

# MORE SAFETY FOR YOUR APPLICATION

SPECTRA INDUSTRIAL PC





## IN THE INDUSTRY, YOU CAN'T AFFORD DOWNTIME

### **RELIABLE IPC SOLUTIONS**

Availability, availability, availability – this is the main criterion for an industrial PC. Because maximum productivity requires maximum reliability.

Off-the-shelf solutions don't help here. It's all a matter of coming out of the abundance of all components that have to be selected, to meet industrial quality requirements perfectly. It is not just a matter of simply screwing the housing, board and memory together — but of using a lot of experience to develop an efficient system that optimally meets the tough industrial requirements.

### **SURE**

- 3D measuring machine for vehicle construction
- Adhesive robot for inserting windscreens in the automotive industry
- Measuring systems for vehicle tests
- Transmission test benches in vehicle and aircraft construction

### **DEPENDABLE**

- Marking and embossing machines
- Ink density control of printing machines
- Material flow systems in the cement industry
- Equipment for plastic welding
- Scanner system for woodworking
- Control systems for evaporation plants

### **AVAILABLE**

- Test system for filter connectors
- Measured value acquisition in materials testing
- Systems for wiring, function and safety testing
- Control of systems in building services engineering





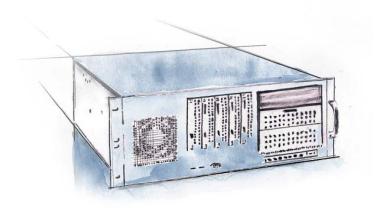




## AN INDUSTRIAL PC IS ONLY AS GOOD AS THE CONSULTING BEHIND IT

"In order to get an optimal industrial PC, you only have to select the appropriate components". What sounds simple at first can be quite complicated in detail: After all, what are the right individual parts?

Who supplies industrial components? And do they fit together perfectly? Many questions, and always one answer: Spectra. Because at Spectra you are always looked after by experts.



## AT SPECTRA, ADVICE, PRICE AND PERFORMANCE ARE RIGHT

Those who have demanding applications need selected good solutions.

This can only be achieved through good advice and a high level of professional competence.

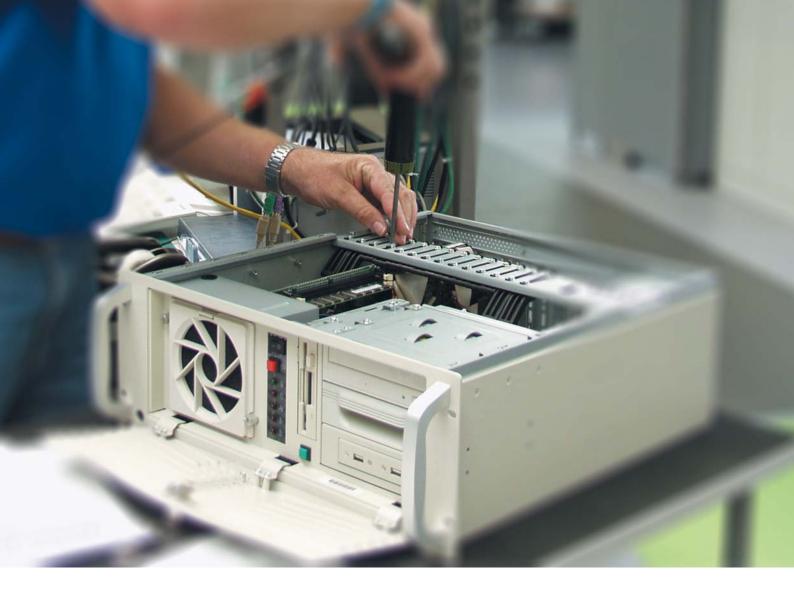
How quickly can a system be delivered? What about special requests? What is the price/performance ratio? What happens in case of an error?

### **EXPERIENCE**

Spectra knows the answers to these questions. We have been successful in the field of industrial computer applications for over 30 years. In thousands of industrial applications we have proven our efficiency and our high quality standard. Year after year, we have gained experience from which you can particularly benefit.

