



Spraying Systems Co.
THE WORLD LEADER IN SPRAY TECHNOLOGY

The background features a large, faint circular graphic containing several spray patterns emanating from nozzle-like shapes at the bottom. The spray patterns consist of multiple thin lines radiating upwards and outwards, creating a fan-like effect. The overall color scheme is dark blue and grey.

Optimizing Resin, Wax and Release Agent Effectiveness with PanelSpray Technology

Presented By
Brian Valley – Spraying Systems Co.



SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

FLAT SPRAY NOZZLES



SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

FULL CONE NOZZLES



SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

HOLLOW CONE NOZZLES



SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

FINE SPRAY NOZZLES



SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES



SPRAY GUNS



SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

AIR CONTROL NOZZLES




SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

TANK CLEANING



SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

SPRAY NOZZLE ACCESSORIES



SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

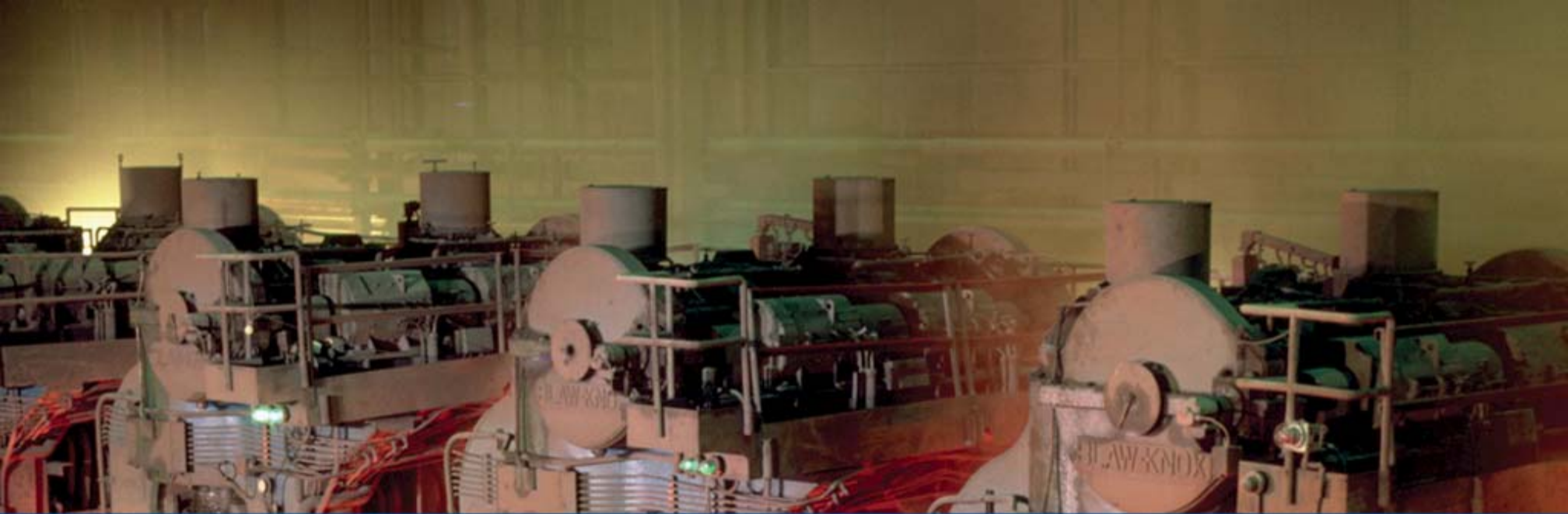
AIR ATOMIZING NOZZLES



SPRAYING SYSTEMS CO IS:
UNRIVALED IN OUR APPLICATIONS EXPERTISE IN
CHEMICAL AND PETROCHEMICAL PROCESSING


The image shows two tall, brick industrial smokestacks against a clear blue sky. Both stacks are emitting thick, white plumes of smoke that rise and spread across the upper portion of the frame. A horizontal blue banner is superimposed over the middle of the image, containing white text.

SPRAYING SYSTEMS CO IS:
UNRIVALED IN OUR APPLICATIONS EXPERTISE IN
POLLUTION CONTROL



SPRAYING SYSTEMS CO IS:
UNRIVALED IN OUR APPLICATIONS EXPERTISE IN
STEELMAKING



A large-scale industrial scene in a paper mill. A massive roll of paper is being processed, with a bright red section at the top and a large, textured white section below. The machinery is complex, with various rollers, pipes, and structural elements. In the foreground, two men in blue shirts and khaki pants are standing on a metal walkway, looking at the paper roll. One man is pointing towards the paper. The lighting is bright, highlighting the texture of the paper and the metallic surfaces of the machinery.

