

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

**Artisan Technology Group**
(217) 352-9330 | sales@artisantg.com | artisantg.com

**Full-service, independent repair center**
with experienced engineers and technicians on staff.

**We buy your excess, underutilized, and idle equipment**
along with credit for buybacks and trade-ins.

**Custom engineering**
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

**Expert team | Trust guarantee | 100% satisfaction**

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Spark Holland 920* at our website: *Click HERE*

# ENDURANCE

0053.700-02
May 1998

## Technical Specifications:

***Sample Capacity:***
*1 well plate (128x86 mm )*
*+ 4x10 ml vials for reagents, diluents and transport liquid.*
***Well plate dimensions:***
*96 well plate.*
*96 deep well plate.*
*384 well plate.*
*48 autosampler vials 1.5 ml.*
***Plate detection:***
*Missing plate detection by plate sensor.*
***Plate fixation:***
*Integrated fixation of the well plate when leaving the well.*

***Injection volumes:***
*0.1 µl – 1 ml, with 0.1 µl increment*
***Injection methods:***
*Full loop injections, partial loopfill injections, µl pick-up injections (without sample loss).*
***Replicate injections:***
*Up to 9.*
***Analysis time:***
*Max 10 hr.*
***Needle wash:***
*User programmable; 300 - 9999 µl. Separate needle wash port and waste.*
***Wash solvent:***
*250 ml integrated wash solvent bottle.*
***Dispenser unit:***
*100 µl, 250 µl (standard), 500 µl or 1000 µl syringe.*
***Headspace pressure:***
*Approx. 0.05 MPa. (No external pressure source required!).*
***Switching time injection valve:***
*< 100 msec.*
***Cycle time:***
*< 1 min, well to well.*

### Analytical performance

***Precision:***
*Full loop injections:*
*RSD ≤ 0.3%.*
*Partial loopfill injections:*
*RSD ≤ 0.5% for injection volumes > 5 µl.*
*µl pick-up injections:*
*RSD ≤ 1.0% for injection volumes > 5 µl.*
***Carry-over:***
*< 0.01% with needle wash.*
***Minimum sample volume:***
*Partial loopfill injections: 25 µl.*
*µl pick-up injections: 5 µl.*

### Programming

***Methods:***
*Routine operations. Injection-, wash- and time based methods.*
***Advanced operations:***
*Mix methods (Mixing, diluting and pre-column derivatization), User definable program (Extended programming flexibility for special sample preparation routines).*
***Samples:***
*Priority wells and calibration wells.*
***Series:*** *(Run sequence)*
*Well numbers, method types.*

### Communication

***Outputs:***
*Inject marker (contact closure and TTL), Well marker (contact closure and TTL), Labeled well marker (contact closure and TTL), Stop I/O (contact closure and TTL), 4 Auxiliaries (contact closure), Alarm output (contact closure), 4 bit output (TTL), 2 Programmable outputs (contact closure).*
***Inputs:***
*Next injection, Next well, Freeze, Stop I/O, 4 programmable inputs (all TTL).*
***Serial interface:***
*RS 232C; with SparkLink protocol.*

### General

***Power requirements:***
*115 Vac or 230 Vac +15/-20%; 50/60 Hz; 250 VA.*
***Size:***
*(W × D × H) 280 × 400 × 440 mm, 11 × 15.7 × 17.3 inch.*
***Weight:***
*22 kg (48 lbs.).*
***Production quality:***
*ISO 9001 certified manufacturing.*
***Safety:***
*In accordance with IEC 1010.*
***EMC:***
*In accordance with EU directives ("CE").*
***Sound pressure level:***
*LeAq < 70 dB*
***Working temperature:***
*5 – 40 °C, 20-80% RH*
***Storage temperature:***
*-25 – +60 °C*
***Sample viscosity:***
*0.1 – 5 cP.*

## Ordering Info:

***ENDURANCE:*** *(SP920.000) Autosampler.*

***MISTRAL:*** *(SP880.050) HPLC column thermostat to be used in combination with the Endurance Autosampler.*

***MISTRAL:*** *(SP880.051) Peltier cooled HPLC column thermostat to be used in combination with the Endurance Autosampler.*

### User installable options:

***Sample loops:***
*Various sample loops in the range from 5 µl to 1 ml.*
***Syringes:***
*100 µl syringe.*
*250 µl syringe.*
*500 µl syringe.*
*1000 µl syringe.*
***PC Control:***
*MS Windows™ oriented software package running under Windows 3.1x/95/NT.*

### Factory installed options:

***Feeder:***
*Extension in front of the autosampler. An integrated transport system with additional capacity of 6x96/384 well plates or 2x96 deep well plates.*
***Sample tray cooling:***
*Peltier type cooling in processing unit. Range: 4 - 40 °C (Cooling capacity 20 °C below ambient.).*
***Integrated Stream Switching:***
*Autosampler equipped with single six-way valve.*
***Biocompatible version:***
*Autosampler with a PEEK sample needle and a Biocompatible injection valve.*
***Biocompatible ISS:***
*Bicompatible version with single Biocompatible valve.*
***Solvent Selection Valve:***
*Autosampler with integrated six-port solvent selection valve.*

HOLLAND Spark INSTRUMENTEN
P.O.BOX 388, 7800 AJ EMMEN, THE NETHERLANDS, PHONE (31) 591 631700, FAX (31) 591 630035, E-MAIL SALES@SPARK.NL, WEBSITE WWW.SPARK.NL
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

**Artisan Technology Group** is an independent supplier of quality pre-owned equipment

## Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

## We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

## Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP