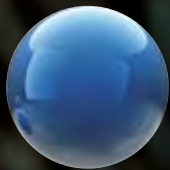
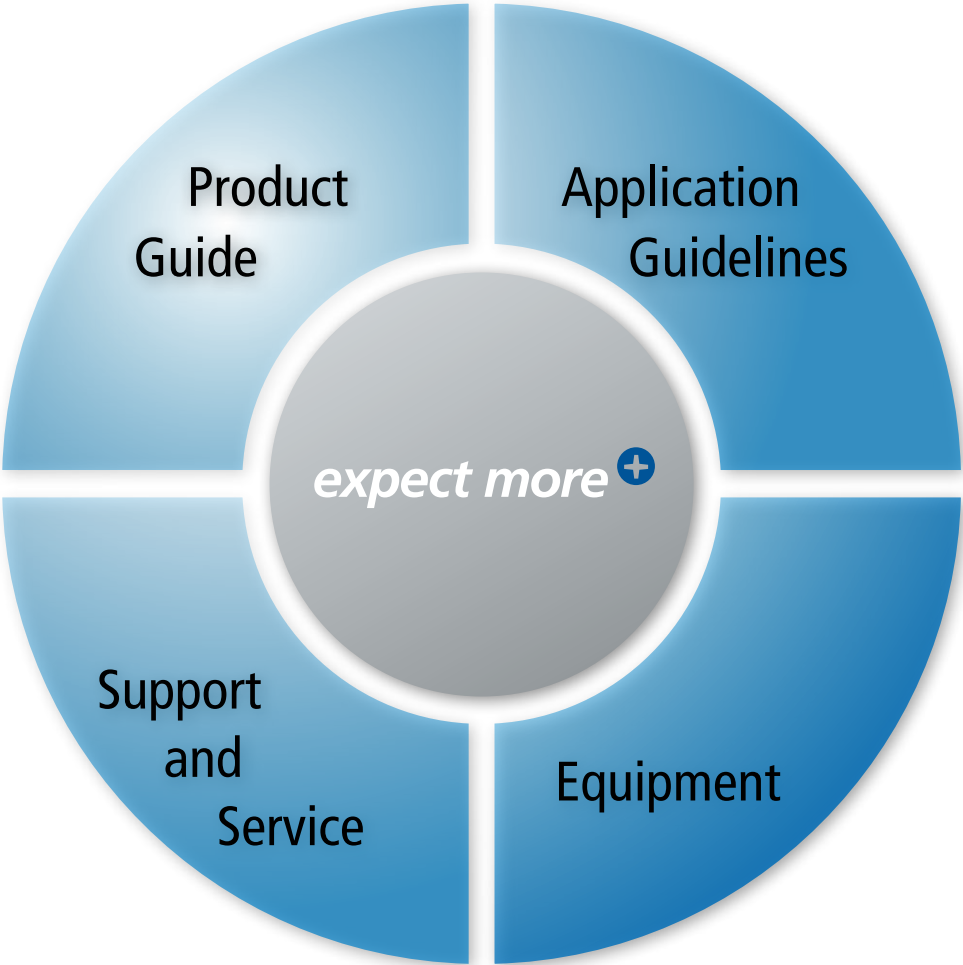


The Ardrox® AV World:  
Superior corrosion protection products, equipment  
and services for the aerospace industry.



**Chemetall**  
expect more+

**Your global partner  
for the aerospace industry**



# Contents

- 4 **Expect more from a leading global supplier of applied surface treatment technologies**
- 6 **Your one-stop supplier of approved and high-performing aerospace technologies**
- 8 **Airframe corrosion and Ardrox® AV products**
  - 8 What is corrosion?
  - 10 Corrosion never sleeps
  - 11 Prevention is better than cure
- 12 **Critical areas for aircraft corrosion**
  - Ardrox® AV CIC helps to protect all places where moisture can occur
- 14 **Application guidelines**
  - General application guidelines for Ardrox® AV products
- 16 **Practical advice**
- 18 **The Ardrox® AV product range**
- 22 **Equipment overview**
  - 22 ACS/LCS (pressure pot-system and spare parts)
  - 23 LCS wands
  - 24 LCS spare parts
  - 25 ACS wands
  - 26 ACS spare parts
  - 27 AAS (system and spare parts)
  - 28 AAS spray gun set
  - 29 AAS wands
  - 30 AAS spare parts
  - 31 Accessories, add-ons



# Expect more from a leading global supplier of applied surface treatment technologies



Chemetall Company Headquarters: Frankfurt am Main, Germany

As one of the leading global players, Chemetall focuses on surface treatment technologies in all their facets. Quality products and services are the prerequisite of our business success. However, at Chemetall, we know that it takes more than that to be a preferred global supplier.

The chemical treatment of metal surfaces is Chemetall's core competence. We base the focus of our worldwide activities on the development and implementation of customized technologies for cleaning, corrosion protection, sealing, and Non-Destructive Testing, as well as to improve paint adhesion and facilitate the forming and treatment of metals. Globally established technologies, e.g. **Oxsilan®**, **Gardobond®** and **Ardrox®**, are used in the most diverse market sectors from automotive to aerospace, from the appliance to architectural and construction industries. Over the past decades, Chemetall has been playing a leading role in shaping metal treatment.

## **In focus: value added for customers**

Good products and quality services are the prerequisites for a successful business. However, at Chemetall we believe that true success is based on a close and partnership-based global cooperation with our customers. We offer value added-technologies to enhance processes, combined with an excellent, globally organized technical service.



Largest surface treatment facility in the world (Jackson, MI, USA)

### **Globally active, locally based**

The global business activities of Chemetal are based on tradition and experience dating all the way back to the 19<sup>th</sup> century. Nowadays, Chemetal is one of the leading global players in surface treatment with its headquarters in Frankfurt am Main, Germany. With more than 2,500 employees, over 40 subsidiaries worldwide and 22 production sites, Chemetal is a financially strong and fast growing company with a long-term orientation, and we continue to aim high: We intend to strengthen our quality and innovation leadership even further. With sales and service teams, laboratories and warehouses at locations around the world, we are operating in close proximity to our customers.

### **Sustainability and quality**

It is our top priority to consistently implement environmental and occupational safety regulations and to continuously ensure the reliability of our production sites all over the world. We act responsibly towards society and the environment and consider them as important as our economic goals.

Benefit from Chemetal's long-standing global experience in your line of business and from our top-quality and eco-friendly technologies.

➤ More to read on [www.chemetal.com](http://www.chemetal.com)

# Your one-stop supplier of approved and high-performing aerospace technologies



As a leading global one-stop supplier for aerospace OEMs and maintenance companies, with its well-known Ardrex® and Naftoseal® brands, Chemetall offers sealants, NDT products, corrosion protection products, cleaners, pretreatment products and paint strippers for airframe, aircraft operation and aero-engine applications.

Whether you represent an OEM, a maintenance company or an airline, Chemetall can provide you with the optimum product based on our comprehensive understanding of the materials used in your industry and of the requirements of your applications. Cleaners and sealants as well as pretreatment, corrosion protection and non-destructive testing products and processes are available for manufacture, service, maintenance, overhaul and repair of airframes and aero-engines for military and civil aircraft including their components.

## **Approvals and quality**

Approvals and specifications are essential for the international aerospace industry. Our products cover thousands of global specifications and approvals. Chemetall is proud to offer you products which meet and frequently even exceed the requirements of most of the world's major aerospace standards. Our products are approved by all major aero-engine and aircraft manufacturers.

At Chemetall, you will find products and services designed to meet the specific requirements of the demanding aerospace standards – this is also underlined by an impressive range of certifications, among others the EN 9100 (equivalent to AS 9100 Rev C, JIS Q 9100).