SPRAYING SYSTEMS CO IS:
UNRIVALED IN OUR APPLICATIONS EXPERTISE IN
PULP AND PAPERMAKING




SPRAYING SYSTEMS CO IS:
UNRIVALED IN OUR APPLICATIONS EXPERTISE IN
PHARMACEUTICAL PROCESSING



SPRAYING SYSTEMS CO IS:
UNRIVALED IN OUR APPLICATIONS EXPERTISE IN
SPRAY DRYING





If you ain't
first...

You're last!!

FOUNDERS FRED WAHLIN AND SVEND BRAMSEN,
DANISH IMMIGRANTS



1949 COMPANY CONTINUES ITS GROWTH AND EXPANTION





DISCOVER HOW SPRAY TECHNOLOGY TOUCHES OUR LIVES
SPRAY TECHNOLOGY DAY | 23RD JUN 2017

SPRAY RESEARCH LABORATORY






LABORATORY EQUIPMENT:
LASER DIFFRACTION PARTICLE ANALYZER



LABORATORY EQUIPMENT:
PHASE DOPPLER PARTICLE ANALYZER



LABORATORY EQUIPMENT: LASER SHEET IMAGING

The background features a large, light gray circular graphic containing three stylized spray nozzles. Each nozzle is shown from a top-down perspective, with multiple lines radiating outwards to represent the spray pattern. The nozzles are arranged in a horizontal row, with the central one being slightly larger and more prominent. The overall aesthetic is technical and industrial.

