

**DAGATRON®**



# **Auto Stainer & Reagents**

Dagatronics Corporation  
[www.dagatron.com](http://www.dagatron.com)

## AT-2000 Series Single Auto Stainer



AT-2000G **GRAM**  
 AT-2000F **Fluorescence**  
 AT-2000Z **Ziehl-Neelsen**  
 AT-2000K **Kinyoun**  
 AT-2000H **Hematology**

### Simplicity

Just need to set desired Q'ty and start the staining cycle. All of staining process can be controlled by program. It provides reproducibility by controlling all phase of Stain cycle precisely.

### No Cross Contamination

Available to supply clean and fresh reagent on slides in every staining process.  
 Prevent cross-contamination between slides by fitting slides on independent individual space in slide tray.  
 Prevent contamination between reagents by using independent individual injection nozzle.

### Easy Cleaning and Reagent level monitoring

Designed to clean Tray, Nozzle, Pump and Valve easily.  
 The reagent level monitoring function assures to remove wrong stain by lower level of reagent.

### Heating system for Ziehl-Neelsen hot staining method(AT-2000Z)

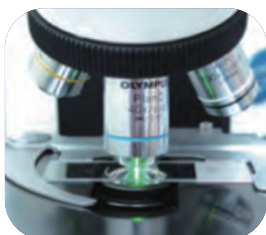
The automatic heating function is built in to stain it with heating.  
 Temperature in the tray can be controlled. Duration and level of temperature can be preprogrammed.



## ※ Specification

Model	GRAM AT-2000G	AT-2000F Fluorescence	Ziehl_Neelsen Kinyoun AT-2000Z/AT-2000K	AT-2000H Giemsa, MGG
<b>Slide Tray Capacity</b>	1 to 10 slides (1 to 20 slides by adding Optional tray) Ziehl-Neelsen: Available 1 to 10 slides only			
<b>Tray Rotation Speed</b>	Stain Mode : Approx. 6RPM / Stain DRY Mode : Approx. 260RPM / DRY Mode : Approx. 200RPM			
<b>Display</b>	4 Line by 20 character alpha-numeric LCD dot-matrix			
<b>Key Button Controls</b>	6 Mode Key(Stain, Prime, Clean, Dry, Reset, Slide up/down) 6 Function selection			
<b>Used Reagent/ Consumption</b>	Crystal Violet Gram-Iodine Acetone Alcohol Safranin  1.2ml~2.2ml	Auramine-Rhodamine (Auramine-0) Acid Alcohol Potassium Permanganate  1.2ml~2.2ml	Carbol Fuchsin Acid Alcohol Methylene blue  1.2ml~2.2ml	Wright-Giemsa Reagent Wright Reagent MGG Reagent Phosphate Buffer  1.2ml~2.2ml
<b>1 Cycle Stain Time (Typical)</b>	10 slides in 7min . 20 slides in 13min. (Option)	10 slides in 11min . 20 slides in 17min. (Option)	10 slides in 12min . 20 slides in 18min. (Option)	10 slides in 7min . 20 slides in 11min. (Option)
<b>Dimensions</b>	480(W) x 445(D) x 265(H) mm			
<b>Clearance Height (Lid open)</b>	Max. 565mm (Open door)			
<b>Weight</b>	Approx. 20kgs			
<b>Electrical Requirements</b>	100-240VAC ( Auto selection)@50 to 60 Hz			
<b>Power Consumption</b>	Max. 800 Watts (Heating mode in Ziehl-Neelsen) / Max. 50 Watts (Normal)			
<b>Drain Connection</b>	Nipple on rear Panel			
<b>Safety</b>	Lid interlock : Lid must be closed, and is locked down during operation			
<b>Standard Accessories</b>	5L Water bottle(1), Reagent Container(2), Reagent Container Cable(2), Power cord(1), Drain hose(1), Reagent connection Tube(2set), User's manual(1), Quick intallation and user's guide(1), Spare fuse(1), Carbon filter(5), Acryl cover(1)			
<b>Optional Accessories</b>	Additional slide tray for 10 slides			

※The specifications and design can be changed for improvement without notice.



## AT-3000 Series Multi & Dual Stainer



AT-3001 **Ziehl-Neelsen / Kinyoun / Fluorescence**

AT-3002 **GRAM & Ziehl-Neelsen**

AT-3003 **GRAM & Fluorescence**

AT-3004 **GRAM & Hematology**

### Simplicity

Just need to set desired Q'ty and start the staining cycle. All of staining process can be controlled by program. It provides reproducibility by controlling all phase of Stain cycle precisely.

### No Cross Contamination

Available to supply clean and fresh reagent on slides in every staining process.

Prevent cross-contamination between slides by fitting slides on independent individual space in slide tray.

Prevent contamination between reagents by using independent individual injection nozzle.

### Easy Cleaning and Reagent level monitoring

Designed to clean Tray, Nozzle, Pump and Valve easily. The reagent level monitoring function assures to remove wrong stain by lower level of reagent.

