

# LithoTech International P/L

Presenting

Marketing and Installation Guide  
for

**"2in1" Fountain  
Solution**

Which is now available in Australia

**"2in1"**

**TECHNOLOGY**

# At the forefront of "2in1" technology



Brian Moore

Chemist

BM Management cc



Nick Richards

Director

Photo Litho Transvaal  
Agent

South Africa

# Brian Moore

Brian Moore the inventor of "2in1" Fountain Solution commenced work at Howson / Algraphy UK where he was chief Research chemist. He invented the world famous MARATHON PLATE in 1967 and became works manager. He then upgraded the factory to produce this plate for the next 3 years, which was sold all over the world.

When Brian left the U.K. in 1970 to found PHOTO LITHO PRODUCTS in Salisbury, Rhodesia, he became the FIRST LITHOGRAPHIC PLATE PRODUCER in AFRICA. After inventing and marketing the EXTRALITH NEGATIVE Plate which was sold for over 10 years together with a full range of Plate and Machine chemicals, he joined the 3M company in Durban RSA where he invented and produced (independent of the states) the extremely popular GAZELLE positive plate.

# Brian Moore (Cont.)

Due to political problems 3M withdrew from their main activities in South Africa and he took over the business and named it PHOTO LITHO DURBAN, where he continued to make litho plates until the South African government decreed we had to use locally produced aluminium which was inferior to the German aluminium which he imported.

On the cessation of platemaking, together with Nick Richards, opened up PHOTO LITHO TRANSVAAL in Johannesburg on chemicals only. This operation grew quickly and necessitated the formation of a manufacturing company in Johannesburg which is called B.M.Management cc .Here they produce the patented product **2 in 1 Fountain Solution** which is a world first enabling the printer to use his presses with only one doser, the other doser becoming obsolete.

# Presses have changed



What about chemistry ?

# Why use the worlds best fount on the market

- FOGRA approved
- 20% Less water
- Faster ink water balance
- More control of colour
- Higher flash point
- Lower VOC
- Safer to use than IPA
- Premixed balanced equation



# Advantages of using “2in1” Fountain Solution

- Only need to mix two components not three = **easier and better control**
- Less flammable (Higher flash point 42 degrees Celsius) = **safer no raw IPA in Pressroom**
- Greater wetting properties therefore less dampening solution to press = **efficient**
- Less Ink usage = **quicker drying and saving ink**
- Better dot registration = **cleaner, sharper and brighter image**
- Lower VOC (Less alcohol in air) = **healthier**



# Fountain Solutions

- Provides wetting
- Reduces level of alcohol required
- Improves ink registration on plate
- Various other qualities depending on chemical components ( pH buffering , conductivity, anti microbial )
- Remember **ALL** fountain solutions are corrosive (including "2in1") so do not transfer with metal pumps or containers

# Isopropyl Alcohol

## Advantages

- ✓ It is relatively inexpensive
- ✓ Has excellent wetting properties

## Disadvantages

- ✓ Flammable (low flash point 12 to 19 degrees)
- ✓ Restrictions on storage and transport
- ✓ Vaporises (volatile organic concentration in air VOC)
- ✓ Environmental pollutant

# Advantages of 2in1 Fountain Solution over Isopropyl Alcohol

- Easy to use (Only water and 2in1 in reservoir)
- 22% better wetting properties than IPA
- Considerably lower fire risk (Flash point  $23.5^{\circ}\text{C}$ )
- Less on press therefore lower VOC in pressroom
- More control (Hydrometer and thermometer only)

# Conventional Dampening System

## Dampening Solution

```
graph TD; A[Dampening Solution] --> B[Water  
84% - 90%]; A --> C[Fountain Solution  
2% - 4%]; A --> D[Isopropyl Alcohol  
8% to 12%];
```

**Water**  
84% - 90%

**Fountain Solution**  
2% - 4 %

**Isopropyl Alcohol**  
8% to 12%

# “2in1” Fountain Solution

Replaces both fountain solution and alcohol in the dampening solution

## Dampening Solution

```
graph TD; DS[Dampening Solution] --- W[Water]; DS --- F2["“2in1” Fountain Solution"]; W --- W_P["89% - 92%"]; F2 --- F2_P["8% to 11%"];
```

**Water**

89% - 92%

**“2in1” Fountain Solution**

8% to 11%

# "2in1" Fountain Solution

A Unique Product to Replace Conventional Printing Chemistry



## "2in1" Fountain Solution

replaces fountain and alcohol components in the dampening system on sheetfed, commercial web, forms, envelope and metal decorating presses

# Dampening System

An offset printing press has a dampening system to support the offset printing process.