SPRAYING SYSTEMS CO:
THE WORLD LEADER
IN SPRAY NOZZLES

AutoJet[®] Systems

AUTOJET® MODEL 2008 PWM SPRAY CONTROL
PANEL



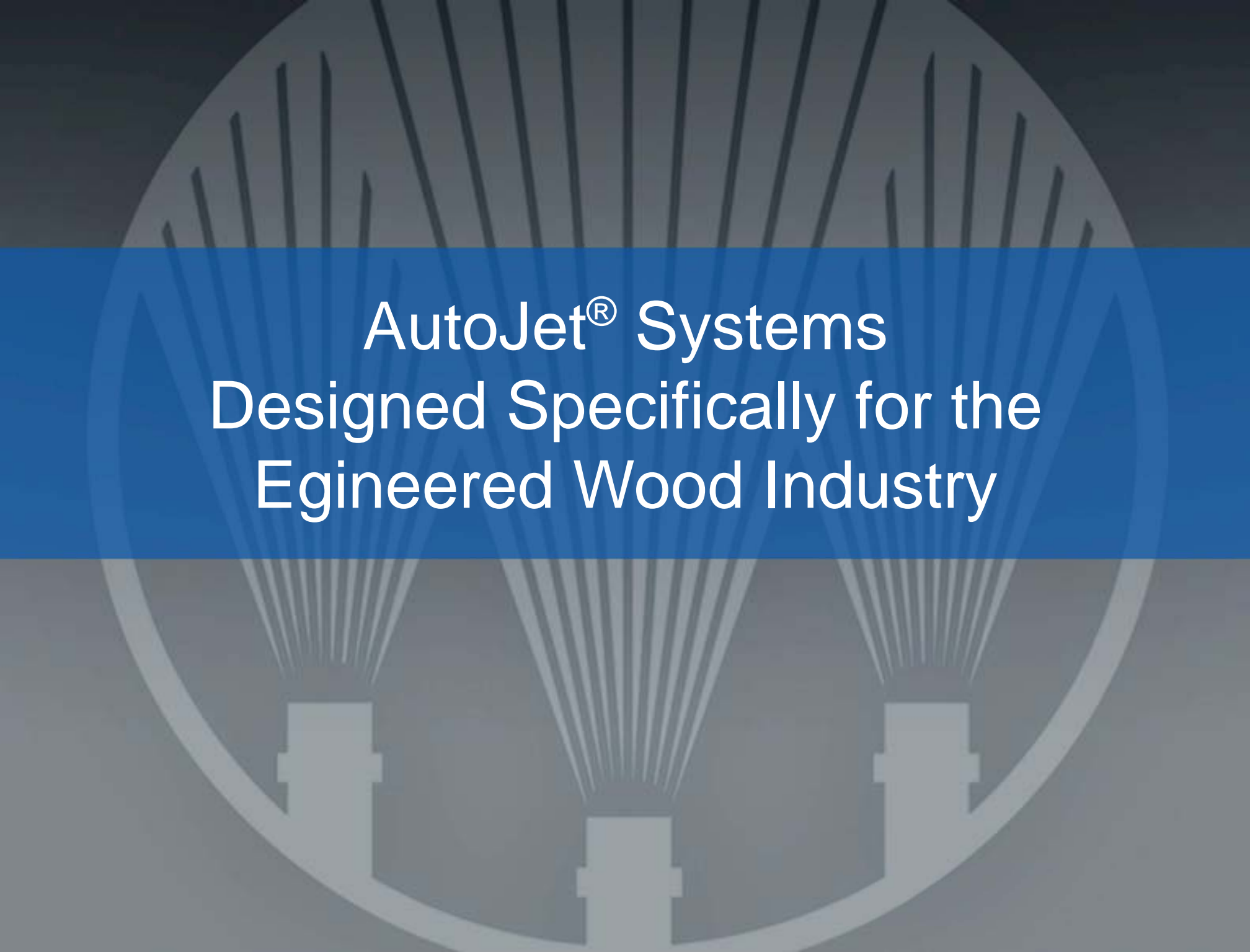


AUTOJET® MODEL 1550 MODULAR SPRAY SYSTEM





AUTOJET® MODEL 2250 MODULAR SPRAY SYSTEM

The background features a large, faint circular logo. It consists of a central vertical pipe with three horizontal pipes branching out from it. From each of these horizontal pipes, a fan of lines radiates upwards, resembling a spray or a fan of air. The entire logo is rendered in a light gray color against a dark blue background.

AutoJet[®] Systems
Designed Specifically for the
Engineered Wood Industry

PanelSpray – Suite of Systems

- PanelSpray-MS (Moisture Spray)
- PanelSpray-RA (Release Agent)
- PanelSpray-WX (Wax Spray)
- PanelSpray-RS (Resin Spray)
- PanelSpray-NM (Nail Marking)



PanelSpray-MS

- Common problems with “homemade” equipment:
 - Clogged nozzles
 - Adjusting Pressure to vary flow produces large changes in spray characteristics (spray angle, drop size, distribution and impact.
 - Dripping
- Solutions to those issues using PanelSpray Systems:
 - PalsaJet guns allow you to use much larger orifices (even at lower flow rates!)
 - PanelSpray headers run at one consistent pressure (same spray angle, drop size, velocity and uniform distribution across the mat)
 - PalsaJet Spray guns have positive, drip-free shut off right at the tip



PanelSpray-MS

- AutoJet 2250+ Controller
- Regulates and delivers customer supplied liquid (water)
 - Automatic Air piloted liquid regulation
- Open or Closed loop flow
 - Automatically adjusts duty cycle to match actual and theoretical flow rates
- Independent Application Rate
 - 2 Channel System
 - For customers who need different application rates on their mats, cauls or belts



PanelSpray-RA

- Common problems in the field
 - Inaccurate or inconsistent dosing
 - insufficient mixing, or settles out
 - Not knowing there's a problem with the release agent application system until it's too late (stuck press)
 - Limited turndown ratio (wind up over or under applying)
- Solutions with PanelSpray
 - Flow meter measured water and chemical for precise concentration
 - Continuous recirculation
 - System integrity detects a reduction of flow in at nozzle in seconds, and alerts operator of its exact location
 - PWM technology allows for very large turndown (up to 20:1)



PanelSpray-RA

- Complete Turnkey Solution
- AB PLC / AutoJet Controls
 - AutoJet 2008 Gun Driver Modules
- Auto Refilling
 - Dual tank design allows independent concentration control
- Independent Application Rate
 - For customers who need different application rates on their mats, cauls or belts