### Heating system for Ziehl-Neelsen hot staining method(AT-3001, 3002)

The automatic heating function is built in to stain it with heating. Temperature in the tray can be controlled. Duration and level of temperature can be preprogrammed.

### Available to stain for Ziehl-Neelsen, Kinyoun and Fluorescence (AT-3001)

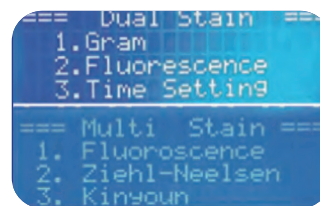
Can be used for Ziehl-Neelsen, Kinyoun and Fluorescence stainer just by simple selection and it can be available to obtain accurate and precision stain.

### Available to stain for GRAM and Hematology (AT-3004)

Can be used for GRAM and Hematology stainer just by simple selection and it can be available to obtain accurate and precision stain.

### Available to stain for GRAM and Ziehl-Neelsen or GRAM and Fluorescence (AT-3002, AT-3003)

Can be used for GRAM and Ziehl-Neelsen or GRAM and Fluorescence stainer just by simple selection and it can be available to obtain accurate and precision stain.

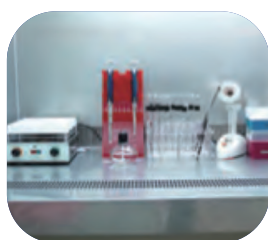


## Feature

Common Features	<ul style="list-style-type: none"> <li>• No cross-contamination in all of process.</li> <li>• Reduction in labor costs.</li> <li>• Easy cleaning system to clean tray.</li> <li>• Checking and Warning for lower level of reagents.</li> <li>• Minimize personal variation during staining.</li> </ul>
AT-3001	<ul style="list-style-type: none"> <li>• Available to stain for Ziehl-Neelsen, Kinyoun and Fluorescence.</li> <li>• Stain and dry up to 10 slides(20 slides with optional tray) in 15~18 minutes.</li> <li>• Heating system for Ziehl-Neelsen staining.</li> </ul>
AT-3002, AT-3003	<ul style="list-style-type: none"> <li>• Available to stain for GRAM and Ziehl-Neelsen or GRAM and Fluorescence.</li> <li>• Stain and dry up to 10 slides (20 slides with optional tray) in 13~18 minutes.</li> <li>• Heating system for Ziehl-Neelsen staining. (AT-3002 only).</li> </ul>
AT-3004	<ul style="list-style-type: none"> <li>• Available to stain for GRAM &amp; Hematology (MGG or Wright)</li> <li>• Stain and dry up to 10 slides (20 slides with optional tray) in 13~18 minutes.</li> </ul>

## ※ Specification

Model	AT-3001 Ziehl-Neelsen / Kinyoun & Fluorescence	AT-3002 GRAM & Ziehl-Neelsen	AT-3003 GRAM & Fluorescence	AT-3004 GRAM & Hematology
Slide Tray Capacity	1 to 10 slides (1 to 20 slides by adding Optional tray ) Ziehl-Neelsen: Available 1 to 10 slides only			
Tray Rotation Speed	Stain Mode : Approx. 6RPM / Stain DRY Mode : Approx. 260RPM / DRY Mode : Approx. 200RPM			
Display	4 Line by 20 character alpha-numeric LCD dot-matrix			
Key Button Controls	6 Mode Key (Stain, Clean, Dry, Reset, Slide up/down) 6 Function Key (Time setting, Prime)			
Used Reagent/ Consumption	Carbol Fuchsin Acid Alcohol Methylene blue  Auramine-Rhodamine (Auramine-0) Acid Alcohol Potassium Permanganate  1.2ml~2.2ml	Crystal Violet Gram-Iodine Acetone Alcohol Safranine  Carbol Fuchsin Acid Alcohol Methylene blue  1.2ml~2.2ml	Crystal Violet Gram-Iodine Acetone Alcohol Safranine  Auramine-Rhodamine (Auramine-0) Acid Alcohol Potassium Permanganate  1.2ml~2.2ml	Crystal Violet Gram-Iodine Acetone Alcohol Safranine  Wright-Giemsa MGG Phosphate Buffer  1.2ml~2.2ml
1 Cycle Stain Time (Typical)	10 slides in 11min . 20 slides in 18min. (Option)	10 slides in 7min . 20 slides in 18min. (Option)	10 slides in 7min . 20 slides in 17min. (Option)	10 slides in 7min . 20 slides in 18min. (Option)
Dimensions	480(W) x 445(0) x 265(H) mm, Clearance Height(Lid open): Max. 565 mm			
Weight	Approx. 20kgs			
Electrical Requirements	100-240VAC ( Auto selection)@50 to 60 Hz			
Power Consumption	Max. 800 Watts (Heating mode in Ziehl-Neelsen) / Max. 50 Watts (Normal)			
Safety	Lid interlock : Lid must be closed, and is locked down during operation			
Standard Accessories	5L Water bottle(1), Reagent Container(2), Reagent Container Cable(2), Power cord(1), Drain hose(1), Reagent connection Tube(2set), User's manual(1), Quick intallation and user's guide(1), Spare fuse(1), Carbon filter(5), Acryl cover(1)			
Optional Accessories	Additional slide tray for 10 slides			



## Reagents for Auto Stainer



### ZR-2A Ziehl-Neelsen & Kinyoun

#### Carbol-Fuchsin / Acid Alcohol / Methylene Blue

Ziehl-Neelsen stain with Ziehl-Neelsen Staining Kit allows to detect mycobacteria, also called AFB(Acid-Fast-Bacilli, T.B.) according to a WHO recommended technique.