### **Environmental commitment**

Chemetall's commitment to safeguarding the environment has led us to be one of the first suppliers to provide approved, safe, environmentally responsible solutions, e.g. chrome-free sealants, borate-free cleaners and azo-dye-free products approved for the aerospace industry. Our commitment has also gained us the ISO 14001 certificate for most of our subsidiaries.

### **Global presence, local support**

Dedicated aerospace experts around the world ensure global support combined with local presence for the specific needs of our aerospace customers.

### **Our technology portfolio**

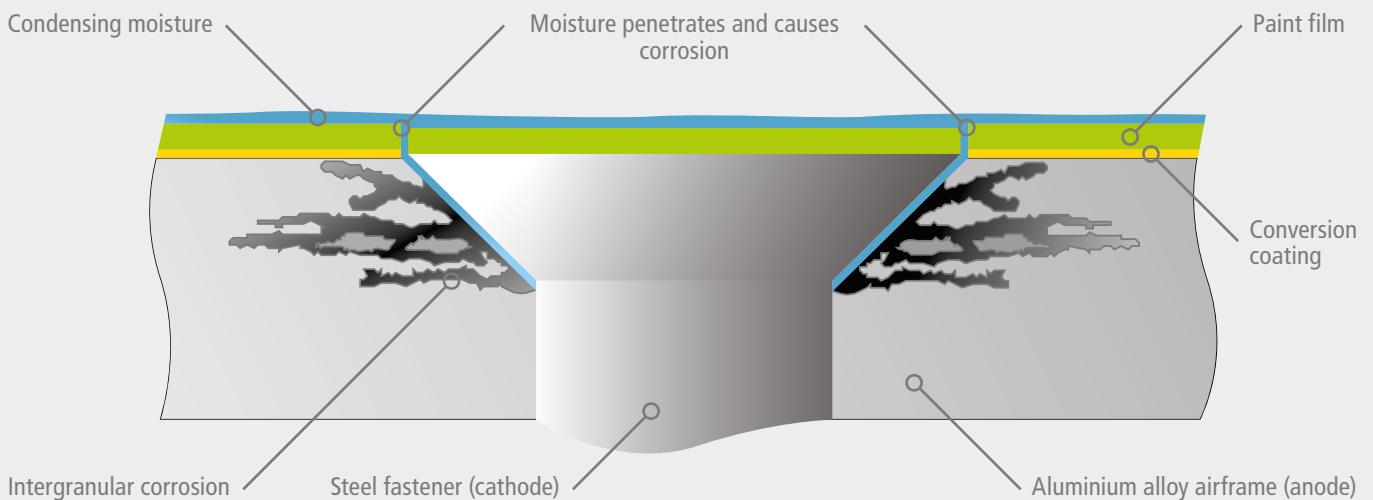
- Ardrox® Cleaners
- Ardrox® and Ardrox® AV Corrosion Protection Products
- Ardrox® Non-Destructive Testing (NDT)
- Ardrox® Paint Strippers
- Ardrox® Pretreatment
- Naftoseal® Aircraft Sealants, Sealant Removers

### **Expect more**

- Sustainable success due to excellent partnerships with OEMs, maintenance companies, approving authorities and government bodies worldwide
- Global presence and local expert support
- Comprehensive range of approvals for a wide range of applications
- All major quality certifications

# Airframe corrosion and Ardrox® AV products

## What is corrosion?



Corrosion mechanism of aluminium alloy adjacent to steel fastener

Corrosion is the destruction of metal by electro-chemical reaction with its environment. Three conditions must exist simultaneously for corrosion to occur:

- The presence of an anode and a cathode – for instance when two dissimilar metals are in close contact
- The presence of an electrolyte – usually this is water
- The presence of oxygen



The presence of an electrolyte (water) and oxygen is essential for starting the corrosion process. Water and oxygen from the atmosphere function as electrolytes to produce positive aluminium ions and free electrons. Water and oxygen bond to form hydroxide molecules that, in turn, bond with the aluminium ions and form the stable corrosion product aluminium hydroxide.

To stop or better prevent corrosion, it is necessary to break the corrosion cycle. Clearly, it would be very difficult to remove oxygen from the chain of events, and it is much easier to remove the presence of the electrolyte: water.



The airframe is made of various alloys of aluminium, steel, other metals and composites. During manufacture paints and sealants are used to protect the different kinds of metal and to exclude moisture from direct contact with the metal structure. The complex structure is assembled by drilling holes and using fasteners. It is inevitable that some areas of unprotected metal will be exposed to moisture. Additionally, protective treatments including paints and sealants can be damaged during construction of the airframe and during in-service operations; these factors increase the corrosion potential of ageing aircraft.





Corroded aluminium

Moisture condensation is an inevitable consequence of flight at high altitude, when the temperature of the outside air and of the outer skin of the aircraft is cold (typically  $-40\text{ }^{\circ}\text{C}$  /  $-40\text{ }^{\circ}\text{F}$ ). The temperature of the outer skin is usually below the dew point and therefore moisture condensation from the cabin air occurs on most flights. As the aircraft ascends to its cruising altitude (~ 5,000 to 30,000 ft. / 1,500 to 10,000 m) the temperature of the outside air and of the airframe skin will be below freezing point ( $0\text{ }^{\circ}\text{C}$  /  $32\text{ }^{\circ}\text{F}$ ), therefore most condensation will occur as frost.

The frost that forms at high altitude melts rapidly as the aircraft descends into warmer air for landing. The airframe becomes drenched with moisture. In theory this moisture is channelled to the drainage points in the bilge of the aircraft. However, some moisture inevitably becomes trapped in cracks, crevices, ledges and joints within the airframe.

### Summary

Moisture condensation is an inevitable consequence of flight – high ground and low in-flight temperatures lead to moisture condensation which will penetrate deeply into any unprotected cracks, crevices and joints within the airframe. Therefore, an effective corrosion prevention and control program is crucial. Chemetall's Ardrex® AV Corrosion Inhibiting Compounds (CIC) are ideally suited to control airframe corrosion – they are capable to displace moisture and form a protective barrier on the metal surface.

## Corrosion never sleeps



Heavy operating conditions can accelerate corrosion

Corrosion never sleeps. As soon as an aircraft is flown it is under attack from conditions that contribute to and accelerate the corrosion cycle.

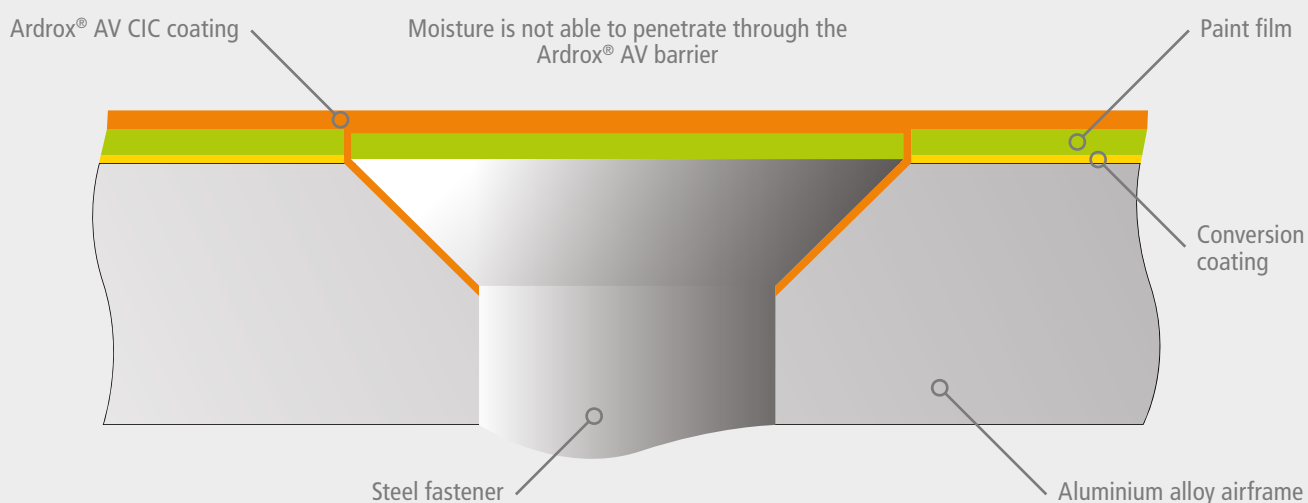
Some of the environmental factors that further reinforce airframe corrosion, even when the aircraft is on ground, are:

