The Ardrox® AV World:
Superior corrosion protection products, equipment and services for the aerospace industry.
Your global partner for the aerospace industry
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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.
Globally active, locally based
The global business activities of Chemetall are based on tradition and experience dating all the way back to the 19th century. Nowadays, Chemetall 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, Chemetall 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 Chemetall’s long-standing global experience in your line of business and from our top-quality and eco-friendly technologies.

More to read on www.chemetall.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 Ardrox® 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 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.
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 °C / -40 °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 °C / 32 °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 Ardrox® AV Corrosion Inhibiting Compounds (CIC) are ideally suited to control airframe corrosion – they are capable of displacing moisture and form a protective barrier on the metal surface.
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

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

- Landing gear bays
- Doors, door cut-outs, surrounding structure and area below
- Floor area of fuselage
- Leading and trailing edges of wings and stabilizers
- Bulkhead
- Fuel tank surrounding areas
Nose

Structures covered by fairings and antennas

Structure below galleys and lavatories (toilet area)

Hull with stringers and frames

Passenger and cargo doors and their internal structure

Bilge areas, lower structures, keel-beam

Crown area of fuselage
Application guidelines
General application guidelines for Ardrox® AV products

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.
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

<table>
<thead>
<tr>
<th>AV CIC</th>
<th>Wet Film Thickness (µm)</th>
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<tr>
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<tr>
<td>AV 100D</td>
<td>120 to 200</td>
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Practical advice

**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.
1st step: apply Ardrox® AV under stringers

2nd step: apply Ardrox® AV on top of stringers

3rd step: apply Ardrox® AV on frames

4th 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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Appearance</th>
<th>Major applicable international specifications</th>
<th>Packaging</th>
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<tr>
<td>Ardrox® AV 8</td>
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Aerosol  Bulk
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.

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.

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.

<table>
<thead>
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<th>Amount</th>
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### The LCS Basic Set
For basic structural elements in easily accessible configurations and medium treatment frequency.

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### 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.

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### 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.

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### The AAS Basic Set

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

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### 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.

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### 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.

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<td>2</td>
<td>AAS Jet # 13 - 15° FC</td>
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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

<table>
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Spare Part for Pressure Pot

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<td>ACS/LCS SATA 1000 KK Spray Gun with filter incl. LCS Wand 18</td>
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<tr>
<td>ACS/LCS Pressure Regulator – Manometer Block</td>
<td>124130999</td>
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<tr>
<td>ACS/LCS Check Filter 100 Mesh for SATA guns and pipe</td>
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<td>124066999</td>
</tr>
<tr>
<td>Service Set for SATA 1000 KK Spray Gun</td>
<td>124179999</td>
</tr>
</tbody>
</table>
LCS Wands

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

1) SATA 1000 KK Adapter included
2) 600 mm flexible connection hose included
## LCS spare parts

### Spare Parts for LCS Wands

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCS Hose 1 m x 4/2.7 mm</td>
<td>124020999</td>
</tr>
<tr>
<td>LCS Air Hose 1 m x 8/6 mm</td>
<td>124141999</td>
</tr>
<tr>
<td>LCS Connecting Nipple Set for SATA 1000 KK Spray Gun (black, 5 PCS)</td>
<td>124036999</td>
</tr>
<tr>
<td>LCS Mixing Chamber Set 0.5 mm (5 PCS)</td>
<td>124129999</td>
</tr>
</tbody>
</table>
ACS Wands

<table>
<thead>
<tr>
<th>Name</th>
<th>Shape and Spray Pattern</th>
<th>Dimensions</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS Wand 1</td>
<td>$45^\circ$ hook, $45^\circ$ full cone</td>
<td>400 x 8 mm</td>
<td>1240999999</td>
</tr>
<tr>
<td>ACS Wand 2</td>
<td>$45^\circ$ venturi hook (for high viscosity compounds), $45^\circ$ full cone</td>
<td>400 x 8 mm</td>
<td>1241009999</td>
</tr>
<tr>
<td>ACS Wand 3</td>
<td>Straight, 360° full sphere</td>
<td>1,500 x 8 mm, flexible</td>
<td>1241019999</td>
</tr>
<tr>
<td>ACS Wand 4</td>
<td>Straight, 360° full sphere</td>
<td>1,100 x 8 mm, semi flexible</td>
<td>1241029999</td>
</tr>
<tr>
<td>ACS Wand 6</td>
<td>$90^\circ$ hook $12^\circ$ full cone</td>
<td>300 x 4 mm</td>
<td>1241039999</td>
</tr>
<tr>
<td>ACS Wand 7</td>
<td>Straight, 180° radial flat</td>
<td>1,100 x 8 mm</td>
<td>1241049999</td>
</tr>
<tr>
<td>ACS Wand 8</td>
<td>Straight, 360° full sphere</td>
<td>3,000 x 6.5 mm, flexible</td>
<td>1241059999</td>
</tr>
<tr>
<td>ACS Wand 9</td>
<td>$45^\circ$ hook, $45^\circ$ full cone, 600 mm long spray pattern for remote surfaces</td>
<td>750 x 8 mm</td>
<td>1241069999</td>
</tr>
<tr>
<td>ACS Wand 10</td>
<td>$45^\circ$ hook, $45^\circ$ full cone, 600 mm long spray pattern for remote surfaces</td>
<td>750 x 8 mm</td>
<td>1241079999</td>
</tr>
</tbody>
</table>

1) 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.