## **SPECTRA ADVANTAGES AT A GLANCE**

- High level of consulting competence
- · Competence in development and production
- Highest quality standard
- High-quality components
- Long-standing relationships with international suppliers
- Attractive conditions



## IN 6 STEPS TO THE OPTIMAL INDUSTRIAL PC

## DESIGNED TO REQUIREMENT - FROM 1 TO 1,000 PIECES

90 % of all applications can be solved with standard components.

But what about the remaining 10 %? When individual adaptation is required? Who has the know-how and the means to fulfil such wishes?

The answer: Spectra. Whether it is the design of a front in your corporate design, the construction of a particularly efficient cooling system or the design of a tailor-made computer board: We deliver the 100 % solution. And it is precisely this all-embracing service that sets us apart from many others.

1 | NEEDS ANALYSIS

In order to specify your optimum system, our experts first clarify all relevant questions with you regarding the ambient conditions, the application, the special boundary conditions with regard to interfaces, the mass flow rate, the graphics and processor performance.

SYSTEM PROPOSAL

Based on the needs analysis, we work out a proposal for you for a customized tailor-made system.

These system proposals can consist entirely of standard components or, if required, can include components specially manufactured for you.

## **EVERY INDUSTRIAL PC SHOULD BE MADE-TO-MEASURE**

Every application is different. Every environment is different. But the requirement is always the same: reliability. Every industrial PC must therefore be designed a little differently: so that it is perfectly configured for the applicaOur experts therefore ask you first and foremost about the exact application, the ambient conditions and the technical requirements. To work out a solution based on this that is specifically tailored to your application.

SYSTEM DECISION

The decision then matures in dialogue with you. If necessary, you inform us of any changes you wish to make to the solution we proposed. We modify the configuration accordingly in order to create a cut IPC system that is exactly tailored to your needs.

**SCHEDULING** 

After receipt of your order, the production process starts with a careful production planning. A production order is created in the order system, a serial number is ejected by the planning software, the availability of the components for the system is checked, delivery times are clarified and the production of special components is initiated.

**ASSEMBLY** 

The system components are picked in the logistics centre according to the production plan. Production is carried out by qualified personnel and according to strict quality specifications. All installed components are provided with a serial number and are listed in the production order with the serial number of the complete system.

**QUALITY CONTROL** 

After completion of the assembly, the system is subjected to a 100% functional test. The IPC is operated for at least 24 hours under a very high system load in order to detect faulty components with a high probability. After completion of the test, a quality certificate is issued, which is enclosed with the finished system.



## WE KNOW THE MARKET AND HAVE THE STANDARDS

Spectra offers a very wide range of standard products. 90 % of all requirements can normally be met with Spectra. If a specific component is not included in our standard product portfolio, our more than 30 years of experience in the market will be of help.

Because we at Spectra know almost all manufacturers. We know about their quality, strengths and weaknesses and know the competent contact persons.

Only a few days later, the necessary component is in our company.



MINI PC CHASSIS – SPECTRA POWERBOX

# IPC FROM STANDARD COMPONENTS: THE LOW-COST ALTERNATIVE

A particularly low-priced industrial PC consists of standard components - Special solutions are always a little more expensive.

This is why we operate our IPC "Component

Store" as a "second pillar".

There we stock a wide range of different standard components: various IPC chassis types, computer boards, graphics cards, processors, network products and I/O cards.

## THE RIGHT TECHNOLOGY - EX STOCK

- 1 | PERFORMANCE Processor type, Chipset
- **2 | TECHNICS** Backplanes, Motherboards
- **3 | DRIVES** Capacity, quantity, Type, RAID, DVD, Flash
- 4 | GRAPHICS Display type, resolution / speed
- **5 | PORTS** I/O, USB-Ports, serial, network
- **6 | OPERATING SYSTEM** Windows, Linux, Realtime OS etc.
- **7 | POWER SUPPLY** Performance, Redundance, if necessary UPS
- **8 | CARDS** I/O, Control, Measurement, Audio, etc.



**DISPLAY SOLUTION - SPECTRA SILENT WDL** 





COMPACT CHASSIS - SPECTRA-COMPACT

## **IPC FROM STANDARD COMPONENTS: MINI-PC SPECTRA POWERBOX**

The Spectra PowerBox series offers Mini-PC for use in industry, digital signage, image processing, IIoT, and many more.

The boards integrated in the system are always equipped with the latest Intel® embedded chipsets. Thus, the Spectra PowerBox is always up to date.