- Coastal conditions (wind, sand and salt)
- Tropical conditions
- High humidity
- Industrial pollution

In addition to these environmental forces, many other factors can contribute to the deterioration of a surface finish and subsequent corrosion of the unprotected substrate:

- Chips and scratches
- Paint blistering and cracking around fasteners
- Runway abrasion
- Deposits
- Aged finishes
- Condensation in any form, from any source, in any place

## Prevention is better than cure



How a typical Corrosion Inhibiting Compound (CIC) works to seal out moisture

An effective corrosion prevention and control program is crucial in controlling airframe corrosion and reducing the high cost of corrosion repair and metal replacement. The application of an Ardrox® AV CIC (Corrosion Inhibiting Compound) is an effective tactic for initial and on-going corrosion control. These compounds can be applied to all internal metal surfaces of the airframe (excluding the fuel tanks).

Ardrox® AV CICs are initially applied during the manufacturing of the airframe and reapplied during the service life of the aircraft at periodic maintenance intervals. Many areas of the airframe will be inaccessible after manufacture until the first "C" or "D" check is done. This usually happens at around about a four year interval. At those times it is a good opportunity to apply Ardrox® AV CICs within the normally hidden areas of the airframe. It must, of course, be applied properly and effectively to achieve the desired level of corrosion inhibition.

The purpose of an Ardrox® AV CIC is to displace moisture and form a protective barrier. This protective barrier is particularly important in the areas of the highest susceptibility to corrosion, preventing moisture and condensation from accumulating in crevices, cracks, and all metal-to-metal interfaces.

The CIC is designed to penetrate through interfaces, to form a protective secondary barrier, and prevent the moisture from contacting the metal.

With Ardrox® AV CIC, as with any corrosion control strategy, prevention is always better than cure.

### **Ardrox® AV CICs ...**

#### **... Penetrate**

Into the joints, cracks and crevices within the airframe

#### **... Displace moisture**

Drive out water (moisture)

