HOFMANN®

geodyna® OPTIMA

The Fully Automatic Wheel Balancer
with 3D Laser Technology

OPTIMUM USE OF LASER TECHNOLOGY

What is the geodyna™ Optima?

- The geodyna Optima is a diagnostic wheel balancer using a patented non-contact laser technology. The geodyna Optima has automatic features that allow the operator to clamp the wheel, lower the wheel guard and have all the data (wheel width, distance, and height, lateral run-out, number and location of spokes, unbalance) measured without the need for the operator to touch the wheel.

- The geodyna Optima solves the ride performance issues of the wheel thanks to an enhanced geometric matching feature


geodyna™ Optima Technical Features

- **Automatic Wheel Clamping**
  The wheel is clamped automatically with the patented Power Clamp system. This ensures the wheel is always correctly centered and clamped.

- **Automatic "Touchless" Data Entry**
  All wheel data (distance, diameter, width) is measured by non-contact technology so that NO manual operation is required.

- **Automatic "Touchless" Run-out Measurement**
  - Radial and lateral wheel run-out for the left side
  - Radial and lateral wheel run-out for the right side
  - Radial run-out of tire/wheel assembly
  - Radial run-out of bead seat on the wheel (if wheel only is measured)

- **Automatic Wheel Weight Placement Selection**
  Automatic selection of the wheel weight placement mode including the appropriate ALU mode to avoid wrong input by the operator.

- **Automatic Selection of Correction Planes**
  Wheel weight location for tape weights (ALU program) is taken from the internal database. Relocation to the correction plane to attach tape weights is performed by either the geodata gauge arm, or by the laser pointer (needs to be set by the operator)
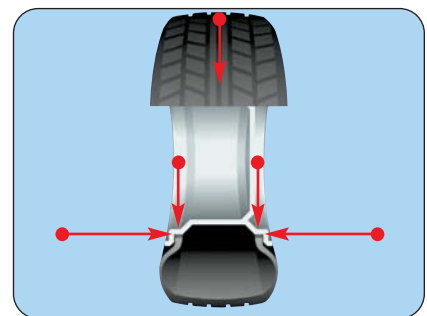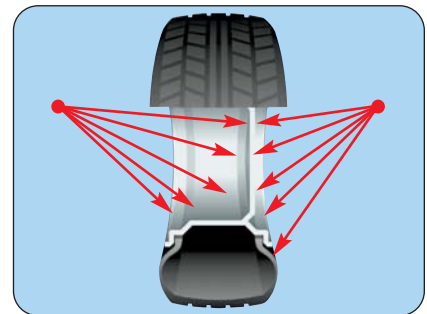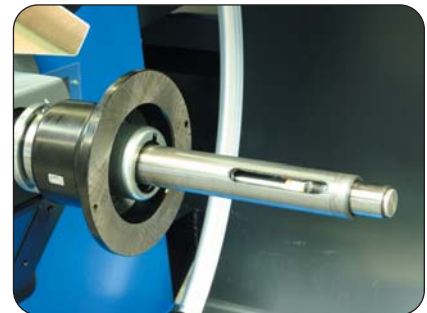
FEATURES AND ADVANTAGES

