

Locomotives built in Munich

A look back on more than 175 years of experience

1908

Siemens and Maffei build their first locomotive together.

1841

The company of Joseph Anton von Maffei (predecessor of Krauss-Maffei) delivers its first locomotive. It was called "Der Münchner".

1931

Krauss takes over the locomotive building business from Maffei and becomes Lokomotivenfabrik Krauss & Comp. – J.A. Maffei AG. The relocation to Allach is finished by 1935 – and construction of the new plant is largely complete two years later. In the following decades, locomotives are delivered all over the world from what is now the only locomotive plant in Munich.

The Munich-Allach location today

Unique synergies through close cooperation



Locomotive plant

The Siemens Allach plant is a locomotive manufacturing facility rooted in tradition. On 24,500 square meters of covered production area, a vehicle passes through all phases of manufacture, assembly and commissioning. Part of the development work is also carried out in Munich. Within the Siemens production network, Allach is the lead factory for locomotives. Other locomotive manufacturing sites around the globe are supplied with expertise from here, including Yekaterinburg in Russia or Sacramento in the US.



MindSphere Application Center for Rail

Allach is a high-tech facility for the data analysis of trains and infrastructure systems: The data streams of locomotives, high-speed trains and regional trains from European and non-European countries converge in the Siemens MindSphere Application Center for Rail. With this information, the Center has developed a unique data-driven service offering in the rail sector for the real-time monitoring of trains, the prediction of wear and failure of components and the analysis of complex problems.

1990

In the early 1990s, a close collaboration begins between Krauss-Maffei and Siemens that will ultimately lead to integration of the locomotive business into Siemens AG.

2017

Opening Bogie Service Center

2015

The Siemens locomotive plant builds the 22,000th locomotive – a Vectron.

Opening Rail Service Center



2014

Opening MindSphere Application Center for Rail

2016

Opening Support Center "Security and Operation"



Support Center

The "Security and Operation" Support Center and the Diagnose Center pools expertise in IT security and hosting of central infrastructure which is essential for providing Digital Services. Against this background, the Support Center is a single point of contact for ensuring reliable operation and higher availability of data transmission and analysis systems.



Rail Service Center

All types of maintenance and repair activities on car bodies and bogies are carried out at the service hall and the neighbouring Bogie Service Center. Each year, numerous locomotives belonging to both European state-owned railway companies as well as small operators are serviced here.

Read the following pages to discover the services of the Rail Service Center.



Rail Service Center Munich-Allach

Facts, figures and data

- 2,000 square meters of covered service shops
- Various work bays for all types of preventive and corrective maintenance activities, refurbishments in separate service shops independent of manufacturing operations
- In-house Bogie Service Center for maintenance of all standard gauge bogies
- 3-point voltage check for multi-system locomotives
- Optimized train operation through retrofitting ETCS solutions
- Additional checks for train protection systems
- Upgrading of air conditioners, fans and e-components
- Bonding and welding certifications
- Service personnel certified according to "Entity in Charge of Maintenance" (ECM)

United at one location with

- 24,500 square meters of covered production area
- engineering and design experts
- manufacturing and commissioning experts
- cross-site logistics and **Spare parts supply**, paint shop and spray system for leak testing

The Bogie Service Center Munich-Allach



Bogies are in best hands at the Bogie Service Center in Munich-Allach. Bogie maintenance and repair as well as wheelset revision and replacement services are all offered under one roof at the Rail Service Center. Technical support is provided by the world's leading center for bogie technology in Graz.

All kinds of standard gauge bogies can be serviced at the Bogie Service Center. The center is equipped with state-of-the-art technology. Parallel to this, rail car body work can be carried out at the neighboring vehicle service hall. All the workflows at the Rail Service Center thus go hand in hand.

Our most important equipment at a glance



Transport vehicleThis is how we quickly get the bogies from one workplace to another.



Disassembly and assembly standsOur extendable hydraulic cylinders
can be used flexibly.