#### **... Inhibit corrosion**

Slow down or stop corrosive reactions

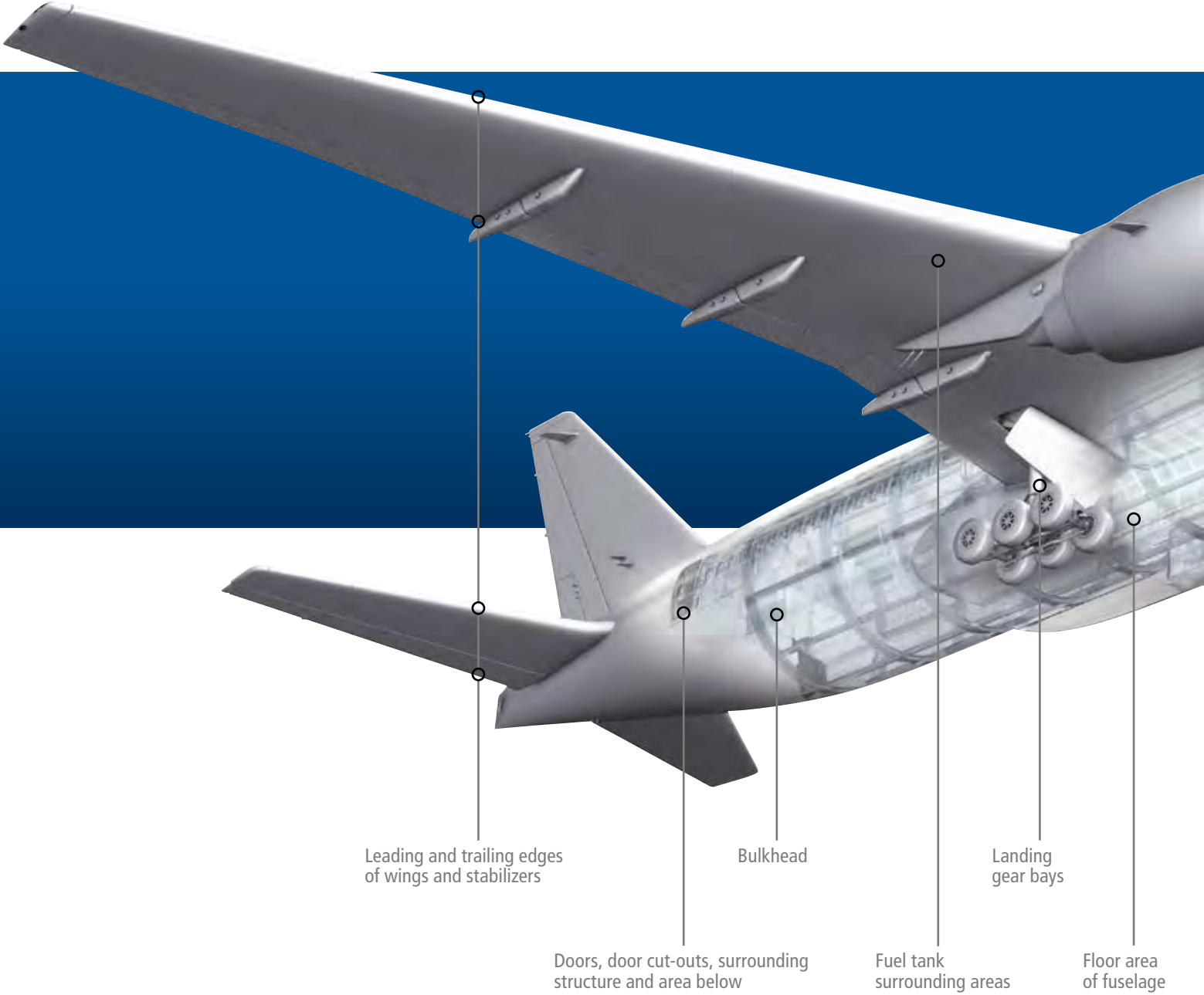
#### **... Form a protective barrier**

Prevent water from getting back into cracks

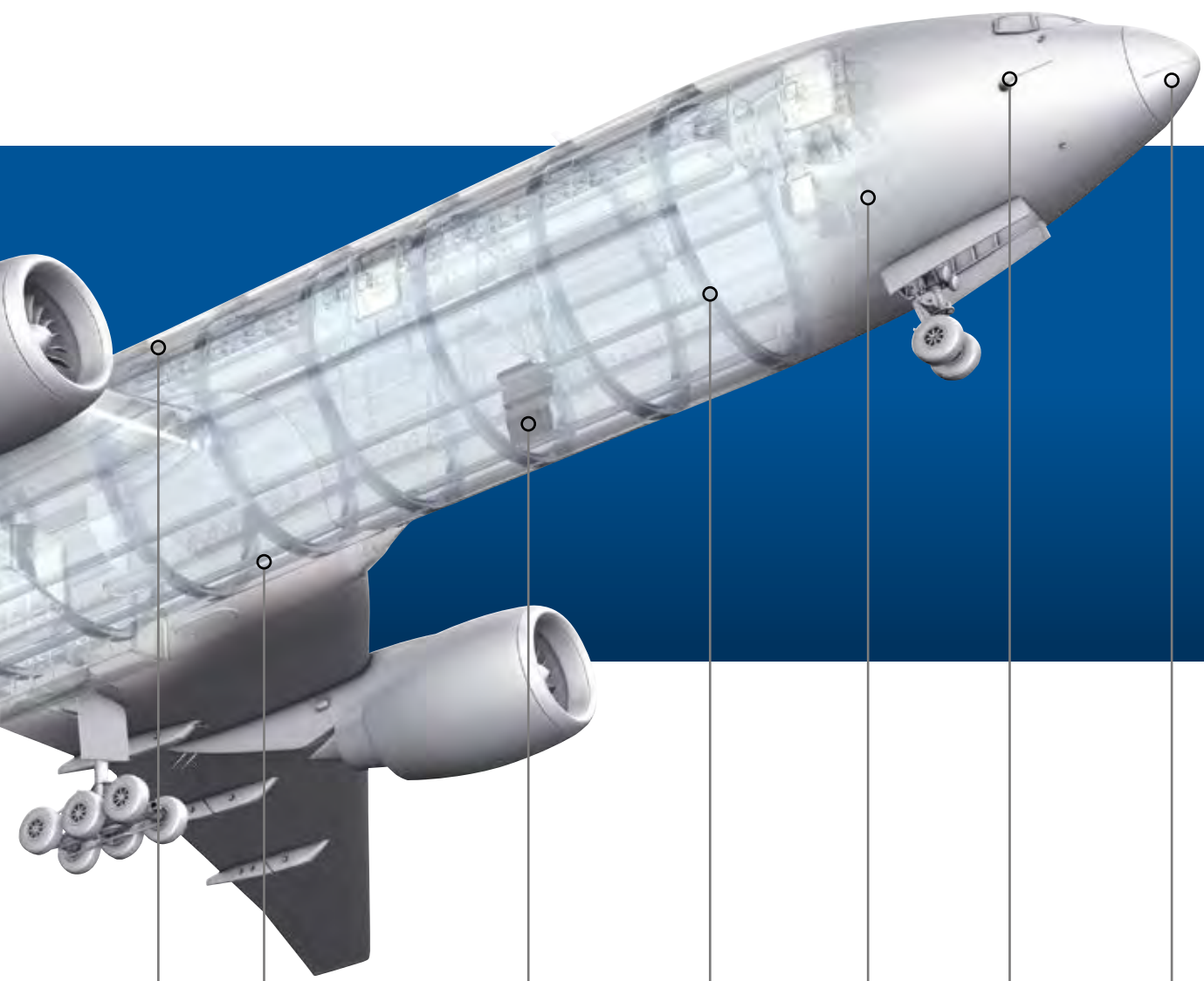
#### **... Give long-term SECONDARY corrosion protection!**

# Critical areas for aircraft corrosion

Ardrox® AV CIC helps to protect all places where moisture can occur







Crown area of fuselage

Bilge areas, lower structures, keel-beam

Passenger and cargo doors and their internal structure

Hull with stringers and frames

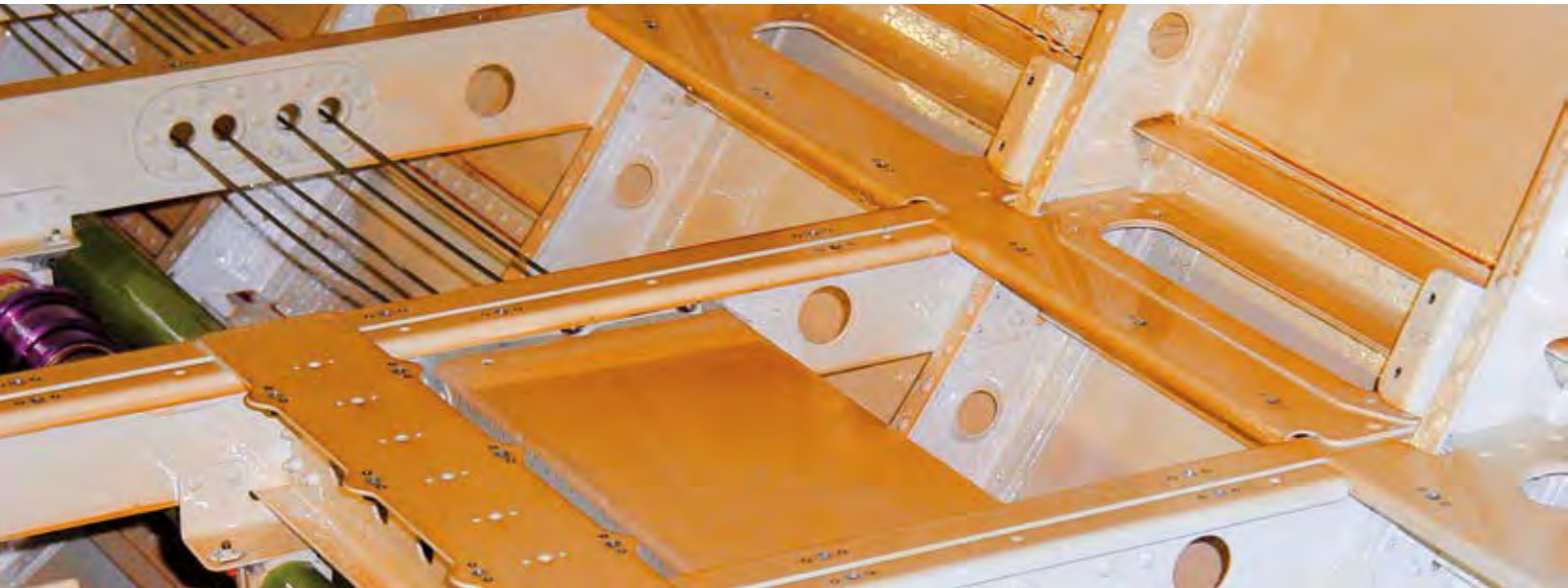
Structure below galleys and lavatories (toilet area)

Structures covered by fairings and antennas

Nose

## Application guidelines

### General application guidelines for Ardrox® AV products



Complex airframe structures protected by Ardrox® AV CIC

In order to achieve good corrosion prevention and fast, efficient treatment on aircraft and helicopters, the following points have to be taken into consideration.

#### Treatment guidelines

- Ardrox® AV Corrosion Inhibiting Compounds (CIC) are to be applied on all surfaces requiring corrosion protection treatment.
- A narrow stream of Ardrox® AV CIC should remain along stringer, profiles and other joints in order to provide penetration. A stream of 3 to 5 mm is acceptable.
- Heavy overspray, or excess Ardrox® AV CIC which has collected in pools or puddles must be removed. It can be soaked up by using absorbent rags or carpets.
- A narrow circle of Ardrox® AV CIC can be visible around fasteners and rivets.
- Ardrox® AV is not a decorative finish to a surface. It should not be compared to a painted area. Runs, sags and dips are allowed.
- In order to provide optimal corrosion prevention, all stringers, longerons and frames have to be treated from an extremely short distance in order to cover the underside of the components. This will create heavy overspray. Some of it can be removed, but runs will still not be eliminated and are acceptable.