- **Wheel-only Measurement**
  The geodyna Optima recognizes when only the wheel has been mounted, and automatically measures radial and lateral run-out of the wheel. The measured data in addition to the high point of the wheel are viewed on the screen and can be documented on the print-out using the optional printer.
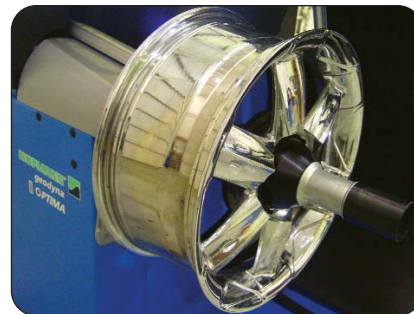
- **Automatic Spoke Function**
  The geodyna Optima automatically counts the number of spokes and keeps track of the spoke locations on the wheel - making the Hidden Spoke Placement (HSP) mode a user-friendly feature. Simply press a function key to enable HSP service.
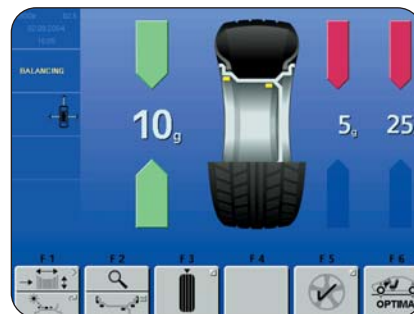
- **Advanced Diagnostics**
  If the geodyna Optima's scanner and sensor measurements exceed threshold values, the diagnostic screen automatically displays. This screen shows the possible percentage of reduction to unbalance caused by run-out, and indicates if the wheel needs to be matched. The proposed matching procedure is clearly highlighted.
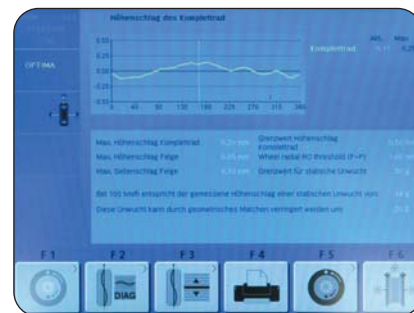
- **Geometric Matching**
  The input is fairly simple:
  - Enter valve position.
  - Provide a mark on the tire as indicated by the balancer.
  - Match tire and wheel accordingly on the tire changer.
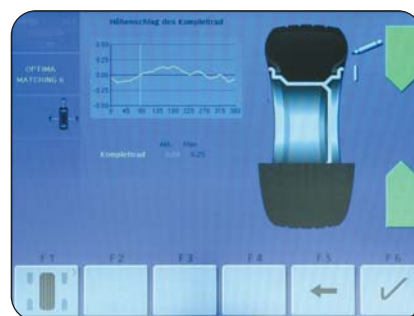
- **Tread Depth Indication**
  With every measurement performed in Optima mode, tire tread depth is measured automatically. An icon indicating whether tread depth is OK, critical, or out of tolerance will appear on the screen with respect to a preset threshold. This is a great feature that will help you sell tires at the right time!
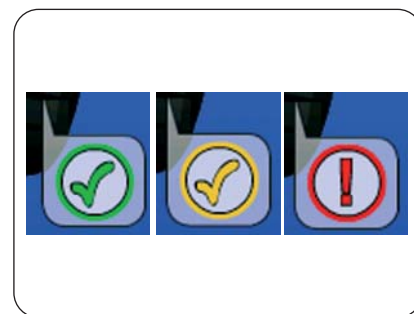
FEATURES AND ADVANTAGES

Comprehensive Diagnostic Functions

- Graphic illustration of radial run-out (complete tire/wheel assembly)
- Graphic illustration of radial and lateral run-out (both sides of wheel)
- Reading of preset threshold values
- Reading of radial run-out (complete tire/wheel assembly - 1st harmonic)
- Reading of radial run-out (wheel - 1st harmonic)
- Reading of lateral run-out (complete tire/wheel assembly - 1st harmonic)
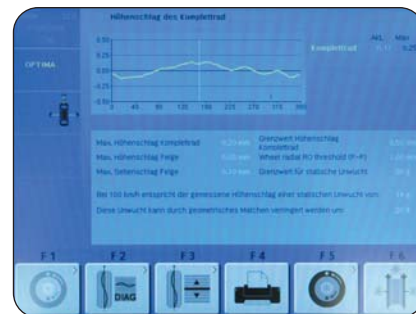
Weight Wizard*

- Weight Wizard Wheel Weight Management Software tracks both the types of weights and weight sizes that are actually being used. Knowing the most popular usage, the shop can tailor the weight purchasing requirements by location and avoid excessive expense and waste.

- The inner scanner determines the wheel profile for the weight type as defined by industry recognized standards for clip weight type. The clip shape and weight color code is indicated across the top row of the weight usage chart. Weight amounts are listed along the side. Upon un-clamping the wheel, the weight type, including both clip type and adhesive weight type, and weight amount are written to the Weight Wizard weight usage tracking file.

Optional WeightMiser™ Software

- Optional WeightMiser™ software determines the possibility of reducing static and dynamic imbalance below the given thresholds using a single weight. If a single weight approach is feasible, then it is recommended. If not, then two-weight balancing is recommended with amounts lower than precision balance recommendations.
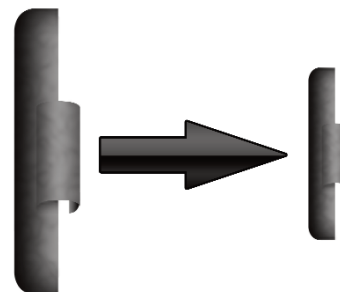
- WeightMiser also features a Weight Savings screen. This screen is a counter that tracks WeightMiser savings. It accepts input for dollar amounts on the cost of tape and clip type weights (by the pound) and runs daily and cumulative totals, for instant reviews of your savings!

Patented and/or Patent Pending Features

THREE LASER UNITS WITH CCD CAMERAS

- The geodyna Optima uses 3 integrated lasers in combination with CCD cameras. Combining laser technology with CCD technology is perfectly suited to clearly identify the surface of wheels currently in the market, which varies from dark, dirty, black, to shining chrome.
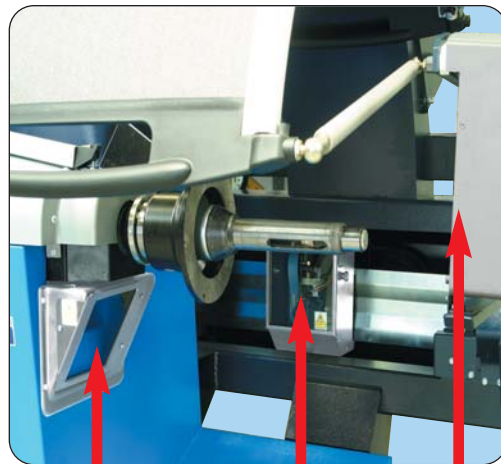
Left scanner   Rear scanner   Right scanner

OPTI LINE ™
Tire Pull Index (Optional)
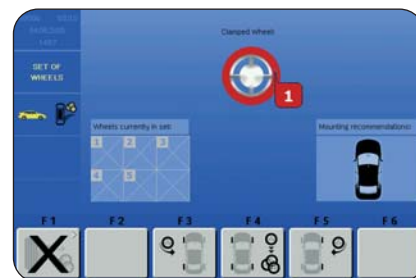
- (EAK0221J38A - Optional) This feature for balancing & optimizing a set of wheels allows the geodyna Optima to measure and save wheel data for up to five wheels. When the rear scanner scans the tire surface, the measurements are used to determine the tire's pull index. The geodyna Optima proposes the best possible position for each wheel on the vehicle so that tire pull is compensated for axle by axle.

- (EAK0221J39A - Optional) Print-out reports with the ink-jet color printer.

Standard Features

- Virtual Plane Measurement technology (VPM)*
- Automatic "Touchless" entry of distance*
- Automatic "Touchless" entry of diameter*
- Automatic "Touchless" entry of width*
- Automatic "Touchless" measurement of radial and lateral run-out*
- Automatic selection of weight placement mode*
- Automatic selection of correction planes
- Laser pointer or geodata gauge arm*
- Auto Lock System for geodata gauge arm*
- Split weight mode HSP
- Geometric matching*
- Automatic braking of wheel after measurement
- Automatic orientation of wheel into correction position after measurement
- Pedal operated main shaft lock
- V-belt motor drive for constant speed
- Power Clamp*
- 17" Color LCD Flat-screen
- ASANetwork Compatible
- Full wheel guard
- Installation is possible directly near a wall

17" color flat-screen for accurate display of all measured data

Specifications	
Centering Cone range	1 ⅝" - 4 ½"
Shaft diameter	40 mm
Measuring speed	200 rpm
Wheel Width	1" – 20"
Wheel Diameter	8" – 30"
Max. Wheel Assembly Width	21"
Max. Wheel Assembly Diameter	38"
Max. Wheel Assembly Weight	150 lbs
Dimensions W x D x H	48 x 54 x 68
Weight	400 lbs.
Power Requirements	240V, 1Ph, 60 Hz

The drum cushion required to clamp the wheel - within easy reach and properly stored.

Optional Accessories	
7 Piece Tapered Cone Set (1.7" to 6.3")	EAK0221J31A
Lt. Truck Cone Kit for ½, ¾, and 1 Ton (4.25" - 6.85")	8100068
Truck Cone Kit for ¾ and 1 Ton (7.7" - 8.75")	2401776
Universal Front-mount Lugnut Adapter (3, 4, 5, 6, & 8-stud)	8100006
70mm Standard studs, use with 8100006 (set 5)	2402263
73mm Spring-loaded studs, use with 8100006 (set 5)	2402266
80mm Truck studs, use with 8100006 (set 5)	2402262
80mm Porsche studs, use with 8100006 (set 5)	2402265
8" Alloy Pressure Cup	6415368

⚠ CAUTION
LASER RADIATION - DO NOT STARE INTO BEAM

MAX. OUTPUT LASER RADIATION: 1mW
MAX. PULSE DURATION: 5 m SEC
EMITTED LASER WAVE LENGTH: 650 nM

CLASS II LASER PRODUCT

HOFMANN®