Pressure rig
Here we ensure an even load
distribution of wheel disc on track.



Cleaning cabin Cleaning up the bogies and their components with dry ice.



Storage shelvesThis is how we have all spare parts close at hand.

Success stories

Your satisfaction is important to us!



Accident repair - Cargo Service GmbH

Following a collision in Vienna, the locomotive of the Austrian railway company CargoServ jumped the track and was no longer functional. This made a big hole in the dispatcher's availability list. They needed expert help promptly.

It was very important for the operator to have the repair performed immediately and quickly. One day of downtime means several thousand euros in lost income. Project manager Walter Engelmayer: "The cross-border and cross-group concept we presented with a very ambitious time schedule and truly transparent pricing were key factors in the ultimate decision of end customer CargoServ to have the repair performed by Siemens Mobility or the 'Customer Services' business unit."



Bogie maintenance - Lokomotion GmbH

Within the scope of the "R2 – heavy maintenance" of a 189 (F4) locomotive, the Lokomotion company awarded the Bogie Service Center a contract for bogie maintenance. The experts removed the bogies from the locomotive in order to carry out the revision.

The bogies were cleaned with dry ice blasting and completely disassembled, and their rubber and metal parts were fully replaced or newly pressed in. Upon completion of all the work steps involved, the bogies were readjusted on the pressure rig. The revision of the locomotive body was carried out in parallel right next door. Afterwards, the locomotive and the bogies were joined together once again.



Corrective maintenance - MRCE GmbH

Corrective maintenance was performed on a Siemens ES64F4 class electro-locomotive of leasing company Mitsui Rail Capital Europe GmbH. Various components were replaced and a number of component and functional tests were performed. The result convinced the customer of the Service Center's high level of competence.



"In times when the maintenance of rail vehicles is increasingly seen as a professional and value-added service, competition is essential. In this respect, the Munich-Allach plant stands out for its special synergies."

Rainer Beller, CTO of MRCE GmbH

Siemens Mobility Services

SIMOS® portfolio

Maintenance Services

> Proven solutions for maximum availability and efficiency.

Spare PartServices

Easy and excellent solutions for optimized spare part inventories. **Digital**Services

Smart remote monitoring and data services for maximum reliability. **Upgrade**Services

Expertise to enhance the value of your systems.

Qualification Services

> Certified solutions for testing systems and training customer personnel.

OperationServices

Complete solutions to optimize operation and performance.

You mobilize people and goods – we mobilize rail traffic

Using innovative technologies, we help you make your rail operations even more efficient at all levels.

With this goal in mind, our services include the reliable supply and optimization of spare parts, remote monitoring, diagnostics and anticipatory maintenance, testing and validations as well as the expansion and modernization of your systems and equipment.

With our Railcover® contracts, we put together a customized service package for you.

You expect customized service – we have the answer

Our comprehensive range of services offers flexible, individually tailored solutions. Our service experts are happy to work together with you on fast, reliable solutions throughout the full lifecycle of your trains and infrastructure.

At the Munich-Allach location, we are able to offer you the following services from our portfolio.

Our range of services in the Rail Service Center



Proven On-Site

We offer comprehensive maintenance services according to manufacturer specification for the vehicle fleets Vectron, ES64F4, ES64U4, ES64U2 and Vectron DE.

Thanks to a powerful infrastructure, additionally equipped with a fueling station and contact wire, our highly qualified and ECM-certified service personnel and a reliable and fast supply of spare parts, we keep your downtimes to a minimum and guarantee high locomotive availability.

Our references for preventive and corrective maintenance include, among others, BoxXpress, EGP, ELL, MRCE, and Lokomotion.



Proven Overhaul & Repair

We perform overhauls for the vehicle fleets Vectron, ES64F4, ES64U4, ES64U2 and Vectron DE in accordance with documentation.

The extensive equipment of the Rail Service Center, its in-house Bogie Service Center and its direct proximity to the locomotive plant allow us to offer you component overhauls for bogies, air conditioners, and e-components. With our axle load scale and contact wire we are also able to perform the required function and operational readiness tests.

