

TOP 50

Robot Manufacturer

in Germany 2020





Top50 Robot Manufacturer in Germany

Company	Company				Key Figures				Product Portfolio						
Name	ZIP Code	City	Revenue (mn. €)	Employees	fear	inear-Robots	Scara-Robots	Articulated Robots	Santry Robots	Parallel Robots	AGV/ Transport Robots	Collaborative Robots	Special kinematics		
Bosch Rexroth AG	97816		6.200	31.000	2019			Х			Х	Х			
Jungheinrich AG		Hamburg	4.073	18.381	2019						Х				
KUKA AG		Augsburg	3.193	14.014	2019	X	X	Х				х			
Linde Material Handling GmbH		Aschaffenburg	3.430	13.000	2018	<u> </u>					х	^			
SSI Schäfer Fritz Schäfer GmbH		Neunkirchen/Siegerland	1.500	10.000	2017						X				
ABB AG	+	-	2.984	8.135	2017		X	Х		X	^	Х			
		Mannheim					^			^		^			
Dürr AG - Paint and Final Assembly Systems Division		Bietigheim-Bissingen	1.244	3.630	2019			Х		.,					
Multivac Sepp Haggenmüller SE & Co. KG		Wolfertschwenden	491,3	3.052	2018					Х			Х		
Igus GmbH	51147		690,1	2.573	2017			Х							
Peter Pilz GmbH		Ostfildern	329,8	2.302	2018			Х				Х			
Zollern GmbH & Co. KG	72481	Sigmaringen	487,7	2.156	2018	X			Х						
KraussMaffei Technologies GmbH	80997	München	751,2	2.102	2018	Х									
Liebherr-Verzahntechnik GmbH	87437	Kempten	199,3	1.319	2018				Х						
Grenzebach GmbH & Co. KG	86663	Asbach-Bäumenheim	361,2	1.232	2018						Х				
Stäubli GmbH	95411	Bayreuth	273,6	1.063	2018		Х	Х				Х			
Gebr. Schmid GmbH	72250	Freudenstadt	87,6	810	2017					Х					
Dematic GmbH	63150	Heusenstamm	123,7	581	2018						Х				
YASKAWA Europe GmbH	65760	Eschborn	296,7	490	2019		Х	Х		Х		Х			
Carl Cloos Schweißtechnik GmbH	35708	Haiger	119	454	2018			Х							
Gebhardt Intralogistics Group GmbH & Co. KG	74889	Sinsheim	77,2	376	2018						Х				
M. Braun Inertgas-Systeme GmbH	85748	Garching	78,0	357	2019								Х		
Hahn Automation GmbH	55494	Rheinböllen	64,4	350	2018	Х									
Vanderlande Industries GmbH	41066	Mönchengladbach	266,9	312	2017						Х				
Epson Deutschland GmbH		Meerbusch	341,8	296	2019		Х	Х							
HIWIN GmbH		Offenburg	100,3	284	2018			Х							
Wittmann Battenfeld Deutschland GmbH		Nürnberg	101,5	263	2018	X									
Langhammer GmbH		Eisenberg	n.a.	200	2019	X		Х	Х						
Hekuma GmbH		Hallbergmoos	50	200	2018	X									
		-	29,6	191	2019	x									
isel Germany AG		Eichenzell													
Dango & Dienenthal Maschinenbau GmbH		Siegen	34,8	165	2018								Х		
IEF-Werner GmbH		Furtwangen im Schwarzwald	27,0	165	2019	Х									
Trapo AG		Gescher-Hochmoor	27	165	2018						Х				
Güdel Automation GmbH	86720	Nördlingen	60,4	162	2019	X			Х						
E&K Automation GmbH	21224	Rosengarten	24,1	131	2018						Х				
BÄR Automation GmbH	75050	Gemmingen	24	128	2018						Х				
Wälischmiller Engineering GmbH	88677	Markdorf	32	120	2018			Х							
ICO Innovative Computer GmbH	65582	Diez/Lahn	n.a.	120	2020						Х				
Strothmann Machines & Handling GmbH	33758	Schloß Holte-Stukenbrock	20,5	115	2018						Х				
IBG Automation GmbH	58809	Neuenrade	27	114	2018						Х				
Magazino GmbH	80687	München	n.a.	110	2020						Х				
MLR System GmbH	71640	Ludwigsburg	26	100	2020						Х				
EFS Gesellschaft für Hebe- und Handhabungstechnik mbH	74226	Nordheim	n.a.	96	2020	Х									
Safelog GmbH	85570	Markt Schwaben	27	88	2018						Х				
dpm Daum + Partner Maschinenbau GmbH	88317	Aichstetten	n.a.	75	2020						Х				
Schilling Engineering GmbH		Wutöschingen	n.a.	72	2020		Х	Х							
Homag Group AG		Schopfloch	24,6	72	2019						Х				
Engel Automatisierungstechnik Deutschland GmbH		Hagen	16,0	70	2018	X									
InSystems Automation GmbH		Berlin	5,2	65	2018						Х				
GeKu Automatisierungssysteme GmbH		Diepenau	15	62	2018	X									
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Key Figures in blue are estimated



