



Research. Development. Consulting.











The Competent Partner for the Graphic Arts Industry

The Sächsische Institut für die Druckindustrie (SID) was founded in 1990 as Polygraph contacta and carries the name SID since 1993. Since then, three tasks have been the focus of our activities: We are a research and development partner for manufacturers of graphic arts machinery, service provider for the graphic arts and production sectors and competence centre for technology transfer within the industry.

Most of our research and development assignments are commissioned by small and medium-sized companies which we are able to support using our profound know-how. Subsidised by federal ministries and state governments, we are also engaged in market-related industrial research with the aim to develop new, future-oriented technologies for the graphic arts industry. Furthermore, we are involved in industrial cooperative research projects which are conducted by industrial associations like VDMA and bvdm/Research and Technology.

Whether for process engineering or graphic arts machinery manufacturing: We are continuously in search of innovative and pioneering solutions in all our fields of activity.

- 1 Register measurement with the LUCHS IV
- 2 Hardware development for a special measuring device
- 3 Laboratory tour during a SID symposium
- 4 Examination of the surface tension on a substrate

Having a prominent presence at universities, research boards and associations is a prerequisite for success in research since this is the only way to bring together what belongs together: Competent partners who set the course for the future of the industry. SID takes this task very seriously. We work together closely not only with large press manufacturers but also with small to medium-sized companies and well-known institutions. Belonging to this group are, for example:

- Bundesverband Druck und Medien (bvdm) e. V.
- Verband Deutscher Maschinen- und Anlagenbau (VDMA) e. V.
- DFTA Flexodruck Fachverband e. V.
- Papiertechnische Stiftung (PTS)
- Verband innovativer Unternehmen e. V. (VIU)
- Sächsische Industrieforschungsgemeinschaft e. V. (SIG)
- Deutsche Industrieforschungsgemeinschaft Konrad Zuse e. V.
- PACKNET® DRESDEN

Together we are devoted to relevant subjects like the use of UV inks and the functionality of packaging. While today, digital printing technologies or Industry 4.0 present new challenges, tomorrow it may be environmental issues like mineral oil-free printing, energy consumption or industrial safety. Often, it's the yet unsolved or seemingly unsolvable problems for which we search and find innovative solutions for.

As a competent and neutral partner, SID is open to the whole graphic arts industry. This is the reason why we can fully commit ourselves to cooperative research and development assignments without any conflicts of interests.

Which products would you like to develop? Which questions await answers? SID is your competent partner!

With its Technology Transfer Centre, the accredited Test Laboratory for Print Quality and Postpress as well as the Measurement Technology Laboratory, SID is extremely well equipped for the challenges of today and tomorrow.

Here are some of our latest research areas:

- Offset printing
- Flexographic printing
- Digital printing
- Label and packaging printing
- Printing press construction
- Register measurement and analysis
- Special printing applications
- Development of measurement equipment
- Print finishing

SID researches and develops.

Solutions for machine construction, prepress, print and postpress.

Supported by:



on the basis of a decision by the German Bundestag

Contract Research for Small and Medium-**Sized Companies**

Market-Oriented **Industrial Research** Supported by Federal and State Governments

Development of Special Machine Modules as well as Measurement and Testing Devices







With its profound know-how, SID supports companies who do not have the necessary research capa- research networks of companies bilities of their own. Such support and institutions in the printing can be special measurement tasks, industry. Together with these the development of complete machine modules or topics like:

- Optimisation of UV drying
- Machine testing
- Functional printing
- Surface pretreatment
- Coating adhesion
- Process adjustments in digital printing
- New types of printing inks

As a non-university institution, SID belongs to various international partners, we have efficiently and quickly executed multiple projects.

Some examples:

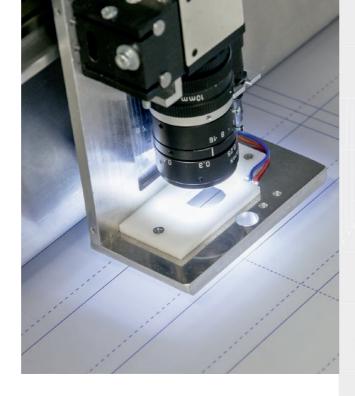
- Mineral oil-free newsprint inks
- Colour stability in sheet-fed offset printing
- New applications in inkjet printing
- Paper dimension stability
- Innovative measuring elements for registration control
- Quality control in UV printing and postpress

In cooperation with press manufacturers and printing companies, SID develops special machine modules as well as measurement and testing devices for global usage.

For example, the LUCHS Register Measuring System belongs to the "hand luggage" of every press installation team.