Ardrox® AV CIC can be visible around fasteners and rivets



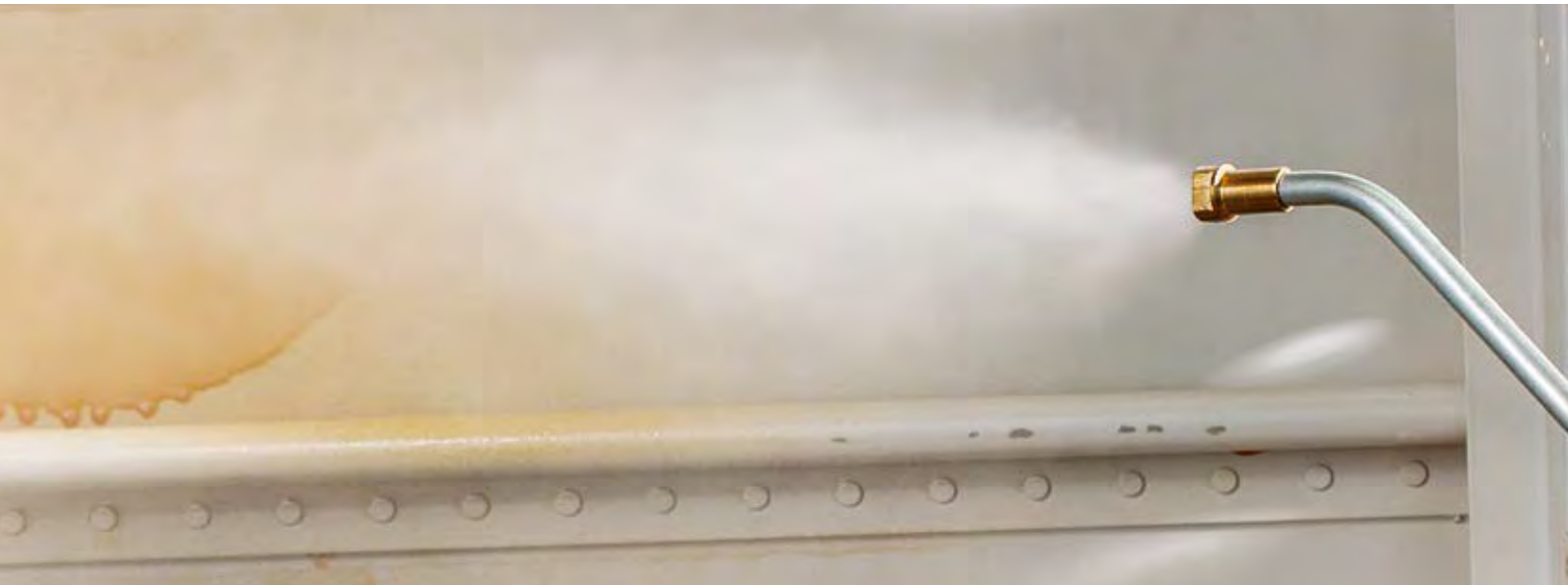
Runs, sags and dips are allowed

- Apply sufficient Ardrox® AV CIC. If a too small amount of CIC is applied then penetration into crevices will be limited. Penetration of the CIC into cracks and crevices to displace moisture is an essential part of the corrosion protection treatment. If the CIC does not penetrate into the cracks and crevices there is the danger that condensing water will accumulate in these areas and cause corrosion.
- Brush application of Ardrox® AV CIC will not promote sufficient penetration. Brush application of CIC should only be used where penetration is not required.
- For touch up and small application, an Ardrox® AV CIC Aerosol can be used. Preferably together with the semi-flexible nozzle (Code: 124152999).

#### Applicable wet film thickness

AV CIC	Wet Film Thickness (µm)
AV 8	15 to 30
AV 15	20 to 50
AV 25	35 to 90
AV 30	40 to 100
AV 35D	50 to 100
AV 40	60 to 100
AV 100D	120 to 200

## Practical advice



Spray application of Ardrox® AV CIC

### Practical advice to technicians

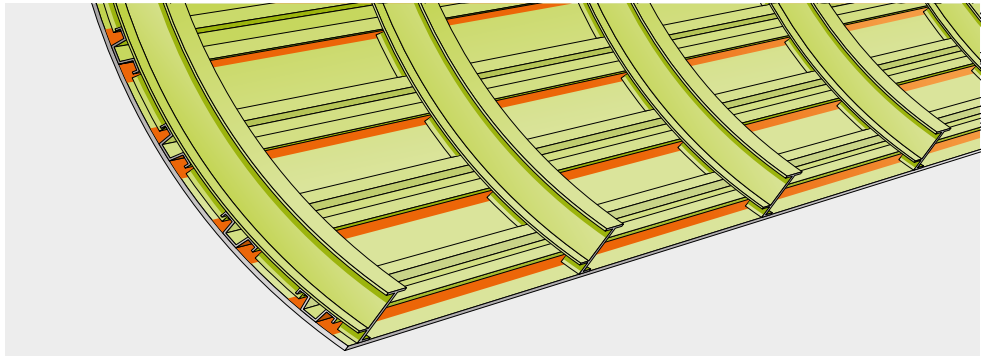
- Select a limited area for application between two stringers and frames or similar.
- Treat all hidden surfaces like profiles, stringers and frames by using a 150° full cone or 90° flat spray pattern wand.
- Allow the Ardrox® AV CIC to penetrate for some minutes.
- Remove the surplus Ardrox® AV CIC from plain, general surfaces.
- Treat general surfaces to required film thickness.
- Masking of vital components is very important.
- Pipes, tubes or single wires do not need to be masked. However, they have to be kept free from CIC contamination.
- Accidental overspray of CIC has to be removed immediately.

### Advantage of working systematically

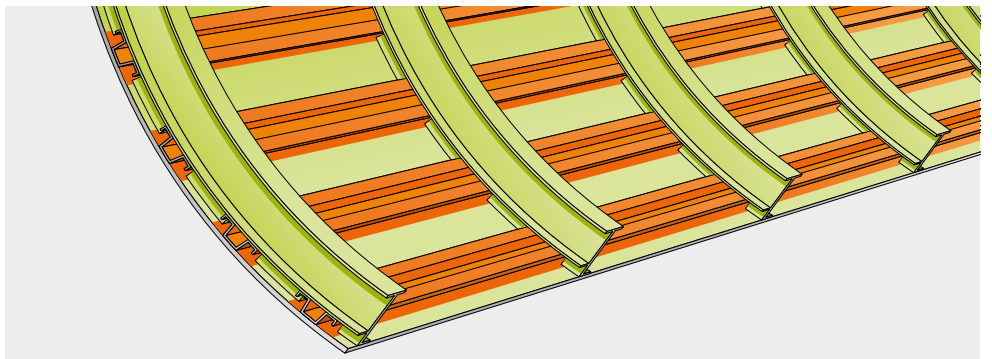
- No missing spots on hidden surfaces.
- Runs, dips and sags can easily be removed from general surfaces.
- General surfaces can now be treated correctly and evenly without overspray.
- Minimizes misting and the appearance of drips.



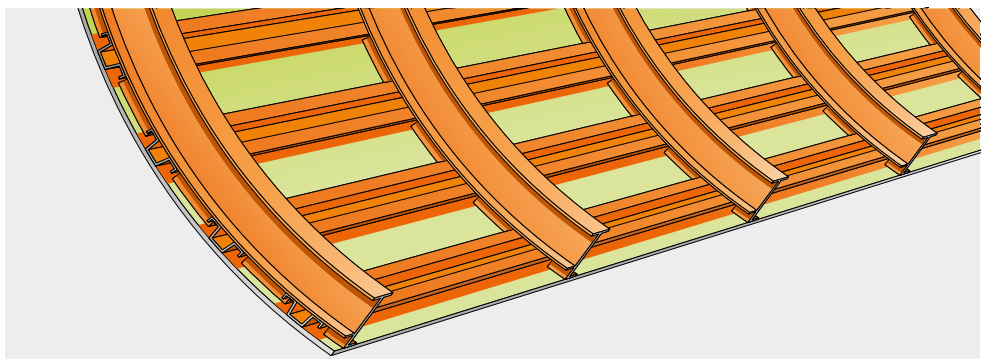
**1<sup>st</sup> step: apply Ardrox® AV under stringers**



