

## **ELLIPS BV OF EINDHOVEN, HOLLAND – [www.ellips.nl](http://www.ellips.nl) – IN SOUTH AFRICA**

### **Leading global supplier of electronic and vision software for quality fruit grading.**

**HISTORY** Ellips was formed in 1989 by two graduated students from the University of Eindhoven, Holland - they shipped their first vision grading system in 1990.

**TODAY** Over 1500 systems have been supplied worldwide grading all fruit types. This includes weight and vision software technology including high resolution quality grading. Quality grader manufacturers worldwide are increasingly fitting Ellips electronic and vision systems.

**STAFFING** Ellips now consists of 25 employees in Eindhoven, 12 of them with technical university degrees. Continual development takes place in fruit grading weight and vision technology ensuring Ellips users of the best current and future grading technology growth path and back up.

**INSTALLATION AND SUPPORT** Direct contact with experts on the technical side of the EFG400 program is available on line. The program can be controlled remotely for set up or support as required.

**SOUTH AFRICA** Full service is available and systems shown above in SA are an 8 laner for citrus, 2 lane x 115mm pitch hi speed for stonefruit, apples and citrus, plus an 8 laner for apple grading.



We are in a position to offer you either complete new fruit sizers or retrofit this advanced and reliable weight and vision technology on to your existing graders with resultant cost savings.

Please give me a call for further information or to advise you in this regard.

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**FRUIT SIZERS & ALLIED**

## **EFG400 fruit and vegetable grading system**

**The EFG400 system is capable of measuring weight, color, dimensions (e.g. length, diameter, curvature) and other product properties such as defects, blemish, stalk and reflection.**

Using an intuitive graphical user interface, running on Windows XP Embedded, the system can easily be configured and maintained. Measurements and images of the products can be viewed in real-time, allowing direct control and modification of the grading process.

Statistics over the grading process are gathered for later usage with, for example, tracking and tracing software or the EFG400 Statistics Web interface.



## System Highlights

- Low cost / high performance
- Capable of grading on up to 24 lanes simultaneously
- Speeds of up to 25 cups/second per lane
- Grade on: weight, length, diameter (min / max / average / percentage), curvature, color (average / percentage / pixel), quality (defects / blemish / stalk / navel / mould / scratches), reflection, asparagus flower and more.
- In-house developed hardware for optimal system performance and operability, e.g. profibus I/O, frame grabbers
- User-friendly interface that allows easy modification of the grading process
- Direct feedback of measurements for easy adjustment of grading parameters
- Total surface area coverage of the fruit
- Real-time communication with sensors and actuators via Profibus
- Sophisticated algorithms for feature detection based on scientific research (e.g. defects, blemish, stalk).
- Remote support via internet or private network (modem / ADSL / satellite)
- Multiple (office) computers running the user interface application can connect to the same grading machine
- Control of packaging machines via extended exit control signals
- Support digital camera's via Firewire for high resolution images
- Advanced color camera calibration options for optimal color accuracy
- Prepared for tracking and traceability software

### system overview

