

Advance Screen Print Training Program for High-Demanding Graphics, Industrial & Electronic Applications

This program has been specially prepared for screen printing operations requiring a high degree of performance to meet customers' close-tolerance/tight specifications

Preliminary Training Outline Schedule

Why training?

Good question. In truth, the majority of screen printers have never received any form of recognized professional print training, as it relates to the process, yet they are expected to produce some of the finest printed results seen anywhere. Not only is this feat demanding and a huge challenge to deliver the quality as advertised, it frequently means production never really achieves its budget goals due



to production cost spiraling beyond original estimates for most jobs—a reality that is oftentimes not recognized until much later.

When a company buys a new software program, they reasonably expect 100% from it. One department may use only 15% of its total potential while another department a different 15%, although everything is equally available to them and others. When someone is employed to screen print glass, there is an expectation the company will receive a return close to 100%. Instead, due to the lack of necessary knowledge and basic understanding of the process—they cannot possibly deliver a finished quality printed product in the same efficient manner as companies having the essential skills and technical know-how. The 'blind' leading the blind without advance process knowledge was clearly evident at one printing operation who reportedly spent three days with three people printing three pieces of glass! This fittingly gives a new significance to the swashbuckling movie 'The Three Musketeers'.

Work smarter—not harder!

Rather than throw the proverbial 25 cents or more down the drain for every dollar earned, consider holding a professional structured training session on-site, right at your own facility. The program is specifically planned to better utilize existing plant more effectively while improving skill levels and developing superior processing techniques with numerous unique 'no-cost' solutions. Interestingly, hassle-free production has long proven to have a greater impact on a company's bottom-line—regardless of equipment's original cost or level of sophistication! As the world's craving for up-market and industrial screen printing applications continues to escalate, the need to control production cost while raising quality becomes paramount for senior management.

Imagetek's one-of-a-kind screen print training program outline has been explicitly structured for demanding graphics, membranes/overlays, EL, PV/solar, PCBs, touchscreens, trim, decals, dial/gauges, etc. Regardless of marketplace specialization, however, all programs enjoy the same objectives—to enhance quality while increasing throughput and bottom-line profit. This gives logic to the epitome of *work smarter—not harder*, since pre-press (screen-making), setups, on-press techniques and changeovers will all be taken to another level in excellence and performance.

Advanced Training Session Outlined

This outline covers a preliminary schedule for reviewing a typical high-end screen printing operation, which considers management objectives as well as troubleshooting/problem-solving current productivity issues as well as operators' skills and processing techniques. It also provides hands-on training, conducts two advance technical training seminar sessions and offer professional recommendations for future improvements to enhance overall productivity and print quality.

The seminar session is usually conducted in two parts; 'pre-press & make-ready' (everything that happens before printing) and then 'on-press' (everything that happens

during and after printing). They should ideally be held over two separate days preferably, since a tremendous amount of in-depth information will be reviewed. This 2-day program exemplifying is based on familiar problems associated with printing to extreme standards and allows company's objectives to be taken into consideration too. Together with past and present problems included in the final program, it is customized to a company's style of operation and equipment with personnel skill taken into consideration.

The seminar sessions, as well as any other parts of the training program, may be videotaped for future training purposes. Appropriate overhead colored LCD slides shown are selected from a library of some 800 illustrations, which are uniquely prepared and drawn in extraordinary detail for ease of understanding by all. They will be made available on a reproducible CD to print hard copies or for future training purposes—perfect material for long lasting in-house education & training, particularly with ISO 9000 certified operations. Time allocation given for each

scheduled segment is flexible and management is encouraged to modify the program according to their needs and issues to be handled. Although the outline given here a



2-day program sampling, training programs, project-based assignments and consulting are available for longer duration depending on need.

Example of a typical 2-day training schedule outline

DAY ONE

8-8:30a Opening Session with management and department supervisors involved.

Outline program and discuss existing and new objectives for the printing operation as well as problems and on-going concerns. Any potential changes/revisions to the program at this stage ought to be discussed although it can be kept very flexible. Areas targeted are directed towards screen preparation, press make-ready, on-press activities and finishing in order to take control of the screening process. In particular, emphasis relates to quality and consistent uniformity throughout the printing operation as well as the ability to reduce rejects and increase uptime. Provide better understanding of printing equipment and techniques required.

Most tasks listed below require only the minimum of chaperoning and without interruption of work being processed. Other than for the seminar sessions, productivity should not be affected.

8:30-10a Initially tour the whole printing department including screen-making/storage area as well as the QC, to obtain an initial perspective of the overall printing operation and related problems if known.

10-12n Conduct an in-depth review of pre-press protocol: screens, screen making, storage, documentation & QC, to observe all procedures and processing steps for hands-on training. This would be carried out in a manner to maximize pre-press and to enhance the type of work for the application and style of printing. History of all past and present problems should be raised at this time by department supervisors and engineers. If screen-making is outsourced, observations and notes will be taken in preparation to provide an updated protocol on specifications to meet new goals in screen making.

12-12:30 Prepare seminar session with LCD projector and setup site for the presentation.

12:30-1p On-site lunch.