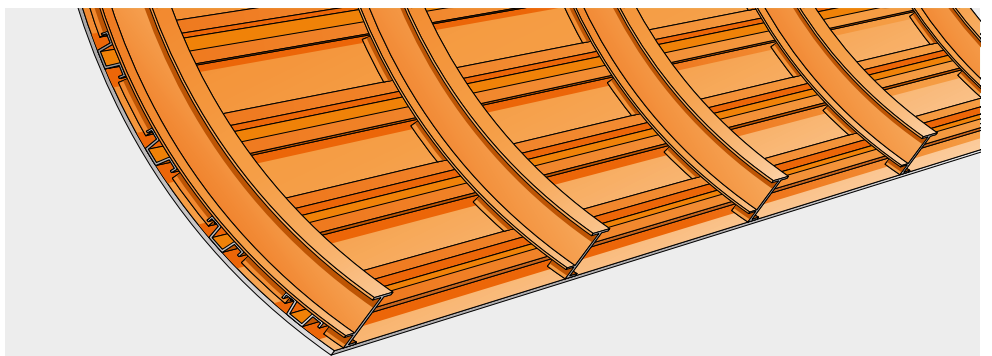
**2<sup>nd</sup> step: apply Ardrox® AV on top of stringers**



**3<sup>rd</sup> step: apply Ardrox® AV on frames**











**4<sup>th</sup> step: apply Ardrox® AV on remaining general areas**



## The Ardrox® AV product range

With the Ardrox® AV product range you are in a position to choose between a variety of corrosion inhibiting compounds with tailor-made properties and a large number of approvals

from all major OEMs. In the table below you can select the products suitable for your application. The complete range of approvals can be found on the certificate of conformity.

Product	Appearance	Major applicable international specifications	Packaging
<b>Ardrox® AV 8</b> Super penetrating, water displacing. Also as first component prior to Ardrox® AV 100D	Liquid	AIMS 09-08-001, BAMS 565-006, BMS 3-23 Type II Class 2 Grade A, CMS CT-501, MEP 10-063, MIL-PRF-16173E (Conformance)	
<b>Ardrox® AV 15</b> Super penetrating, water displacing	Liquid	AIMS 09-08-003, BAMS 565-006, BMS 3-35, EADS/Eurofighter as MIL-PRF-16173, MEP 10-063, MIL-DTL-85054	
<b>Ardrox® AV 25</b> Penetrating, water displacing, for movable parts	Liquid	AIMS 09-08-001, BMS 3-26, MIL-PRF-16173E (Conformance)	
<b>Ardrox® AV 30</b> Penetrating, water displacing	Liquid	AIMS 09-08-002, BAMS 565-006, BMS 3-29, CMS CT-502, MEP 10-063, MIL-PRF-16173E (Conformance)	
<b>Ardrox® AV 35D</b> Super penetrating, water displacing	Liquid, fluorescent, UV-detectable	AIMS 09-08-004	
<b>Ardrox® AV 40</b> Penetrating, heat-resistant	Liquid	French Ministry of Defense, Lockheed Martin Aeronautical Systems, Pilatus VV 0302-10, SAAB AIRCRAFT STD 161454	
<b>Ardrox® AV 100D</b> 2-component, long-term corrosion protection. Requires pretreatment with Ardrox® AV 8	Thixotropic	AIMS 09-08-002, BMS 3-26 Type II, MIL-PRF-16173E Type II, GRADE 1 (Conformance)	
<b>Ardrox® AV 980</b> Thixotropic cleaner	Thixotropic		





ACS/LCS system

### Application Systems

With the AAS High Pressure Airless Application System and the ACS/LCS Low-Pressure Airmix Application System with their wide range of wands, nozzles and spare parts Chemetall provides you with the equipment you need to protect your aircraft.

Choose the ACS/LCS Low-pressure Airmix System for high flexibility. With its 5 liter pressure pot it can be carried by hand to the place where it is needed.



AAS system

Choose the AAS for high throughput capacity. With its design to take 20 liter pails there is no filling operation required. Increase your productivity with two spray guns supplied by one AAS.

➔ **Save time and rely on Chemetall's years of experience in working with our customers and choose one of the recommended equipment sets as detailed on the following pages.**

### The ACS Basic Set

For basic structural elements in easily accessible configurations and medium treatment frequency.

Amount	Name	Code
1	ACS/LCS Pressure Pot 5 L complete with SATA 1000 KK Spray Gun	124030999
1	ACS/LCS Twin Hose 10 m x 6 mm	124074999
1	ACS Wand 2	124100999
1	ACS Extension Hose 700 mm	124172999

### The ACS Extended Set

The ACS Basic set and additional set of equipment for all structural elements in accessible configurations and suitable for high treatment frequencies.

Amount	Name	Code
1	ACS Wand 3	124101999
1	ACS Wand 4	124102999
1	ACS Wand 6	124103999
1	ACS Wand 10	124107999

### The ACS Complete Set

The ACS Basic and Extended Set plus additional set of equipment for all structural elements in most configurations and extensive treatment with high frequency.

Amount	Name	Code
1	ACS Wand 1	124099999
1	ACS Wand 7	124104999
1	ACS Wand 8	124105999
1	ACS Wand 9	124106999

### The LCS Basic Set

For basic structural elements in easily accessible configurations and medium treatment frequency.

Amount	Name	Code
1	ACS/LCS Pressure Pot 5 L complete with SATA 1000 KK Spray Gun	124030999
1	ACS/LCS Twin Hose 10 m x 6 mm	124074999
1	LCS Wand 15 incl. SATA 1000 KK Adapter	124037999
1	LCS Wand 16 incl. SATA 1000 KK Adapter	124038999
1	LCS Wand 18 incl. SATA 1000 KK Adapter	124039999



### The AAS Basic Set

For basic structural elements in easily accessible configurations and medium treatment frequency.

Amount	Name	Code
1	AAS Airless Pump 1:26 complete	124051999
1	AAS Wand 1	124086999
1	AAS Wand 8	124092999
1	AAS Extension Hose 1,000 mm	124097999
1	AAS Cleaning Needle Set (12 PCS)	124144999
5	AAS Filter 200 Mesh	124131999
2	AAS Jet # 11 - 150° FC Easyclean	124122999
2	AAS Jet # 9 - 80° FT	124119999
1	AAS Seal Kit for pump 1:26	124056999
1	AAS Seal Kit for air motor 1:26	124058999
1	AAS Service Set for air motor 1:26	124057999
1	AAS Service Set for spray gun	124062999

### The AAS Extended Set

The AAS Basic set and additional set of equipment for all structural elements in accessible configurations and suitable for high treatment frequencies.

Amount	Name	Code
1	AAS Wand 6	124090999
1	AAS Wand 10	124094999
1	AAS Wand 13	124096999
2	AAS Jet # 5 - 360° radial	124117999
2	AAS Jet # 11 - 150° FC Easyclean	124122999
2	AAS Jet # 13 - 15° FC	124120999

### The AAS Complete Set

The AAS Basic and Extended Set plus additional set of equipment for all structural elements in most configurations and extensive treatment with high frequency.

Amount	Name	Code
1	AAS Wand 2	124087999
1	AAS Wand 5	124089999
1	AAS Wand 7	124091999
1	AAS Wand 9	124093999
1	AAS Wand 11	124095999
4	AAS Jet # 8 - 95° FT	124118999
2	AAS Jet # 4 - 180° radial	124116999
2	AAS Jet # 11 - 150° FC Easyclean	124122999
2	AAS Jet # 9 - 80° FT	124119999
1	AAS Wand Extension Unit 700 mm	124098999

## Equipment overview

### ACS/LCS (pressure pot-system and spare parts)



#### Description

ACS/LCS Pressure Pot for Low-Pressure Airmix Application

#### Technical data

Methods: Low Pressure Airmix System (ACS)  
Low Pressure Coating Systems (LCS)

Weights: 2.5 kg

Volume: 5.7 liter

Air pressure: max. 10 bar

Air consumption: 100 liter per minute at 6 bar

#### Range of use

Pressurized 5 liter pot, complete with 10 m twin hose, adapter and spray gun. For spraying low and high viscosity compounds. With pressure regulators and manometers for compound- air pressure. Can be easily transported. Compound is filled directly into the pot and pressurized by connecting to line air. Do not use paint thinners for cleaning!