Result : T.B - Red , Back Ground - Blue



### FR-2A, FR-2B Fluorescence

#### Auramine / Acid Alcohol / Pot. Permanganate

Fluorescence stain with Fluorescence Staining Kit allows to detect mycobacteria, also called AFB(Acid-Fast-Bacilli, T.B.) according to a WHO recommended technique.

Result : T.B - Reddish-yellow , Back Ground - Dark green



### GR-2A GRAM

#### Crystal Violet / GRAM Iodine / Acetone Alcohol / Safarane

Gram stain with Gram Staining Kit allows to detect Gram positive and Gram negative according to a WHO recommended technique. Result : GRAM positive - Violet , GRAM negative - Pink

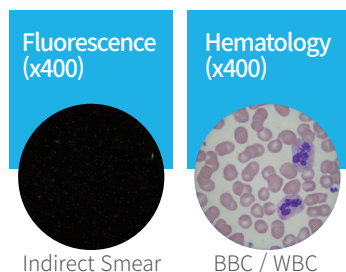
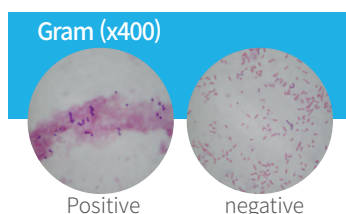
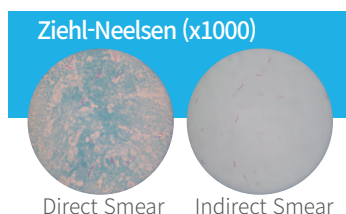


### HR-2A Hematology

#### Wright / Phosphate Buffer

Hematology stain with Wright Staining Kit allows to differential RBC, WBC and platelet.

## Staining Results



## Staining methods and available specimens

Staining Method	Specimens	Observed Micro organisms
Ziehl-Neelsen	Sputum, Urine, Blood, CSF, Body Fluid, Pus	T.B.(Tubercle Bacillus)
Fluorescence		
Kinyoun		
GRAM	Urine, Blood, Sputum, Body Fluid, Stool, Pus	GRAM Positive: Diptheria, Actinomyces, Tetanus bacillus, Pneumococcus, Staphylococcus, Anthrax bacillus ...  GRAM Negative: Salmonella, Dysentery bacillus, Typhoid bacillus, Colon bact erium, Vibrio cholerae, Pest, Gonococcus ...
Wright	Blood, Bone Marrow	Q'ty and shape of WBC, RBC/Shape of Platelet
MGG		

# We have What you need for staining GRAM, Acid Fast Bacilli(T.B.) & Hematology

The DAGATRON Auto Stainer provides fast and easy staining process by automated system control. This new innovated stainer features advanced functions and performances over manual staining or automated dip-type stainers, include simplicity and convenience.

## Introduction of Company

We, DAGATRONICS CORPORATION, are a specialist for manufacturing and exporting of Test & Measuring instruments and Auto Stainer for AFB, GRAM and Hematology and Auto Slide Smear System and Air cleaning products and related consumable accessories.

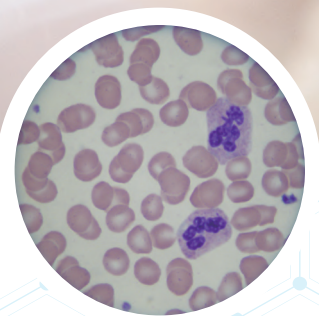
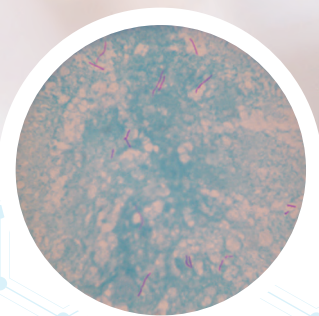
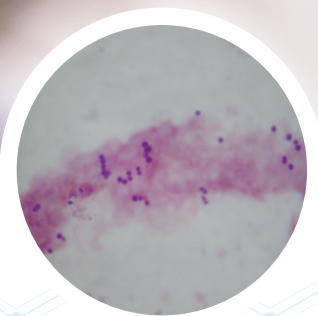
Our products already have been using in many well known University hospitals and pubic health centers in Korea and we are exporting to several countries and It has already good reputation from the market. Particularly, as specialist in this field we are running a well-organized production system for the small quantities of various models with best quality, by which you would enjoy very pleasant services from us.



## Patents



**DAGATRON®**



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