Other systems are in use for:

- Hardening degree measurement of UV inks
- Measurement of the damping solution composition
- Measurement of the necessary opening force for packages
- Adjustment of rollers and cylinders in printing presses as well as transport rollers in processing machines
- Packing height
- Measurement of the strength of perfect bound bookblocks







DAkkS accredited test laboratory according to DIN EN ISO/IEC 17025. The accreditation is valid for the testing

- 1 Micrometer-accurate printing plate positioning
- 2 Production of standard test prints for the evaluation of ink curing
- 3 Sheet nath measurements with laser triangulation on a printing press
- 4 Determining the opening force of yoghurt containers

The close affinity of SID to the press manufacturing and printing industries has been a long-standing tradition. This is the reason why, in addition to our research and development activities, we also offer individual services in the fields of measurement technology, consulting and certification.

As an industry insider, we can not only provide you support using our expertise but also by using the complete scope of our testing laboratories - quickly, efficiently and cost effectively. Legally binding expert reports belong to our services as well as technical inspections. This brings you peace of mind when making an investment in new or second-hand equipment, when making repairs, maintaining your equipment and making error diagnosis.

We can competently and reliably provide you support for the certification of your quality or environmental management system, during the implementation of Process Standard Offset printing or for preparing for FSC® or PEFC™ certification.

How do you define success? How high are your quality standards? SID offers you the parameters and the tools!

Commitment to the Printing Industry

We apply our knowledge and experience across all industries in order to be able to react flexibly to future issues. The foundation for this is our dedicated employees, our modern technical equipment, a wide range of completed project topics and the cooperation with renowned project partners.

We focus our activities towards:

- The improvement of material properties and appli-
- The development and optimisation of technologies, processes and products
- The consideration of environmental and health issues
- The increase in resource and energy efficiency.

Our employees are involved in teaching and training at colleges and universities. We regularly work with students during their required internships and in preparation for their Diploma, Bachelor's and Master's theses. We pass on our know-how in training seminars and technical lectures and present our work, research, services and products at symposiums, conferences and trade fairs.

SID welcomes and respects individual and cultural differences and is committed to creating an inclusive, accommodating, and equitable environment. We fundamentally reject discrimination of any kind.

SID advises and examines. Individual services for the printing industry.

Expert Reports, Machine Acceptance Tests, **Material Tests and Process Standard Offset**



SID offers tests and expert reports for machine and product quality including inspection and acceptance tests based on the bydm handbook, material analyses and certifications according to Process Standard Offset (PSO) and for digitally printed data.

Here is an extract of our range of services:

- CtP platesetter acceptance tests
- Acceptance tests of printing presses in offset, flexographic and digital
- Inspection and acceptance tests of postpress machinery
- Conformity certificates for PSO and digitally printed data
- Material tests
- Solution for technical printing problems
- 1 Measuring a sample sheet for a certification
- 2 Tonal value measurement on a flexographic printing cliché
- 3 Consultation meeting on quality management topics
- 4 Microscopic image of a damaged printed area due to powder particles

Expert Reports, Machine Acceptance Tests and Material Tests

Implementation of **Management Systems: Process and Quality** Management

Services and Support for Prepress, Printing and **Postpress**







a time frame of 6-8 hours on-site is to be expected and the files for the necessary test forms are provided in advance by SID. The individual test forms are printed one after the other using different printing conditions and the mandatory print samples are taken.

For an acceptance test of varnishing units, the sheet surface is completely varnished and the homogeneity and consistency is examined.

An acceptance test should take place as quickly as possible after the press has been installed.

The press manufacturer must declare that the press is ready for the acceptance test and should provide a service technician onsite during the acceptance test procedure so that any necessary setup and adjustment actions can be carried out immediately, if needed.

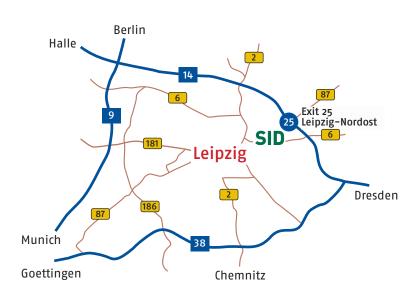
For a printing press acceptance test, What rules do you follow in terms of orderliness, organisation, responsibility and safety? When and where does your company have its uneconomical periods? Decisive questions for manufacturing companies which can be answered by clear international standards. We are able to guide you during the implementation of:

- Preparations for FSC® and PEFC™ certifications
- Quality management according to ISO 9001:2015
- Environmental management according to ISO 14001:2015 and EMAS
- Hygiene management according to HACCP

The Technology Transfer Centre and the Test Laboratory for Print Quality and Postpress are centres of expertise and experience enabling us to give optimum advice and support for the printing industry. Our services include:

- Examination and evaluation of your RIP system and workflow
- Assistance in problem solving and for the implementation of new technologies like UV printing, waterless or IPA-free offset printing and digital printing
- Support in process optimisation to attain Process Standard Offset printing specifications
- Adjustment of prepress and press processes for the new requirements of ISO 12647-2:2013







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