# Spraying and humidification systems for the automotive sector

Optimizing your manufacturing processes





#### Manufacturer of spraying and humidification systems

IKEUCHI worldwide

Automotive industry

Painting Coating line

Our solutions

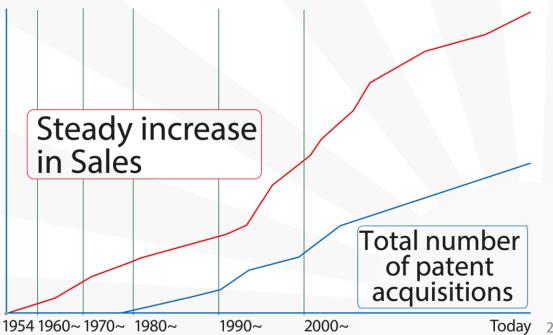


- Founded in 1954
- Offering over 42,000 products
- 500 employees
- Established subsidiaries worldwide



#### Growing company

- 35 patent acquisitions\*
- 53 trademarks\*







## **IKEUCHI** Manufacturer of spraying and humidification systems

IKEUCHI worldwide Markets

Automotive industry

Painting.

Coating

Food

Agriculture,

livestock

Automotive



Aviation



Electronics Environment

industry

Healthcare



Paper & pulp, printing Pollution control

Steel industry

line





































# IKEUCHI Solution provider



<u>Automotive</u> industry

Painting /
Coating
line

Our solutions



#### SOLUTION



Analysis



Products



Engineering advices



Services



#### IKEUCHI worldwide

Automotive industry

Painting. Coating line

Our solutions

#### IKEUCHI worldwide





Tianjin, China

Suzhou, China

Shenzhen, China

Amsterdam, The Netherlands



Istanbul, Turkey

Bahrain



Hanoi Factory, Vietnam

Bangkok, Thailand

Jakarta, Indonesia



Shanghai, China



Cincinnati, USA



Japan

Taipei, Taiwan









#### **Domestic Sites**

Osaka Tokyo

🌑 Saitama

- Nagoya
- Hiroshima
- Kure Factory



Yokohama

Fukuoka Sendai

Nishiwaki

Factory





# Automotive industry

IKEUCHI worldwide

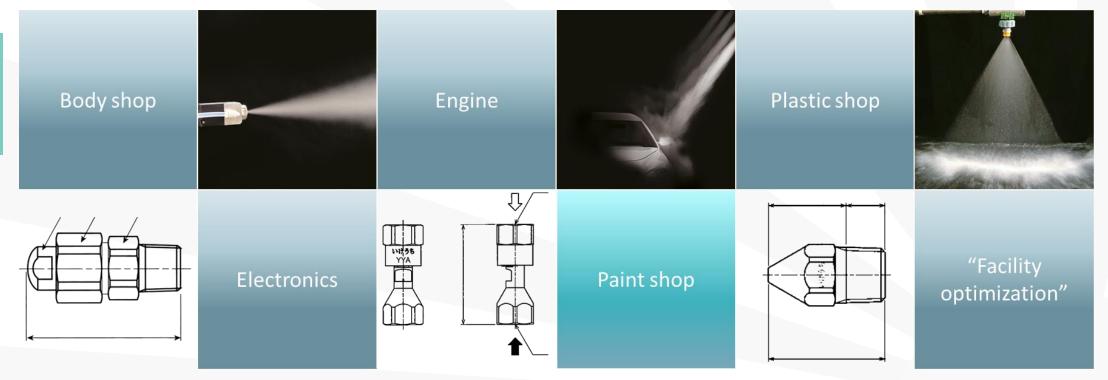


Our solutions for automotive manufacturing processes

Automotive industry

Painting / Coating line

Our solutions







<u>IKEUCHI</u> worldwide

<u>Automotive</u> industry

> <u>Painting /</u> Coating line

Our solutions

Painting / Coating Line

Pre-treatment

During





 $MOMOJet_{\mathbb{R}}$ 



VVEA



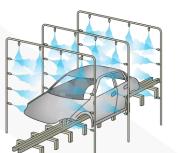
