

DACUM Research Chart for Offset Printing Technician

General Knowledge and Skills

- Basic calculations
- Basic mechanical skills
- Coaching skills
- Colour identification
- Interpersonal skills
- Language skills
- Materials knowledge
- Paper handling skills
- Press operations
- Print terminology
- Printing process
- Printing tools
- Reading skills
- Time management skills
- Troubleshooting skills

Tools, Equipment, Supplies & Materials

- Allen Key
- Bearing Extractor
- Blanket Gauge
- Conductivity Meter
- Densitometer
- Ear Plug
- Face Mask
- Feeler Gauge
- Glass Meter
- Hand wash
- Hydrometer
- Ink Knife
- Ink, plates, paper
- Magnifier/Eye Glass
- Micrometer
- Packing Gauge
- Packing Sheets
- Pails
- Penknives, Scrapper
- pH Meter
- Plate Register Punch Rags
- Rubber Blankets
- Rubber Glove
- Ruling Table Pantone Color Chart/Reference
- Screw Driver
- Spanner
- Spectrometer Measuring Tape/Ruler
- Sponge
- Stationery, e.g. writing paper and pens
- Tool Set Board
- Torque Wrench
- Vernier Caliper

Future Trends and Concerns

- Decreasing profit margin
- Digital printing trend
- High cost of paper
- Increased automation
- Increased computerisation

Worker Behaviours

- Adaptability
- Attentive
- Cooperative
- Fast learner
- Hardworking
- Honest
- Initiative / Resourceful
- Organised
- Punctuality
- Receptive to comments / feedback
- Reliable
- Responsible
- Self-motivated
- Team player
- Willing to accept changes
- Work under pressure

- Chemicals
 - Alcohol (IPA)
 - Anti skinning spray
 - Blanket/Roller Wash
 - De-glazer
 - Deletion pen
 - Fountain solution concentration
 - Gum
 - Ink dryer
 - Ink reducer
 - Lubricant e.g. grease or oil
 - Plate Cleaner
 - Silicon
 - Spray Powder
 - Varnish

DACUM Research Chart for Offset Printing Technician

DACUM Panel

Mr Cheah Yok Chon
Trainer (Printing)
Winson Press (Attached)

Mr Chiu Siong Lam
Planner
Markono Print Media

Mr Colin Yeo
Assistant Manager
Singapore Press Holdings

Mr Michael Lau
Technical Engineer
Mead Westvaco Singapore Pte Ltd

Mr M Rafee Marican
Print Manager
Fabulous Printers Pte Ltd

Mr Wu Yu Yang
Production Supervisor
KPP Packaging

DACUM Facilitators

Chief Facilitator

Robert E. Norton
DACUM/SCID Programme
Director, CETE, OSU

Facilitators

Ms Au Yong Wai Harn
Merck Sharp & Dohme (S) Ltd

Ms Cynthia Yap
HR POD Pte Ltd

Mr Ku Wei Kian
Institute of Technical Education

Mr Lim Keow Teck
Keppel Shipyard Ltd

Mr Robin Koh
SIA Engineering Company Ltd

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18 – 19 August, 2005

Duties		Tasks													
A	Prepare for Print(Job) Production	A-1 Obtain production job sheet	A-2 Analyse production job sheet	A-3 Locate job materials (e.g., plate, paper, ink)	A-4 Confirm paper specifications (e.g., weight, dimension)	A-5 Check job materials quantity	A-6 Check job materials quality	A-7 Check customer's reference colour proof	A-8 Check customer's reference blueprint	A-9 Determine print colour sequence	A-10 Mix printing ink	A-11 Condition papers for printing	A-12 Trim make-ready papers		
		B	Set up the Press (Printing Machine)	B-1 Load the paper onto feeder unit	B-2 Set the feeder to the paper size	B-3 Set the double-sheet detector	B-4 Set the feed board to the paper size	B-5 Set the register system (side lay & front lay)	B-6 Set the delivery system to the paper size	B-7 Perform a free run (pass sheets)	B-8 Load the ink into the ink duct	B-9 Set up preliminary ink key level	B-10 Mount the printing plate	B-11 Mount the rubber blanket	B-12 Set the printing unit pressure
		B-14 Ink up the rollers													
C	Conduct Trial Print	C-1 Load make-ready sheets	C-2 Run off first press trial print	C-3 Perform print registration (check & adjust)	C-4 Perform image positioning (check & adjust)	C-5 Check printed sheet pagination	C-6 Rule out printed sheets (die-line / line marking) – check position & size of product	C-7 Proof check against blueprints	C-8 Delete unwanted images	C-9 Draw the control marks (side lay & front lay)	C-10 Print to match colour proof				
		C-11 Measure colour density	C-12 Check for print defects	C-13 Set the powder spray level	C-14 Obtain internal & external approval (press check)										
D	Run Mass Production	D-1 Plan print job to reduce wastages / stoppages	D-2 Set quantity counter	D-3 Determine optimal production speed	D-4 Maintain print quality consistency	D-5 Check powder spray distribution	D-6 Maintain ink supply	D-7 Maintain dampening solution supply	D-8 Palletise print run (with palette control card)	D-9 Change paper load	D-10 Identify sample sheets	D-11 Perform housekeeping (on tools and printed sheets)	D-12 Report adverse problems	D-13 Record control card / production report	
E	Wash up the Press (Printing Machine)	E-1 Follow safety procedures	E-2 Clean printing plates	E-3 Gum printing plates	E-4 Wash rubber blanket	E-5 Remove ink from ink duct	E-6 Wash ink duct	E-7 Wash ink rollers	E-8 Wash dampening system	E-9 Clean impression cylinder	E-10 Clean machine area	E-11 Preserve used plates			
F	Maintain the Press	F-1 Distribute maintenance work	F-2 Follow maintenance procedures	F-3 Clean the compressor air filter	F-4 Clean the powder system	F-5 Clean the delivery unit	F-6 Clean machine sensors	F-7 Clean eye mark	F-8 Change the water in the dampening system	F-9 Maintain the dampening rollers	F-10 Clean the printing unit	F-11 Check blanket / packing	F-12 Clean the feeder unit	F-13 Clean the transfer system	F-14 Maintain the inking rollers
		F-5 Grease the grippers	F-16 Grease the CAM follower	F-17 Check oil safety level	F-18 Clean up the machine's exterior	F-19 Document maintenance work									
G	Participate in Support Activities	G-1 Clock in / clock out work time	G-2 Record job time details	G-3 Cooperate with co-workers	G-4 Serve as team leader	G-5 Coach assistant technicians	G-6 Participate in in-house training (e.g., OJT, computers)								

Manager (Print / Binding)

INTERNAL

Engineering Department

Customer Service

Logistic Support

Pre-Press Technician

Supervisor



**OFFSET PRINTING
TECHNICIAN**



Assistant Printer

EXTERNAL

Service Technician

Client (remote)