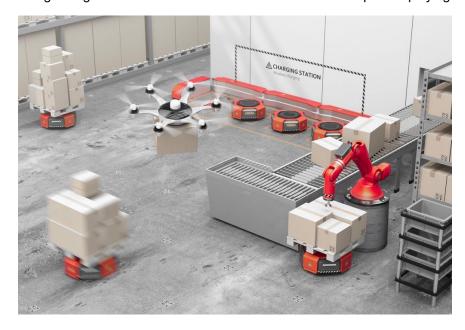
Ranking of the leading robot manufacturers in Germany - the Top 50

With nearly 500,000 units sold annually worldwide, the market for industrial robots will reach a new all-time high in 2019. The trend toward automation is continuing not only in the automotive industry, the most important area of application for industrial robots, but also in electronics manufacturing, mechanical engineering, plastics processing, the chemical industry and the food industry.

In the global competition between suppliers, German manufacturers of industrial robots hold a leading position alongside Japan, the USA and China. Our current ranking "Top50 Robot Manufacturers Germany" shows an overview of the leading manufacturers of industrial robots in Germany.

Top50 Robot Manufacturers in Germany - global players and hidden champions

The analysis of the 50 leading robot manufacturers in Germany shows a dynamic structure: Global players from the fields of automation and logistics such as Bosch, Jungheinrich and Kuka lead the ranking. For these international groups, the fast-growing market for industrial robots has become an important playing field.



However, numerous medium-sized robotics specialists, who have become the world's leading robot suppliers in their specific market fields, follow from as early as rank 20. Last but not least, small to medium-sized suppliers from Germany with fewer than 100 employees can also be found among the top 50 robot manufacturers in Germany. Hardly any supplier currently reports sales and employee figures separately for its robotics division - the key figures presented therefore relate in each case to the company as a whole or the relevant business unit (see also: Methodology on page 6 of the study).

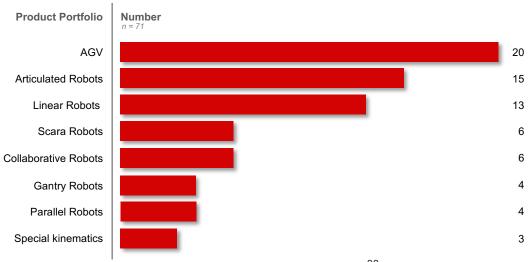
Potential for suppliers: Smart robots need sensors, electronics and software

Attractive fields of application are emerging for suppliers of electronics, sensors and software in the field of industrial robots: drives and gears, cabling, sensors and optics, and networking solutions are just some of the purchased parts that robot manufacturers are sourcing in growing numbers. For example, autonomous driverless transport systems, so-called Automated Guided Vehicles, require extensive sensor technology and networking components in order to be used safely and efficiently in modern warehouses and production environments. Collaborative robots, which work directly with humans, must be able to react in real time to environmental conditions and thus also require the integration of extensive hardware and software. The 50 leading manufacturers of industrial robots in Germany therefore represent a high-growth field of activity for suppliers of numerous sophisticated industrial components.



Portfolio: AGVs, Articulated Robots and Linear Robots lead the way

Note: Number by product segments served, multiple answers possible

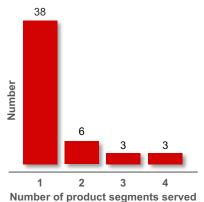


Just under half of robotics companies manufacture AGVs and/or Articulated Robots

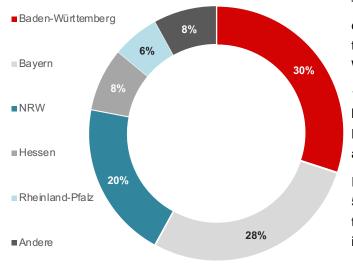
Most of the companies in the TOP50 Robot Manufacturers produce AGVs, jointed-arm robots and linear robots.

More than three quarters of the TOP50 Robot Manufacturers in Germany specialize in the development and production of one type of robot.

However, it should not be forgotten at this point that the manufacture of robots is usually only a part of the company's activities.



Headquarters locations: Baden-Württemberg, Bavaria and NRW dominate



The headquarters of around three quarters of all Top50 Robot Manufacturers are located in Baden-Württemberg, Bavaria & NRW.

12 of the TOP50 Robot Manufacturers have their headquarters in Hesse, Rhineland-Pfalz, Lower Saxony, Berlin and Hamburg.

It is also striking that half of the TOP 50 headquarters are located in small towns with fewer than 20,000 inhabitants.

More than three quarters of all headquarters are located in Baden-Württemberg, Bavaria and NRW.