#### ACS/LCS Pressure Pot 5 Liter

Name	Code
ACS/LCS Pressure Pot 5 L complete with SATA 1000 KK Spray Gun	124030999

#### Spare Part for Pressure Pot

Name	Code
ACS/LCS Twin Hose 10 m x 6 mm	124074999
ACS/LCS SATA 1000 KK Spray Gun with filter incl. LCS Wand 18	124032999
ACS/LCS Pressure Regulator – Manometer Block	124130999
ACS/LCS Check Filter 100 Mesh for SATA guns and pipe	124076999
ACS/LCS O-Ring Set Pressure Pot (3 PCS)	124066999
Service Set for SATA 1000 KK Spray Gun	124179999

## LCS wands



LCS Wand 15

LCS Wands				
Name	Recommended for...	Spray Pattern	Dimensions	Code
LCS Wand 15 <sup>1)</sup>	Open surfaces, and areas with difficult access	45° hook, 50° full cone	400 x 8 mm <sup>2)</sup>	124037999
LCS Wand 16 <sup>1)</sup>	Areas with difficult access, wide cavities, remote surfaces	45° hook, 90° fishtail	400 x 8 mm <sup>2)</sup>	124038999
LCS Wand 18 <sup>1)</sup>	Open areas and wide cavities, remote surfaces	Straight, 90° fishtail	30 x 8 mm	124039999
LCS Wand 20 Modular System <sup>1)</sup>	Length diameter flexibility and spray patterns are available in a wide variety of dimensions	–	–	124040999

<sup>1)</sup> SATA 1000 KK Adapter included

<sup>2)</sup> 600 mm flexible connection hose included

## LCS spare parts



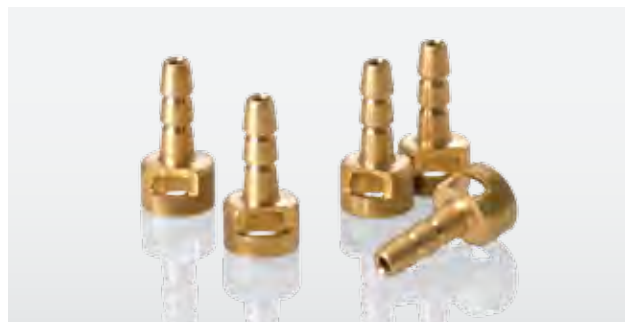
LCS Air Hose 1 m x 8/6 mm / LCS Hose 1 m x 4/2.7 mm

### Spare Parts for LCS Wands

Name	Code
LCS Hose 1 m x 4/2.7 mm	124020999
LCS Air Hose 1 m x 8/6 mm	124141999
LCS Connecting Nipple Set for SATA 1000 KK Spray Gun (black, 5 PCS)	124036999
LCS Mixing Chamber Set 0.5 mm (5 PCS)	124129999



LCS Connecting Nipple Set for SATA 1000 KK Spray Gun (black, 5 PCS)



LCS Mixing Chamber Set 0.5 mm (5 PCS)

## ACS wands



ACS Wand 1

ACS Wands			
Name	Shape and Spray Pattern	Dimensions	Code
ACS Wand 1 <sup>1) 2) 4)</sup>	45° hook, 45° full cone	400 x 8 mm	124099999
ACS Wand 2 <sup>1) 2) 3) 4)</sup>	45° venturi hook (for high viscosity compounds), 45° full cone	400 x 8 mm	124100999
ACS Wand 3	Straight, 360° full sphere	1,500 x 8 mm, flexible	124101999
ACS Wand 4	Straight, 360° full sphere	1,100 x 8 mm, semi flexible	124102999
ACS Wand 6 <sup>1) 2)</sup>	90° hook 12° full cone	300 x 4 mm	124103999
ACS Wand 7 <sup>2)</sup>	Straight, 180° radial flat	1,100 x 8 mm	124104999
ACS Wand 8	Straight, 360° full sphere	3,000 x 6.5 mm, flexible	124105999
ACS Wand 9 <sup>1) 2)</sup>	45° hook, 45° full cone, 600 mm long spray pattern for remote surfaces	750 x 8 mm	124106999
ACS Wand 10 <sup>1) 2) 3)</sup>	45° hook, 45° full cone, 600 mm long spray pattern for remote surfaces	750 x 8 mm	124107999

<sup>1)</sup> The treatment of long, closed cavities may be limited, if too high pressure is created at the far end of the cavity. This can result in a "hovercraft effect", which inhibits good coverage. This phenomenon is typical of airmix spray application in confined cavities. In this case, airless application may be appropriate

<sup>2)</sup> To avoid damaging the quick disconnect coupling, always use the extension hose (code: 124172999)

<sup>3)</sup> The venture jet enhances atomization particularly when high viscosity and/or thixotropic compounds are being applied. It also allows the application of an extremely thin film of the compound

<sup>4)</sup> Can be directed to remote surfaces giving good coverage



# ACS spare parts



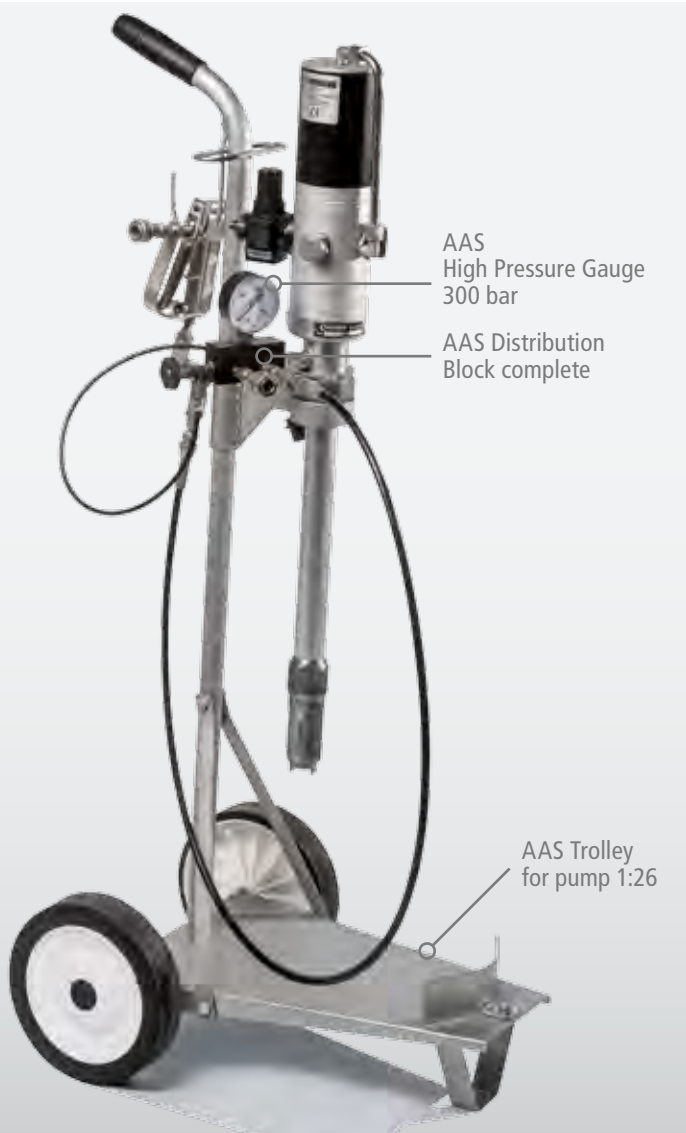
ACS Adapter for SATA 1000 KK Spray Gun (aluminium)



ACS Extension Hose 700 mm

Spare Parts for ACS Wands	
Name	Code
ACS Adapter for SATA 1000 KK Spray Gun (aluminium)	124033999
ACS Extension Hose 700 mm	124172999

## AAS (system and spare parts)



### AAS Airless Pump

Name	Code
AAS Airless Pump 1:26 complete	124051999

This unit is the basis of the Airless Application System – AAS. It consists of a pneumatic, high pressure, airless pump 1:26, complete for 20 liter (5 gallon) pails, including trolley, compound hose, twin hose connection, spray gun and air treatment unit.

