

## AUTOGRAPH CAD PACKAGE DRAWINGS

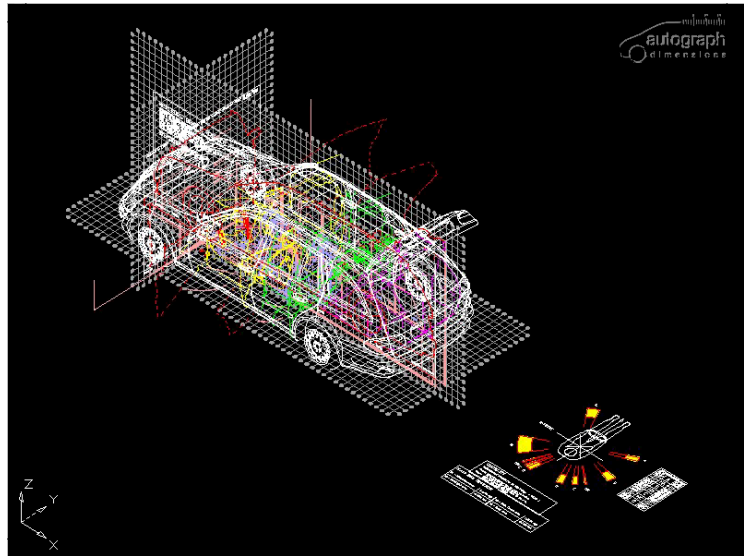
### Measuring

Autograph provides independent Package Data produced serially for the latest automobiles of various manufacturers. Using modern 3-D coordinate measuring systems and adhering to international standards (e.g. SAE J 1100) we produce measurements for approximately 40 cars from series-production per year. Additionally, the Autograph archive contains the comparison data of more than 1000 different car models.

Our standard measuring program includes exterior, interior, luggage capacity, and vision dimensions as well as the various load-dependent measurements. For the interior measuring we make use of the H-point machine. This standard measuring thus provides some 200 defined dimensions of each vehicle.

### Autograph CAD-Package

In the CAD Package Drawings the vehicle's geometry is represented by splines and cross-sections,, which can be viewed from different perspectives. A CAD drawing is separated into different layers and the IGES format allows for flexible use on every CAD system. The file size is, between 2 and 4 MB, depending on the size of the vehicle. The original format is PRT.



### Content

#### Exterior

► body section at  $Y=0$  incl. roof rail ► contours and slits ► windscreen and backlight with daylight opening ► door openings and tailgate opening incl. seals ► area around front and rear bumper ► rear part of exhaust system ► ground lines and tires: M1 – curb mass, M2 – design mass, M3 – gross vehicle weight ► front and rear wheels at curb mass condition incl. rims ► Y-section of headlights/fog lights ► fuel filler cap ► X-section of front and rear wheel centers ► section at  $X=0$  vehicle silhouette at widest dimension ► wiper field ► driver's and passenger's mirror ► Autograph frame: specifications of vehicle type, manufacturing location, engine and type of drive, weight and set of tires. ► Autograph frame: angles of departure and approach, accelerator heel point, steering wheel center, SgRP, frontal area

#### Interior

► section at  $Y=0$  of the dashboard ► middle console ► roof ► parcel shelf in open and closed positions ► rear view mirror ► seat travel ► reclining point driver's seat ► X/Y-section through driver's SgRP ► seats ► instrument panel ► inner roof ► floor ► sill ► seat contours ► Y-section through passenger's console ► X/Y-section through second/third SgRP ► clutch, break, and accelerator pedal in all positions ► gear shift lever and parking break lever in all positions ► steering wheel in all positions ► folded rear seats ► floor below back seat ► seat back adjustment ► headrests in all positions ► floor at Y-position for driver's accelerator foot and for right foot of rear passenger (second seat) ► X-section through head contour of driver's SgRP and of SgRP of passenger at second/third seat ► X-section 330 mm in front of driver ► X-section 330 mm in front of second/third seat ► sill/roof contour

▶ maximum sinking of side window fond ▶ location and size of spare wheel pan ▶ location and capacity of fuel tank ▶ section Y=0 at luggage cover ▶ luggage compartment floor ▶ tailgate opening ▶ X-section wheelhouse/ground with smallest wheelhouse contour ▶ X-section at widest luggage compartment place ▶ width specifications of luggage compartment in mm for significant points ▶ section Y=0 at engine compartment/firewall ▶ Z-section 635 mm above SgRP through pillars and windows (inside and outside) ▶ Z-section at driver's knee point height ▶ driver's seat belt lock ▶ door entrance ▶ opening angles of doors

#### H-Point Machine

▶ 95th percentile SAE manikin on driver's seat in SgRP position with an foot angle of 87° while foot is touching accelerator pedal and the torso angle is 25° at XZ/YZ ▶ 95th percentile SAE manikin on second/third seat in SgRP position while foot is in contact with driver's seat at XZ/YZ ▶ for smaller vehicles 50th percentile or 10th percentile SAE manikin on second/third seat with driver's seat moved forward at XZ/YZ ▶ head position contour template ▶ driver's eyellipse locator template

#### Front-, Side-, and Vision Dimensions

▶ dimensions at YZ ▶ dimensions at XZ and ZX/ZY ▶ vision dimensions: blind angles 635 mm above SgRP incl. diagram ▶ glass area dimensions

#### Product Forms

- Autograph Package in **3D** – shows the vehicle's geometry in the three dimensional space.
- Autograph Package in **2D** – side view, front/rear view, top view.
- Autograph Comprehensive Package in 2D – just as Package in 2D but without dimensioning and without vision dimensions.

Please also have a look at the information sheet of the **Autograph Surface Product!**

#### Delivery

We provide our data quickly and conveniently by e-mail or download. Large orders we send on CD-ROM or DVD.

For automobile manufacturers, we recommend our convenient **subscription service** in which we automatically supply data updates as soon as a new vehicle geometry is available.

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