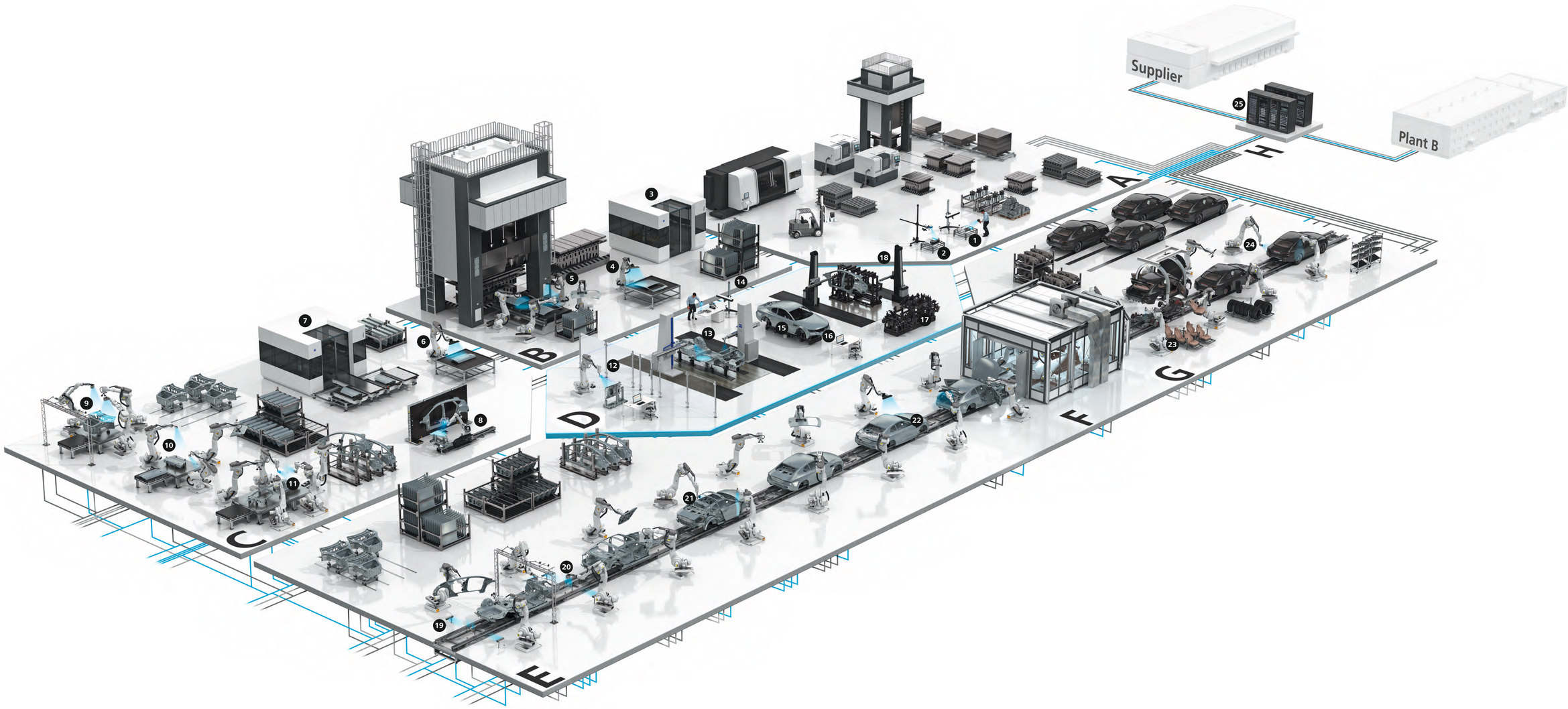
ZEISS Car Body Solutions



A Toolmaking

1 ZEISS T-SCAN Scanning System
Manual 3D digitization of the press part mold with a hand-held scanner and tracker.

2 ZEISS COMET
At-line 3D analyses of individual press part molds.

B Press Shop

3 ZEISS AIBox
Full-surface digitization, measurements of functional dimensions and features along with CAD comparisons – at-line.

4 ZEISS ABIS At-line
Random sampling for surface inspections of pressed parts – at-line.

5 ZEISS ABIS In-line
100% inspection of pressed part surfaces in the press line.

C Component Manufacture in Car Body Construction

6 ZEISS ABIS
Random sampling for surface inspections of hang-on parts like doors, hoods, trunk lids and fenders using a robot-based sensor.

7 ZEISS AIBox with ZEISS Loading System
Full-surface digitization. Manual loading system comprises pallet tables and modular fixtures for hang-on parts.

8 ZEISS AIBox flex and ZEISS Fixture Systems
Robot-based modular measurements and digitization of side parts and fenders.System comprises the optical sensor ZEISS COMET Pro AE, a seventh axis and a rotary table.

9 ZEISS AICell trace with AIMax cloud
Correlation-free in-line measuring cell for real-time process monitoring of complex characteristics and ramp-up support starting with the first manufactured part.

10 ZEISS AICell with AIMax cloud
In-line measuring cell for 100% real-time process monitoring of very complex characteristics like welded nuts behind sheet metal or rivets.

11 ZEISS AICell with AIMax
In-line measuring cell for 100% real-time process monitoring of complex geometric characteristics with maximum robustness.

D Series and Analysis Measuring Center

12 ZEISS AICell with AIMax or AIMax cloud
Offline station for programming new models, versions and measurement points without interference of the ongoing production process.

13 ZEISS PRO with ZEISS EagleEye
Analysis, correlation and series measurements of body shells, hang-on parts as well as analyses of finished vehicles with the multi sensor measuring system, tactile and optical sensor ZEISS EagleEye – offline in the measuring center.

14 ZEISS T-SCAN Scanning System
Manual 3D digitization with a hand-held scanner and tracker – offline.

15 ZEISS External Matching Equipment
Qualify and optimize assembly sequences and the individual parts, optimize flush and gap, ensure viability and suitability for assembly.

16 ZEISS CALIGO
The ZEISS offline software for freeform surfaces, digitization, simulation and analysis in car body construction. Meanwhile, the integrated ZEISS PiWeb software ensures professional reporting.

17 ZEISS Matching Equipment for Assembly
Qualify and optimize joining sequences and the individual parts, optimize flush and gap, ensure viability and assembly capabilities.

18 ZEISS CARMET
Analysis and correlation measurements on body shells and hang-on parts as well as finished vehicle analysis with tactile sensors – offline.

E Complete Car Body

19 ZEISS In-line Fixed Sensors: ZEISS AIMax In-line und ZEISS BestFit
Fixed sensors enable solutions for a wide range of measuring jobs, including extremely quick feature measurements, position detection and production control tasks.

20 ZEISS AICell trace with AIMax cloud
Correlation-free in-line measuring cell for real-time process monitoring of complex characteristics and ramp-up support starting with the first manufactured part.

21 ZEISS AICell with AIMax
In-line measuring cell: capture gap and flush on the entire car body with attached parts like doors, fenders, hood and trunk lid.

22 ZEISS ABIS In-line
100% surface inspection of the entire car body – in-line.

F Paint Work

23 ZEISS AICell with AIMax
In-line measuring cell once paint work is completed: capture flush and gap on the entire car body with mounted parts like doors, fenders, hood and trunk lid.

G Final Assembly

24 ZEISS AICell with AIMax
In-line measuring cell in final assembly: capture gap and flush on the finished vehicle on wheels.

H Quality Data Networking

25 ZEISS PiWeb / PiWeb cloud
Visualize, store, analyze, exchange and network measurement data anywhere, even at different global sites.