Top 50 Robot Manufacturer: Headquarters Locations in Germany



Headquarter Top 50 Robot Manufacturer Hersteller

This map has been made or improved in the German Kartenwerkstatt (Map Lab) by the authors Lencer and NordNordWest (Source: https://commons.wikimedia.org/wiki/File:Deutschland_%C3%9 Cbersichtskarte.png); Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, published by Free Software Foundation



Explanatory notes on the study: TOP50 Robot Manufacturers in Germany 2020

General

- The study took into account companies that produce robots with three or more axes in Germany.
- Not included were
 - Manufacturers of components such as drives, grippers, sensors, software or controllers
 - Robot integrators and automation specialists
 - Development service providers and plant designers

Key figures/ Ranking

- The key figures given relate in each case to the company/corporation or business unit specified under "Name" (e.g. Dürr AG Paint and Final Assembly Systems Division).
- The Top 50 were ranked according to their number of employees

Explanations on product segmentation

- Linear Robots consist of a serial, usually right-angled interlinked arrangement of at least three linear axes. They consist of individual guide axes without support and are therefore only suitable for smaller workspaces. However, they have very high dynamics, travel speed and positioning accuracy, but offer only lower feed and holding forces. Areas of application include handling (machine feeding), welding, adhesive application or machining of plastics, wood and light metals.
- Scara Robots (synonymous: horizontal articulated arm robots or swivel arm robots) have one (or two) articulated arms that can only be swiveled in the horizontal direction and usually have four axes and four degrees of freedom. Only movements in vertical or horizontal direction are possible. They are particularly suitable for fast pick & place handling or for adhesive and sealant application as well as laser welding.
- Articulated Robots (synonym: Jointed-arm robots) are three-dimensionally movable robots whose kinematics consist
 of several articulated arm links. Jointed-arm robots are suitable for assembly, handling and processing tasks where a
 high degree of mobility and flexibility is required in a relatively large workspace.
- Gantry Robots are similar to linear robots in terms of their functional principle and therefore also consist of a serial, usually right-angled interlinked arrangement of at least three linear axes. Modular gantry robots can be used to create very large workspaces and handle high loads. For this reason, they are mainly used for handling tasks such as the orderly provision and linking of parts, transfer between conveyors, and packaging and palletizing.
- In a **Parallel Robot** (synonymous: hexapod or delta robot), the gripper platform is guided by three to six linear axes or articulated arms arranged in parallel and mounted in a fixed base. Typical applications of parallel robots are fast pickand-place applications as well as handling, assembly and packaging tasks.
- AGVs (Automated Guided Vehicles) are self-propelled floor-bound in-plant conveyors. A distinction is made between track-guided and autonomously navigating systems. Their main field of application is material transport in intralogistics (e.g. in warehouses or in production).
- Cobots or Collaborative Robots do not have any special kinematics or a defined workspace. This type is characterized by the ability to interact with humans in the production process without endangering them. Humans and machines are not separated from each other by protective devices. As a rule, cobots are 6-axis robots with intelligent software and additional sensors that are used primarily in the production process.
- Special kinematics are, by definition, industrial robots that cannot be clearly assigned to any other robot type.

Sources:

Bundesanzeiger, annual reports, suppliers' websites, Bisnode company database, Orbis - Bureau van Dijk company database, Associations such as IFR and VDMA, trade fairs (e.g. Automatica, Hannover Messe), press releases

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About

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PROFILE: SPECIALIST FOR INDUSTRIAL MARKET ANALYSIS FROM MUNICH

MEYER INDUSTRY RESEARCH from Munich specializes in customized market analysis, market studies and specific market research for industry and B2B sectors (automotive, engineering and electronics).

EXPERTS FOR MARKET ANALYSIS FOR OVER 10 YEARS

In 2007, founder Matthias Meyer and his team began systematically analyzing markets, competitors, customers and trends under the umbrella of the predecessor company RESEARCH-FELLOWS in Munich.

In mid-2015, the company was renamed MEYER INDUSTRY RESEARCH. Since then, we have been focusing entirely on sophisticated market analyses in B2B and industry as a small team of specialists.

MARKET ANALYSIS AND MARKET RESEARCH FOR THE AUTOMOTIVE INDUSTRY

MEYER INDUSTRY RESEARCH provides strategic market analyses and individual market studies for OEMs, suppliers and service providers in the automotive sector. An automotive market analysis by MEYER INDUSTRY RESEARCH highlights, for example, market volume, market potential, competitors, target customers as well as success factors and trends in the market.

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A personal and trusting cooperation with our customers is our top priority. According to the Dalai Lama, cooperation can always succeed when the happiness of the other person is close to one's heart. This principle is the guiding principle for founder Matthias Meyer and his market analysis team in Munich.

Because we know that our market analyses are often the basis for far-reaching business decisions, we attach great importance to the high quality and resilience of our analysis results. You benefit from our experience of more than 300 realized market and competition analyses in the industrial sector.

Matthias Meyer and his market analysis team, based in Munich, will be happy to answer your inquiries personally.