members

- PtSA, through the process of improving the competitiveness of companies, facilitates the growth of the supplier base for the benefit of the larger corporates, and in particular the OEM's.

Training and upskilling programmes

- PtSA, as the Development Quality Partner (DQP), has developed a number of SAQA approved artisan qualifications and apprenticeship programmes for the TDM and Special Machining industry in South Africa.
- These programmes result in SAQA registered and QCTO and merSETA accredited Toolmaker NQF Level 5 and Tooling Machinist NQF Level 5.
- The programmes are offered in four facilities; QCTO accredited state-of-the-art PtSA Centres of Excellence across South Africa.

Networking, matchmaking and information programmes

- PtSA hosts regular Networking meetings in the Western Cape, Eastern Cape, Gauteng and KwaZulu-Natal.

Better understanding of the Fourth Industrial Revolution (4IR)

- PtSA facilitates the understanding of technology developments for its members by means of information programmes, demonstrations, publications and networking.

PtSA facilitates international connections for its members through its membership of the International Special Tooling and Machining Association (ISTMA World)

- Access to over 23 Associations in 22 countries/8000-member companies.

PtSA promotes sustainable development within the industry to ensure long term growth of the industry

- PtSA facilitates opportunities for members to have access to information, training, workshops, etc. on sustainable development.

PtSA corporate facilities are available for use by its members PtSA website provides information about international and national news, events and trends in the industry.

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Do you want to **Advertise** your product or services to the Tooling Sector?



- PtSA is offering the opportunity to advertise in the PtSA News (*Newsletter of the Production Technologies Association of South Africa*)
- PtSA News is widely distributed both in South Africa and Internationally
- PtSA News is the only publication which is focussed on the Tool, Die, Mouldmaking and Special machining Industries in South Africa

Advertising Fee Structure: (Excl. VAT)

Size	Per Issue		Annually (6 issues)	
	PtSA Member	Non-Member	PtSA Member	Non-Member
1/4 page	R2 400	R4 895	R12 690	R25 395
1/2 page	R4 800	R6 630	R23 500	R34 875
Full page	R6 500	R10 760	R31 600	R55 680
Outside Back cover	R9 500	R16 600	R46 800	R85 500

Please contact Liza du Plessis at lizadp@ptsaco.za for details, or to book an advert!