By fitting a second spray gun it can serve two working areas simultaneously. The trolley is designed to use standard 20 liter (5 gallon) pails of CIC. This equipment will provide maximum workplace flexibility. It is light in weight and can be easily moved to any convenient location. It is equipped with both line air and compound pressure gauges for exact adjustment.

### Spare Parts for the AAS Airless Pump 1:26 Complete

Name	Code
AAS Distribution Block complete	124054999
AAS High Pressure Gauge 300 bar	124206999
AAS Trolley for pump 1:26	124059999
AAS Service Set for air motor 1:26	124057999
AAS Seal Kit for pump 1:26	124056999
AAS Seal Kit for air motor 1:26	124058999
AAS Line Air Treatment Unit	124205999

# AAS spray gun set



AAS Spray Gun Set

## Description

The spray gun set for the high pressure Airless Application System including 10 m hose, Z-Swivel, male quick coupling and spray gun can be used as a spare gun or a second gun doubling the working capacity of the AAS Pump Unit.

AAS Spray Gun Set	
Name	Code
AAS Spray Gun Set	124052999

Spare Parts for Spray Gun Set	
Name	Code
AAS Spray Gun	124061999
AAS Product Hose 10 m	124053999
AAS Quick Coupling 1/8" female	124135999
AAS Quick Coupling 1/8" male	124136999
AAS Z-Swivel	124134999
AAS Service Set for spray gun	124062999
AAS O-ring for quick coupling (10 PCS)	124006999

## AAS wands



AAS Wand 1

AAS Wands				
Name	Recommended for...	Spray Pattern	Dimensions	Code
AAS Wand 1 <sup>1)</sup>	Small cavities	90° hook, 150° full cone	150 x 8 mm	124086999
AAS Wand 2 <sup>1)</sup>	Small cavities	45° hook, 95° fish tail	400 x 8 mm	124087999
AAS Wand 3 <sup>1)</sup>	Small cavities	45° hook, 150° full cone	800 x 8 mm	124088999
AAS Wand 5 <sup>1)</sup>	Wide box sections compounds	Straight, 180° radial flat	1,500 x 8 mm	124089999
AAS Wand 6 <sup>1)</sup>	Narrow box section	Straight, 360° radial flat	1,500 x 8 mm	124090999
AAS Wand 7	Flexible lance for narrow box sections	Straight, flexible, 150° full cone	2,000 x 8 mm	124091999
AAS Wand 8 <sup>1)</sup>	General purpose	45° hook, 80° fish tail	400 x 8 mm	124092999
AAS Wand 9 <sup>1)</sup>	Small cavities	45° hook, 95° fish tail	800 x 8 mm	124093999
AAS Wand 10	Flexible lance, for narrow box sections	Flexible straight, 150° full cone	1,100 x 8 mm	124094999
AAS Wand 11 <sup>2)</sup>	Open surfaces	Straight, 80° fish tail	150 x 8 mm	124095999
AAS Wand 13 <sup>1)</sup>	Cavities with restricted access like ventilation holes	90° hook, 15° full cone, long and narrow spray pattern	250 x 4 mm	124096999
AAS Wand Extension Unit <sup>1)</sup>	For extension of rigid lance to a desired length	N A	700 x 8 mm	124098999

<sup>1)</sup> To avoid damaging the quick coupling and to enhance the flexibility of the system always use the extension hose (code: 124097999), when connecting this wand to the spray gun

<sup>2)</sup> This wand can be attached directly to the spray gun, it can also be used in combination with the extension hose (code: 124097999)

## AAS spare parts



AAS Teflon Wand Guide Set (5 PCS)

Spare Parts for AAS Wands		
Name	Spare Part for AAS Wand No.	Code
AAS Teflon Wand Guide Set (5 PCS)	1, 2, 3, 8, 9	124125999
AAS Jet # 13 - 15° FC	13	124120999
AAS Jet # 4 - 180° radial	4	124116999
AAS Jet # 5 - 360° radial	6	124117999
AAS Jet # 8 - 95° FT	2, 9	124118999
AAS Jet # 9 - 80° FT	8, 11	124119999
AAS Jet # 11 - 150° FC Easyclean	1, 3, 7, 10	124122999
AAS Filter 200 Mesh	All	124131999

Spare Parts for AAS Wands		
Name	Spare Part for AAS Wand No.	Code
AAS Quick Coupling 1/8" male	All	124136999
AAS Cleaning Needle Set (12 PCS)	N A	124144999
AAS Filter Screen 200 Mesh (10 PCS)	All	124133999
AAS O-ring Set for Easyclean jets (10 PCS)	All	124126999
AAS Extension Hose 1,000 mm quick coupling male and female	All	124097999



## Acessories, add-ons



Aerosol Extension Semiflex 600 mm x 4 mm

### Acessories, Add-Ons

Name	Code
Aerosol Extension Semiflex 600 mm x 4 mm	124152999
Paint Needle 1.5 mm for SATA 1000 KK (set)	124041999
Paint Nozzle 1.5 mm for SATA 1000 KK (set)	124042999
Wet Film Gauge	124127999



Paint Needle 1.5 mm / Paint Nozzle 1.5 mm for SATA 1000 KK (set)



Wet Film Gauge

# Chemetall at a glance

Chemetall is a leading global surface treatment supplier, headquartered in Frankfurt, Germany. With our 2,500 employees, 40 subsidiaries and 22 production sites, we are a financially strong and fast growing company with a long-term orientation. Our aim is to further strengthen our quality and innovation leadership. With our own sales offices, production facilities, service teams, laboratories and warehouses at locations all around the world, we are operating in close proximity to our customers.

The chemical treatment of metal surfaces is our core competence: Our products are developed for cleaning, giving corrosion protection, sealing, improving paint adhesion, and facilitating the forming and treatment of metals. Our globally established technologies are used in the most diverse industry sectors and have played a leading role in shaping metal treatment.



**Headquarters and  
Regional Head Office  
Europe, Middle East, Africa,  
South America**  
Chemetall GmbH  
Trakehner Straße 3  
60487 Frankfurt am Main  
Germany  
Phone: +49 (0) 69 7165-0  
surfacetreatment@chemetall.com

**Regional Head Office  
North America**  
Chemetall US, Inc.  
675 Central Avenue  
New Providence, NJ 07974  
USA  
Phone: +1 908 464 6900  
chemetall.americas@chemetall.com

**Regional Head Office  
Asia-Pacific**  
Chemetall Asia Pte Ltd.  
12 Loyang Crescent  
Singapore 508980  
Phone: +65 6885 7900  
cm.asia@chemetall.com

[www.chemetall.com](http://www.chemetall.com)

The product information contained in this brochure has been compiled to the best of our knowledge on the basis of thorough tests and research work and with regard to the current state of our practical experience in the industry. This product information is non-binding. Our statements relating to possible uses of the product do not constitute a guarantee that such uses are appropriate in a particular user's case or that such uses do not infringe the patents or proprietary rights of any third party. We assume no risk or liability whatever in connection with any particular use, if not expressly confirmed by us in writing. Therefore Chemetall grants no warranty and does not accept any liability in connection with this product information or its use. Except where noted otherwise, all registered trademarks are owned by Chemetall or its affiliated companies. The reproduction of any or all of the information contained in this brochure is expressly forbidden without Chemetall's prior written consent.

© 2015 Chemetall GmbH, Frankfurt am Main, Germany