Sealer / Primer

Base coat

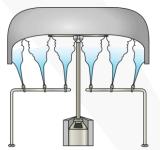
After oven

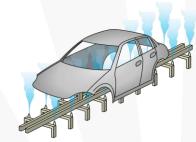
After oven

After oven



Auto Body Cooling Systems





Sanding

Top coat

Transport line

Buffer zone / Storage

During

On

In

**Dust control and humidification AKIMist®** 







#### Pre-treatment maintenance cost & water reduction

<u>IKEUCHI</u> worldwide

<u>Automotive</u> <u>industry</u>

Painting /
Coating
line

Our solutions



One touch





INVV

Higher chemical resistance





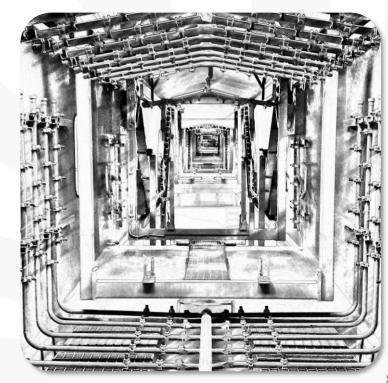








 Reduced maintenance time









#### <u>IKEUCHI</u> worldwide

<u>Automotive</u> <u>industry</u>

Painting /
Coating
line

**Our solutions** 

#### Pre-treatment maintenance cost & water reduction



- Self-cleaning nozzle
- No clogging 

   no maintenance
- Longer lifetime than plastic nozzles
- Easy to use

### Benefit:

 More effective and even washing (no diffused spray patterns)











#### Pre-treatment maintenance cost & water reduction

<u>IKEUCHI</u> worldwide

<u>Automotive</u> <u>industry</u>

Painting / Coating line

Our solutions



- Uniform distribution
- Pneumatic nozzle: smaller droplets with a higher impact



- Effective washing
- Decreased use of DI water
- Large turn-down ratio

#### **VVEA**







# Auto Body Cooling Systems: (Semi-) Dry fog

<u>IKEUCHI</u> <u>worldwide</u>

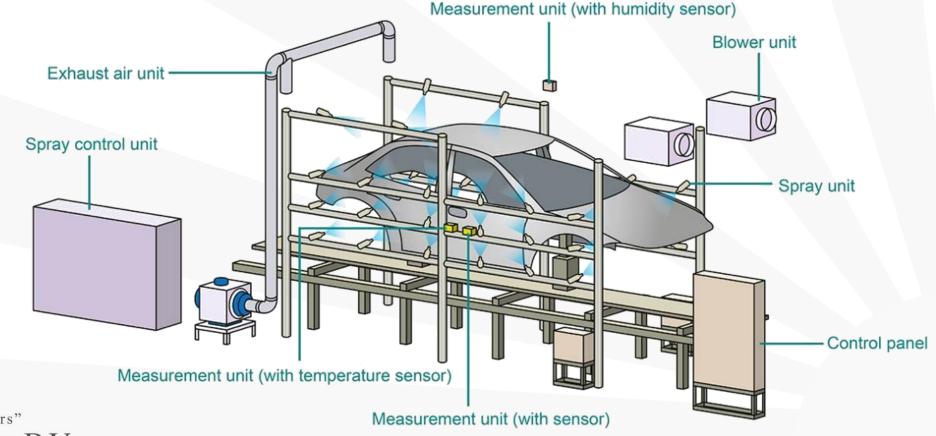
<u>Automotive</u> <u>industry</u>

> Painting / Coating line

Our solutions



Applications: Painting, coating, and sealer processes







# Auto Body Cooling Systems: (Semi-) Dry fog

<u>IKEUCHI</u> worldwide

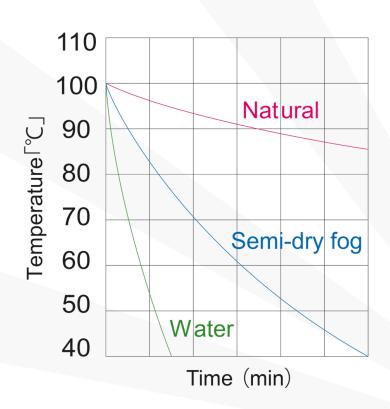
<u>Automotive</u> <u>industry</u>

Painting / Coating line

Our solutions

## Advantages:

- Water-based cooling
- Compact system
- Automated on/off systems
- Lower running costs
- Non-wetting solution