ENGINEERED WOOD – DISTRIBUTION TESTING EQUIPMENT



Spraying Systems Co.
Experts in Spray Technology

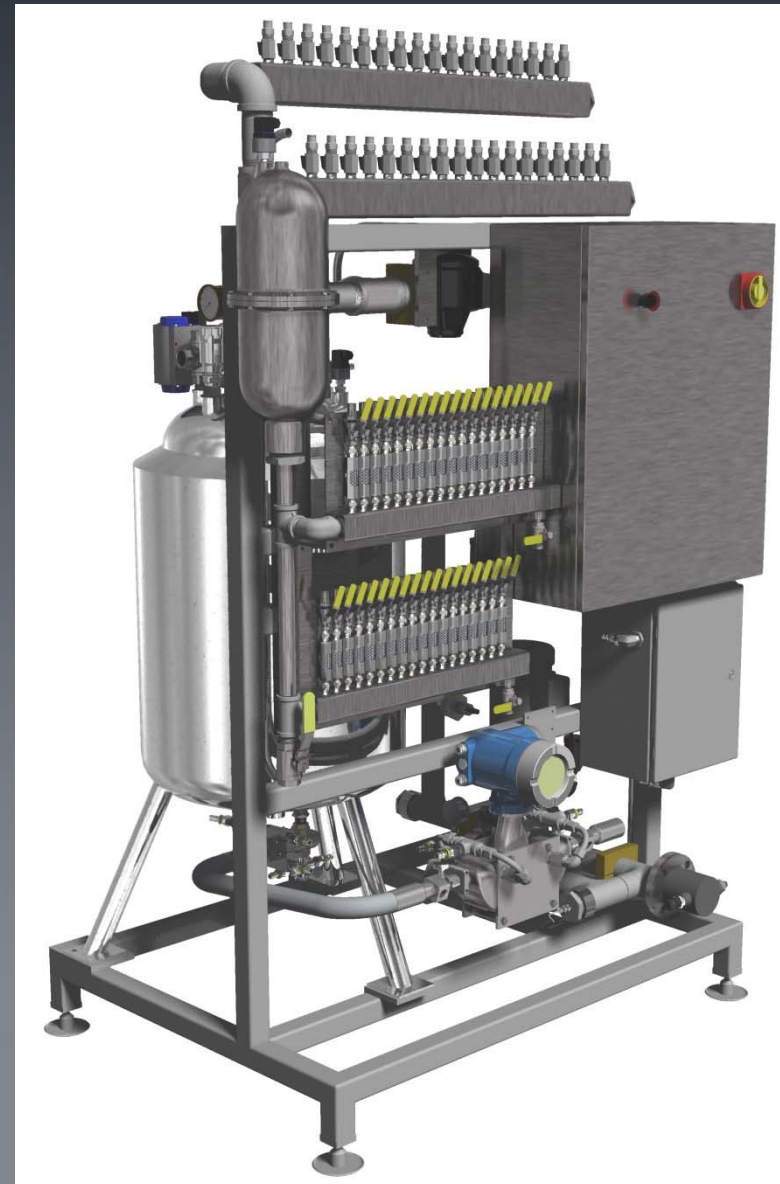
PanelSpray-WX/RS

- Common problems in the field
 - Uneven, inconsistent or insufficient heating.
 - Changing drop size or coverage, when flow rates change even slightly.
 - Limited turndown ratio, over or under applying
- Solutions with PanelSpray
 - Continuously recirculating, heated water jacket system maintains accurate temperature all the way to the tip
 - Flow adjusted using PWM technology. Pressure, coverage and distribution remain consistent.
 - PWM flow control allows for 10:1 turndown to accommodate changes in required wood flow.



PanelSpray-WS/RS

- Precision Temperature Control
 - Heat jacketed tank, hoses and guns
 - (insulate lines after installation)
- Precision Spray Control
 - Maintain Add On Rate regardless of wood throughput changes (closed loop flow)
 - Even Uniform Coverage
- Visual Flow Verification
 - Assure each gun is flowing via sight glass flow indicators



PanelSpray-NM

- Complete Turnkey Solution
 - Dilutes concentrated ink to desired mixed ratio
 - Recirculated to prevent settling
 - Auto Refilling
 - Dual tank design allows hours/days to change ink tote when empty
 - Multiple Gun Choices
 - Air Actuated Guns
 - Electrically Controlled



What will PanelSpray Equipment do for you?

- **MS-Allow you to precisely control surface moisture**
 - Quicker Press Times, Improve surface finish (reduce post processes)
- **RA-Allow you to precisely and reliable apply release agents.**
 - Prevent boards from sticking, reduce chemistry usage
- **RS-Allow you evenly and accurately apply resin**
 - Maintains even, uniform coverage, even w/large changes in wood flow
- **WX-Allow you to hydraulically apply waxes requiring heating**
 - Maintains wax temp at the way to tip, PWM offer large turndown ratio
- **NM-Allow you to reliablably and accurately line mark boards**
 - Keeps ink in suspension, clean out needle assures clear nozzle passage



What does ultimately mean for you?

- Better Quality Products!
- Reduce Manufacturing and Maintenance Costs!
- Reduce Chemical Consumption! (Resin, Wax, Release)
- **SAVES YOU \$\$\$**



The background features a large, faint circular graphic containing three spotlights. Each spotlight is positioned at the bottom and emits a fan of light rays that spread upwards, filling the circle. The spotlights and their beams are rendered in a light gray color against a dark gray background.

QUESTIONS??

THANK YOU FOR YOUR PATICIPATION