Our references include, among others, MRCE, PKP and WLC.

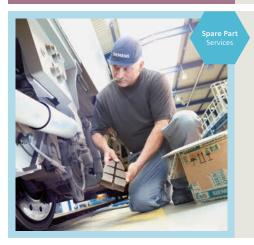


Proven Accident Repair

In the event of damage we are available to help you promptly and reliably. Our services comprise inspection and damage assessment followed by the complete repair process including engineering, surveying, welding/leveling, painting and preparing the commissioning and customer documentation.

To perform these services, we rely on our extensive expertise from vehicle development, our reliable and prompt spare parts supply and our direct access to sand blasting and painting lines.

In Allach, we were already able to provide quick operational readiness for CargoServ following damage caused by an accident. In doing so, we can draw on our know-how and experience from more than 700 completed projects.



Easy Daily Spares

We take care of spare parts which are needed for repairs – thanks to our Easy Daily Spares.

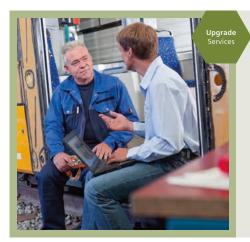
Our references include, among others, CargoServ, EGP, ELL and Lokomotion.



Easy Sparovation Part®

With Easy Sparovation Part, we deliver a great variety of optimized spare parts for your locomotives, such as, tablet PC holders and slides.

To accomplish this, we are using innovative manufacturing methods and IT solutions, for instance Additive Manufacturing. Customized re-engineering and the improvement of material properties result in long-term optimization of spare parts and offer forward-looking obsolescence solutions.



Expert Features

With Expert Features, we offer a great variety of modifications and enhancements for your locomotives, among them an upgraded sand fill level indicator, a snowplow, video rear-view mirror function, remote data transmission, vehicle tracking, energy measurement or trip recorder.

To perform these services, we can draw on extensive know-how from vehicle development and the knowledge of our maintenance experts.



Expert Refurbishment

Our Expert Refurbishment services offer a variety of solutions for your locomotives, such as car body upgrades, bogie and drive unit improvements, safety and security refurbishment as well as retrofits, for instance, for passenger information.

With direct access to sandblasting and painting lines and our Easy Sparovation Part and Expert Features innovations, new solutions can be implemented quickly.

Siemens Mobility Services

We keep the world running.

Investments in new rail concepts have to pay off in the long run and must ensure a sustainable return. This requires effective service concepts. This is the only way to ensure maximum reliability and availability of a transportation system – even extending the service life in the best case.

Siemens Mobility Services are ready to support you as a reliable partner – with experience based on more than 100 years of expertise and the backing of a global network of experts.



How to find our Rail Service Center

If you arrive by plane and train:

To get to the main train station [Hauptbahnhof] from Munich Airport, take the S-Bahn, Line S1 or S8 towards downtown [Innenstadt].

From the Munich main train station, take the S-Bahn, Line S2 towards Dachau/Petershausen. Get off at the "Allach" train station (travel time: about 15 minutes).

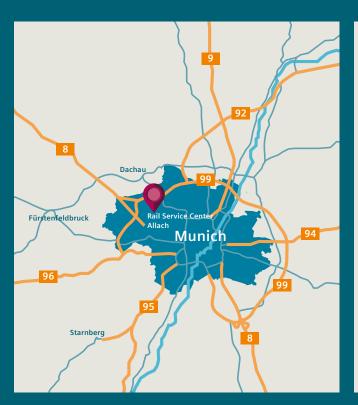
You can see the plant premises from the "Allach" train station.

If you arrive by car:

For easy driving, please use the following information for your GPS:

«Ludwigsfelder Straße, 80997 München».

Then follow the signs to the plant premises. To your left, you will see the visitor parking lot in «Reinhard-von-Frank-Straße 20a» where you can park your car.





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