Natural cooling
Long waiting time

Semi-dry fog cooling Good product quality

Water cooling
Thermal cracking

# Auto Body Cooling Systems: (Semi-) Dry fog

IKEUCHI worldwide

<u>Automotive</u> industry

Painting / Coating line

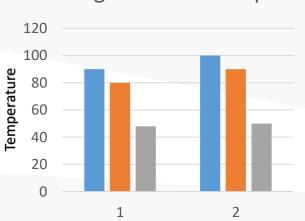
Our solutions

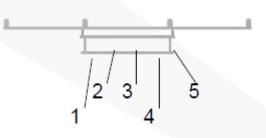


Benefits: Working environment cooled down by 5-10°C

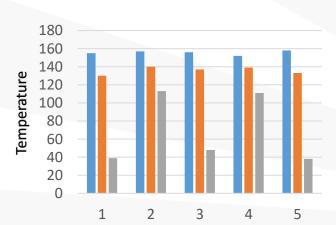


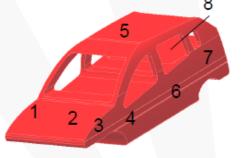
Cooling effect for bumper



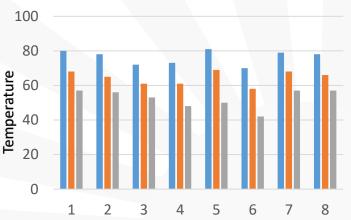


Cooling effect for conveyor





Cooling effect for car body











IKEUCHI worldwide

<u>Automotive</u> <u>industry</u>

Painting / Coating line

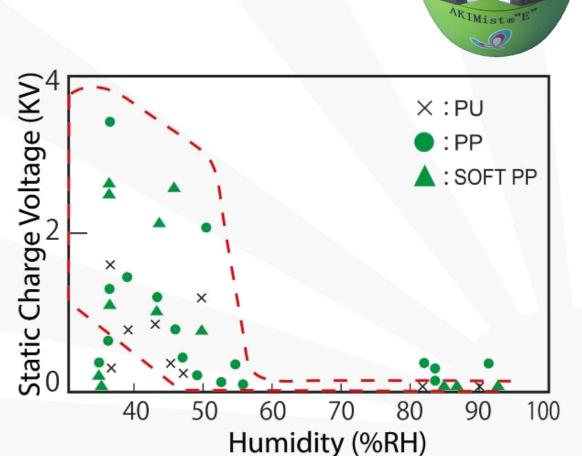
Our solutions

# Dust control & humidification: AKIMist<sub>®</sub>"E"



#### Applications:

- Dust suppression (e.g., during sanding process)
- Humidification to eliminate static charge







# Dust control & humidification: AKIMist®"E"

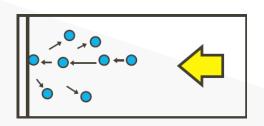
IKEUCHI worldwide Advantage:

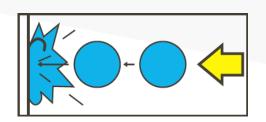
Dry fog → no wetting

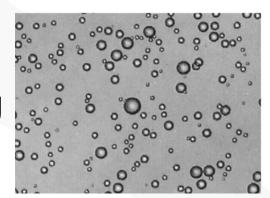
Automotive industry

Painting Coating line

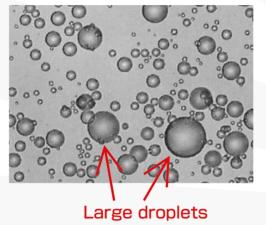
Our solutions

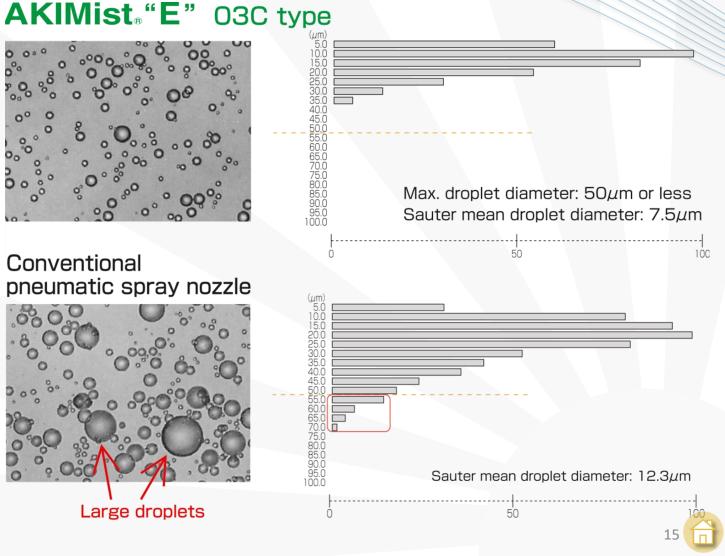














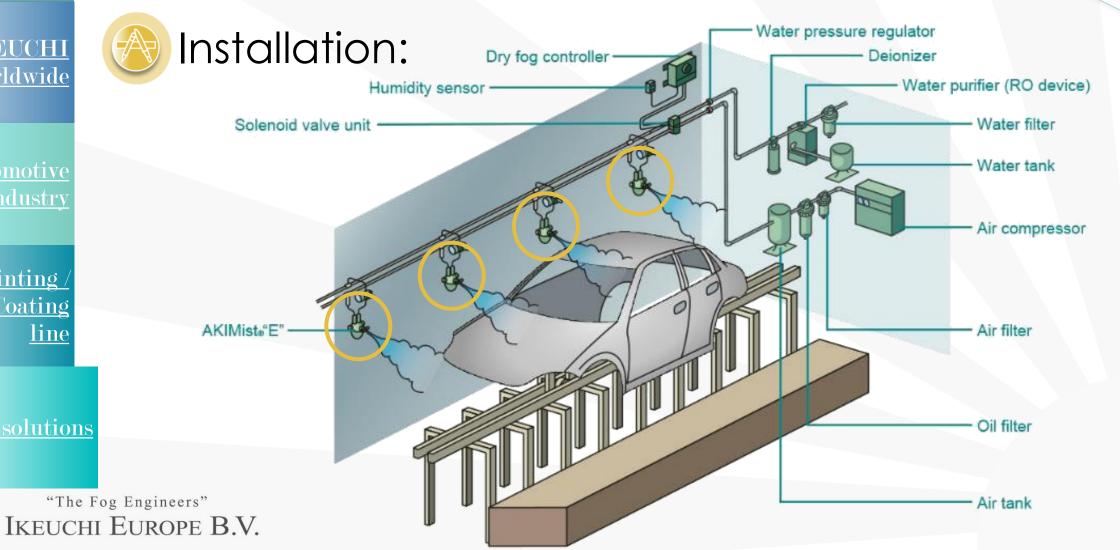
# Dust control & humidification: AKIMist®'E"

**IKEUCHI** worldwide

Automotive industry

Painting / Coating line

Our solutions





# Dust control & humidification: AKIMist®"E'



<u>Automotive</u> industry

Painting / Coating line

Our solutions



- Total dust-related defects reduced from 2% to 0.5%
  - Reduction by 40% of dust-related defects on bumpers
- Average number of spots/car reduced from 7 to 1
- Productivity increased by 4%
- Fish-eye defects resolved