2) To avoid damaging the quick disconnect coupling, always use the extension hose (code: 1241729999).

3) 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.

4) Can be directed to remote surfaces giving good coverage.
ACS spare parts

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS Adapter for SATA 1000 KK Spray Gun (aluminium)</td>
<td>124033999</td>
</tr>
<tr>
<td>ACS Extension Hose 700 mm</td>
<td>124172999</td>
</tr>
</tbody>
</table>
AAS (system and spare parts)

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.

### AAS Airless Pump

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS Airless Pump 1:26 complete</td>
<td>124051999</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS Distribution Block complete</td>
<td>124054999</td>
</tr>
<tr>
<td>AAS Line Air Treatment Unit</td>
<td>124205999</td>
</tr>
<tr>
<td>AAS High Pressure Gauge 300 bar</td>
<td>124206999</td>
</tr>
<tr>
<td>AAS Service Set for air motor 1:26</td>
<td>124057999</td>
</tr>
<tr>
<td>AAS Trolley for pump 1:26</td>
<td>124059999</td>
</tr>
<tr>
<td>AAS Trolley for air motor 1:26</td>
<td>124058999</td>
</tr>
<tr>
<td>AAS Seal Kit for pump 1:26</td>
<td>124056999</td>
</tr>
<tr>
<td>AAS Seal Kit for air motor 1:26</td>
<td>124058999</td>
</tr>
</tbody>
</table>
**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

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS Spray Gun Set</td>
<td>124052999</td>
</tr>
</tbody>
</table>

### Spare Parts for Spray Gun Set

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS Spray Gun</td>
<td>124061999</td>
</tr>
<tr>
<td>AAS Product Hose 10 m</td>
<td>124053999</td>
</tr>
<tr>
<td>AAS Quick Coupling 1/8” female</td>
<td>124135999</td>
</tr>
<tr>
<td>AAS Quick Coupling 1/8” male</td>
<td>124136999</td>
</tr>
<tr>
<td>AAS Z-Swivel</td>
<td>124134999</td>
</tr>
<tr>
<td>AAS Service Set for spray gun</td>
<td>124062999</td>
</tr>
<tr>
<td>AAS O-ring for quick coupling (10 PCS)</td>
<td>124006999</td>
</tr>
</tbody>
</table>
# AAS Wands

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

¹ 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

² 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

<table>
<thead>
<tr>
<th>Name</th>
<th>Spare Part for AAS Wand No.</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS Teflon Wand Guide Set</td>
<td>1, 2, 3, 8, 9</td>
<td>124125999</td>
</tr>
<tr>
<td>AAS Jet # 13 - 15° FC</td>
<td>13</td>
<td>124120999</td>
</tr>
<tr>
<td>AAS Jet # 4 - 180° radial</td>
<td>4</td>
<td>124116999</td>
</tr>
<tr>
<td>AAS Jet # 5 - 360° radial</td>
<td>6</td>
<td>124117999</td>
</tr>
<tr>
<td>AAS Jet # 8 - 95° FT</td>
<td>2, 9</td>
<td>124118999</td>
</tr>
<tr>
<td>AAS Jet # 9 - 80° FT</td>
<td>8, 11</td>
<td>124119999</td>
</tr>
<tr>
<td>AAS Jet # 11 - 150° FC</td>
<td>1, 3, 7, 10</td>
<td>124122999</td>
</tr>
<tr>
<td>AAS Filter 200 Mesh</td>
<td>All</td>
<td>124131999</td>
</tr>
</tbody>
</table>

## Spare Parts for AAS Wands

<table>
<thead>
<tr>
<th>Name</th>
<th>Spare Part for AAS Wand No.</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS Quick Coupling 1/8&quot; male</td>
<td>All</td>
<td>124136999</td>
</tr>
<tr>
<td>AAS Cleaning Needle Set (12 PCS)</td>
<td>N A</td>
<td>124144999</td>
</tr>
<tr>
<td>AAS Filter Screen 200 Mesh (10 PCS)</td>
<td>All</td>
<td>124133999</td>
</tr>
<tr>
<td>AAS O-ring Set for Easyclean jets (10 PCS)</td>
<td>All</td>
<td>124126999</td>
</tr>
<tr>
<td>AAS Extension Hose 1,000 mm quick coupling male and female</td>
<td>All</td>
<td>124097999</td>
</tr>
</tbody>
</table>
Acessories, add-ons

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerosol Extension Semiflex 600 mm x 4 mm</td>
<td>124152999</td>
</tr>
<tr>
<td>Paint Needle 1.5 mm for SATA 1000 KK (set)</td>
<td>124041999</td>
</tr>
<tr>
<td>Paint Nozzle 1.5 mm for SATA 1000 KK (set)</td>
<td>124042999</td>
</tr>
<tr>
<td>Wet Film Gauge</td>
<td>124127999</td>
</tr>
</tbody>
</table>
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.

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