

PALLAKKI: Assuring **QUALITY** through **EXCELLENCE** in NDT



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Sashidhar P. Pallakki is Director & CEO at Bangalore-based Pallakki NDT Excellence Center Pvt. Ltd. which has the distinction of having trained and certified over 3000 NDT professionals who are gainfully employed in India and abroad, thus playing a pivotal role in skill development in the country. An M.Tech in Mechanical Engineering, Sashidhar Pallakki has spent over 26 years in the field of non-destructive testing and certification. He has obtained his NDE Level III certification from ANST and ISNT in six different methods of non-destructive testing used for assurance of quality and reliability of critical components in aerospace and elsewhere in the industry. The current General Secretary and Chairman-elect of ISNT-Bangalore Chapter, he is a visiting faculty to CMTI, FTI, MSRIT and BMS Engineering Colleges. He continues to be an ASME U & U2 Stamp Pressure Vessel Consultant in NDE for several organizations. In an exclusive interview with P.K. Balasubramanian, Editorial Head, Sashidhar Pallakki narrates the success story of Pallakki NDT Excellence Center founded and built by him through his unstinted efforts. It is today an NADCAP and NABL Accredited and DGAQA approved company offering comprehensive NDE services to a plethora of industries. He envisions setting up an exclusive test center for airborne components using state-of-the-art technology, and expanding his infrastructure adding sophisticated equipment which will culminate in serving the customer better, while providing employment opportunities to many including women and the physically challenged. Excerpts:

Q. Could you give a brief overview of your company and tell us about your niche and standing?

Bangalore-based Pallakki NDT Excellence Center Pvt. Ltd. Pallakki is a NADCAP and NABL-2017 Accredited, AS 9100-2016, ISO 9001-2015 Certified and DGAQA approved company in NDE services. Established in 2001, Pallakki provides quality and reliable NDT services on time and also imparts quality training in the field.

Besides being one of the NADCAP Accredited Aerospace NDT labs and NABL -2017 accredited NDT Labs, the company also provides ANST NDT Level II Training, NDT Level III





Radiography Testing of a Helicopter Blade

Consultancy and Aerospace NDT Services to Top NDT Companies based in Bangalore-INDIA. We render these services throughout India, through a team of highly qualified, certified and devoted professionals having substantial experience and multi-disciplinary background, using world-class NDE equipment and accessories. We have 200 plus national clients from public sector and defence who can vouch for our quality services and reliability. We continue to meet the ever-growing demands of the market and take formidable new challenges in various sectors like Aerospace, Automobile, Earthmoving, Petrochemicals, Oil & Gas, and Process Industries like Foundry, Forging and Fabrication.

Q. NDT methods are many, and the right selection of the method for testing a specific material or dynamic component depends on your prudence and ingenuity. Please comment.

True. Knowing things alone will not do; you must be able to do them physically. There are 70 plus NDT methods. Each one has its own advantages and limitations. Hence right selection of the best suited NDE method is important. It

is not only sheer selection; the method should be justifiable in all respects including cost, time, accuracy and reliability. This is possible only with in-depth knowledge and experience.

Q. NDT in aerospace is very critical. What are the qualifications required for NADCAP accreditation? What are the NDT methods used in this industry to ensure quality and utmost reliability?

As compare to all other sectors NDT is very critical and seriously considered in the Aerospace sector. In the Aerospace Industry high ranking officials are

directly involved in the NDT activity to ensure 100% implementation of written Procedures. There are many certification schemes existing but for Aerospace and NADCAP requirements, the person who performs the examination must have undergone several hours of training, and before training he/she should meet the initial requirements to qualify for training, examination and certification.

NAS-410 is the Standard guideline for Personnel NDT certification in the Aerospace Industry.

There are many conventional and advanced NDE methods used in Aerospace Industry, but majorly Surface NDT Methods like Fluorescent Penetrant, Magnetic Particle and Eddy Current Tests are used because Surface defects are more detrimental than internal defects.

Q. In NDT two things are crucial: qualified and trained people and the right equipment. What's your score on these resources?

Qualified and certified people are important and crucial in Aerospace NDT. No matter however advanced the technology may be, it is highly impossible to eliminate human involvement in the NDT processes.