The circulating liquid is called a dampening solution which consists of a mixture of alcohol (8 to 12%), fountain solution (2 to 4%) and the balance water. The system is generally chilled to cool the press and reduce vaporisation of the alcohol.

# Meeting the Worlds Tough Demands on Printers today.

- This means being smarter than your opposition.
- When "2in1" is installed the benefits for the company are endless.
- Lifting up the performance of a company by using this fount is achieved with ease.

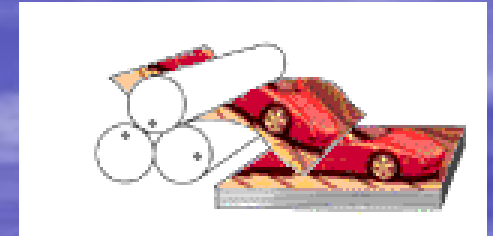


# Offset Printing

Offset lithography is the workhorse of printing. Almost every commercial printer does it. The quality of the final product is often due to the knowledge and expertise provided by the printer

Offset lithography works on a very simple principle: ink and water don't mix. Images ( words and art work) are exposed on to the plates, which are in turn dampened first by water (combination water, fount and alcohol), then ink. The ink adheres to the image area, the water to the non-image area. Then the image is transferred to a rubber blanket, and from the rubber blanket to paper. That's why the process is called "offset" -- the image does not go directly to the paper from the plates, as it does in gravure printing.

# Installing 2in1



- After you have filled in the top part of the form you will start to get a picture of how the present situation the press has been running.
- 2in1 is very simple to run and takes the press into a performance level that has never been seen before.
- Describe the benefits to the customer and as always they first mention price.
- The cost is only a small factor in comparison to all the benefits a company can gain in this ever growing fierce market place.

# Proven Installations in Today's Giants

With simple procedure checks you can install "2in1" with ease. Note the following.



Record the fount in use

What percentage of fount dosed at

Alcohol % set at and temperature

Take a look at the water dwells at idle speed

Measure the pH and conductivity

Use a Hydrometer and Temperature gauge

Beware of foaming lifting Hydrometer to give you a false reading

# Setting up Sheetfed Press

- Most important deal with the press operator as he is the responsible person who will ultimately keep the your product on the press
- Show press operator the benefits of "2in1" fountain solution to him



***Offset Printing.***

# Press Setup for Trial

1. Wash and deglaze inking rollers – reset if necessary.
2. Wash and deglaze dampening rollers – reset if necessary.
3. Clean and flush the dampening system
4. Charge system with clean water and re-circulate.
5. Bring down the the temperature of the water to 8 degrees Celsius.
6. Add the "2in1" into the reservoirs to achieve 11% reading on hydrometer.
7. Dose at "2in1" at 10%.

# Settings on the Press

1. Let dampening solution circulate through system
2. Turn water to settings down 20%
3. Turn ink settings down 10%
4. Start the trial

Remember do not rely on the press settings for temperature and dosing, do your own tests with thermometer and hydrometer

# Some Useful Tips

- Check edges of each plate cylinder to see that the sides between press and plate are not shimmering – if so is a good indication water can come down further
- Check dampening system reservoir with hydrometer and adjust dose if necessary to 10%
- Check temperature with alcohol thermometer a reading of 8 degrees is ideal

# Some Additional Benefits



- Less down time on press as eliminates necessity to clean blankets
- "2in1" fountain solution cleans dampening system



# “2in1” Fountain Solution



Comes in two sizes

25 liter clear white plastic containers

210 liter opaque blue plastic drums

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**Thank you for your participation in  
this presentation**

**BM Management cc**

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Importer and Australasian Agent

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