1-3:15p Conduct the first seminar session on 'Pre-Press & Make-Ready', which deals with everything before printing commences. Ideally, all essential personnel and support staff directly responsible for the printing operation should attend. Based on observations made and objectives, perhaps as many as 70 – 80 color slides will be shown. All drawings shown are designed for easy comprehension—even for entry-level personnel.

2-day training schedule outline (cont.)

This session includes an introductory series of advance screen making techniques and processing know-how, which are necessary to optimize print quality consistency and yield, through superior screen making techniques and adopting new processing skills.

It is recommended and encouraged during both seminar sessions that department heads and supervisors continuously press for questions from subordinates, thereby getting them actively involved in bringing up known concerns for the purpose of problem-solving. Many operation/production managers claim this is the best part of the program and most invigorating—with time given for Q & A.

- 3:15–4:45p Conduct an in-depth review of the printing operation to observe and note all procedures and practices for hands-on training. As with pre-press, this would be carried out in a fashion to suggest preliminary recommendations to maximize techniques, enhance actual printing practices and prepare for the ‘On-Press’ seminar session scheduled for the next morning. As with the earlier session, history of all past and present problems ought to be raised at this time by department supervisors, lead press operators and responsible process engineers.
- 4:45–5p Review of activities to management and discuss next day’s activities including following morning’s seminar session.

DAY TWO

- 8–11a Conduct the second seminar session, ‘On-Press’, which deals with everything that happens during printing—from the first print stroke to drying. Depending on observations made and objectives, as many as 70 - 80 color slides will be shown. Session will include a series of advance printing techniques and know-how that are necessary to optimize personnel to ‘print smarter rather than work harder’. It is highly suggested that everyone directly involved in the screening operation attends these two sessions—regardless to the nature of their role, which is structured in the same manner as the previous on held on day-1.
- 11–12n Revisit screen making/storage following the ‘pre-press/make-ready’ seminar, to introduce new procedures, protocol and conduct hands-on training as required. In addition to assessing what was learnt, it gives personnel another chance to exchange ideas or views and handle questions not asked during the seminar, to see what improvements can be made in the immediate future. Department heads or supervisors should be available for this session.
- 12–12:30p On-site lunch.
- 12:30–3p Revisit the printing department to introduce new procedures and conduct hands-on training as required. In addition to assessing what was learnt, it gives personnel another chance to exchange ideas and handle questions not previously asked during the seminar session, to see what improvements can be made.
- 3–4:30p Conduct a final review and hands-on training with the complete operation together with any other activities and exchange last minute ideas and questions. This will be conducted with the intent of finalizing any desirable changes, if any, that are to be implemented. This gives personnel their last chance to learn and accept new techniques and handle questions that were not asked throughout the program. An extremely important part of the exercise is to use this opportunity to see if everyone ‘buys’ into the program, for working smarter—not harder!
- 4:30–5p Closing session with management with summary of activities including notable findings, suggestions and initial recommendations.

**Training programs for 3 – 15 days, or longer
can be custom prepared according to needs**

Typical Reasons for Requiring Advance Print Training

Making use of a professional trainer to update processing techniques to impart technical know-how and elevate skill levels that will enhance quality, production and reduce operation costs. Below are some of the reasons why plant managers seek advance in-plant print training:

- ⇒ Reduction in production budget
- ⇒ Operation overload
- ⇒ Meeting seemingly impossible deadlines
- ⇒ Improve shippable yields
- ⇒ Extensive long equipment/production downtime
- ⇒ Increase bottom-line profit
- ⇒ Lack in-house expertise for troubleshooting/problem solving
- ⇒ Reduce high rejects and costly waste
- ⇒ Operation simply not competitive enough
- ⇒ High turnover of skilled personnel
- ⇒ Unacceptable decline in operation profitability
- ⇒ Company/department downsizing but wanting to excel
- ⇒ Seek additional or develop new skills and processing techniques
- ⇒ Overhaul an inefficient operation / retain operation profitability
- ⇒ Periodic/routine fine-tuning of process and overall production
- ⇒ Cost-effective audit to monitor and preserve existing quality integrity



How Objectives are Achieved

To achieve the objectives, several tasks have to be employed and conducted first, while the usual routine for doing are not limited to the following within any given program:

- Review complete operation (screen-making to press make-ready, on-press printing to finishing)
- Address methodology and a wide range of processing techniques
- Audit the complete printing operation, as required, including greater understanding of new and/or sophisticated equipment/turn-key lines
- Consulting/train on specific objectives and future needs with existing personnel
- Troubleshoot according to need / problem-solve and solution-find as necessary
- Analyze technical requirements in detailed specifically to the style of operation and printing specialties— against existing personnel and needs
- As necessary render first-class quality technical hands-on training, either as a group or one-on-one
- Tackle issues concerning the switch to modern/new screen printing equipment or coating technology
- Introduce new imaging techniques for decorative images (tonal effects, 4-color process, etc)
- Oversee written procedures for various processes and practices as required

Additional information

Program ideas and professional fees to conduct any type of advance training session will be determined upon agreed schedule outline and duration. Please call Imagetek Consulting for further information.

While this particular outline has been specifically prepared for high-end screen printing operations, other program outlines are available according to market specialization.

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