A Training Session in progress



A crack found in a bolt

This is why most of the Codes and Standards are emphasizing on training the NDT personnel so that we can avoid human errors. Similarly appropriate equipment, accessories and consumables are also equally important. Qualified NDT Personnel and right equipment are complementary to each other.

Q. What are the capabilities demanded and challenges involved in your business?

Migration of engineers is a major challenge faced by NDT industry,

especially service providers. After gaining experience, these engineers eye for job opportunities abroad. For fresh graduates, NDT is the last option because it is not a white-collar job.

NDT is relatively a small world. Hence the players tend to have a monopoly, especially in the Aerospace NDT.

Q. What are the approvals and certifications you carry?

Pallakki NDT Excellence Center has got almost all types of approvals and certifications like ISO-9001, AS-9100,

ISO-17025, NABL, NADCAP and GAQA, as well as many individual customer approvals like GE, HAL, BEL, BEML, Railways, Namma-Metro, etc.

When it comes to certification of NDT personnel, there are various standards Like ISNT, ASNT, ISO-9712, PCN, NAS-410 Level III, etc.

Q. You are also into training and certification. What's your contribution towards skill development in the country?

Pallakki NDT is the only Bengaluru-based private organization that trains and certifies personnel in NDT. Till 2009, we have had trained and certified more than 3000 NDT personnel. Of late, we are concentrating more on NDT Service rather than training. Nevertheless, we conduct Employer-based, organization-level certification programs. Most of the Pallakki NDT trained personnel are gainfully employed and spread across different states and the Middle East.

Q. Do you also offer consultancy?

Pallakki NDT also provides Level III consultation to various Industries starting from equipment selection to job output mechanism by using automation, adopting AI and ML (Artificial Intelligence and Machine Learning).



Customer interaction (with Toyota officials)



In-situ Inspection: Pallakki has a highly qualified and experienced NDT team of 60 professionals

Q. Who are your major customers?

We have served and satisfied more than 200 reputed customers like NAL, HAL, ISRO, BARC, BEML, BEL, NPCIL, DRDO, ADA, NAMMA-METRO, GE, Rail Wheel Factory, South Western Railway, Siemens, Flender, Bosch, Hyundai, Mahindra, Maruti, Shell, L & T, Indo-MIM, ACE Multi-Axles, Nestle, JK Tyres, Automotive Axles, etc.

Q. May we have some idea of your infrastructure and facilities?

Pallakki NDT has a team of 60 members. We have full-fledged NDT facilities including BARC approved Radiation enclosure, FPI booth system, Stationary MPI-6000 Amps machine, etc. We have more than 10,000 sq. ft. built-up area with a 4 MT crane for



Non-destructive testing of an aerospace component

material handling. And we are located in Asia's largest Industrial area, Peenya in Bengaluru.

workplace

2012-15 - Steadily acquired the market by establishing different NDT Methods

2016 - Obtained ISO 17025 & NABL Accreditation

2017- 20 - Got well established in the market by serving 200+ customers in and around Karnataka and neighboring states like Goa, Maharashtra, Andhra, Telangana, Tamil Nadu and Kerala

2021 - Secured AS 9100 certification and NADCAP Accreditation

2022 - Entered into advanced NDE System

Q. What are your major milestones?

2001 - Pallakki NDT came into being. Was started by a single person with rented equipment and operating from a rented house

2002 - Acquired ISNT Level III certification

2004 - Moved to small shed of 900 sq. ft. in Peenya Industrial Area

2004 - ISO-9001 certified

2005 - Obtained International ASNT Level III certification (As on today only around 3000+ Level III are available in the whole of India)

2006 - NDT Training and certification started in Bengaluru (The first private Bengaluru based company to start this training)

2007-2010 - Company strength increased to 15 members

2011- Moved to newly constructed

Q. What is the way forward for Pallakki to stay ahead, harnessing cutting-edge technologies and techniques?

We at Pallakki NDT always believe in attaining small incremental growth by understanding the pulse of the market. Now most of the Aerospace players are setting up their shops in Bengaluru. Hence Aerospace promises a great growth potential for a company like us who can excel in the domain of NDT by adopting newer technologies and latest equipment. ■



In-situ Inspection by Pallakki Team