- · Robust Mini-PC in attractive industrial design
- · Different housing sizes available
- Depending on series, expandable via system modules or PCI/PCIe plug-in cards
- · Flexible mounting and attachment options



# IPC FROM STANDARD COMPONENTS: DISPLAY SOLUTION SPECTRA SILENT WDL

The fanless Touch Panel PC of the Spectra Silent wDL series are available with IP65 front or IP65 all-round protection. Especially the processing industry, such as metal processing, where dust or splash water is part of the daily work processes, requires IP65 protected operating panels.

- · High-quality and elegant housing
- · IP65 front or IP65 all around
- 12" to 24" display, PCAP touch screen
- Interfaces can be led out from the rear side
- Front operation
- · VESA or stand mounting



## **IPC FROM STANDARD COMPONENTS:** 19" RACK PC SPECTRA-RACK

The 19" rack PC are ideal for installation in 19" control cabinets.

The systems are based on the current Intel® CPU generations. They are equipped with PCI or PCIe expansion slots and a pre-installed operating system.

- $\cdot$  19" sheet steel housing 1 / 2 / 4 U
- · Max. 7 plug-in cards, depending on housing height
- Drive Bay for 3.5" and 5.25" front accessible and 3.5" internal drives.



# IPC FROM STANDARD COMPONENTS: COMPACT PC SPECTRA-COMPACT

The Spectra Compact PC have all interfaces, slot connections and operating elements on the front. Systems with a different arrangement of PCIe or PCI expansion slots are available. The systems are based on the current Intel® CPU generations and are available with a pre-installed operating system.

- Robust Box PC housing made of sheet steel
- Suitable for up to 4 plug-in cards (max. 200 mm)
- Drive bay for 5.25" and 3.5" front accessible and 3.5" internal drives
- · Equipped with fan





# WHAT DOESN'T EXIST ON THE MARKET, WE'LL DESIGN FOR YOU

Spectra develops or modifies certain components individually for you so that you get an optimal solution. With a modern CAD system we design the housing, the cooling system or the front that you need.

You see everything photorealistically in 3D on the screen and make decisions — long before the component is manufactured.



## AS INDIVIDUAL AS YOUR COMPANY: SPECTRA INDIVIDUAL

Again and again there are cases where standard solutions cannot get you anywhere. Be it to implement a system in the corporate design of your company, to implement a technical requirement for which no standard

components are available on the market, or to ensure optimum ease of use. And Spectra Individual is exactly for these cases.

## **SPECTRA INDIVIDUAL – THE POSSIBILITIES**

- 1 | FRONT LAYOUT Corporate Design (company colors, logo)
- 2 | CHASSIS MODIFICATION
- **3 | SPECIAL KEY COMBINATIONS**
- **4 | COMPLETE PROPER DESIGN** (Touchscreen, Trackball, Drives in Front)
- **5 | COMPLETE PROPER SYSTEM DEVELOPMENT**



SYSTEM IN CUSTOMISED DESIGN
AND WITH INDIVIDUAL CONFIGURATION



CUSTOMISED SYSTEM
FOR INTEGRATION IN GAMING MACHINES



## BECAUSE IT'S NOT ENOUGH, ONLY PARTS TO ASSEMBLE

To build an industrial PC, it is not enough to simply install individual parts.

The components must fit into the housing and also into each other.

Spectra's experienced assemblers avoid many errors in advance. They make sure, for example, that the backplane is not too large and the fan is not too small.

### **ASSEMBLING WITH KNOW-HOW**

Spectra's experienced staff identify potential problems that could lead to consequential damage in advance and eliminate them immediately. Nothing is left to chance. For example, cable routing to ensure good cooling. The advantage: The cooling air flow is not blocked, the IPC cannot overheat. We apply the same care to all other assemblies. And what about special requirements in assembly? No problem. The installation of a measurement card including driver or another Profibus card including software: Spectra makes it possible.

## 24-HOURS ENDURANCE TEST – 2 YEARS WARRANTY

A Spectra IPC does not leave the house until it has been put through its paces. 24 hours: This is how long our burn-in test takes, which we carry out on each of our industrial PC. Shock

test, test runs, stress tests: Your future PC will be spared nothing.

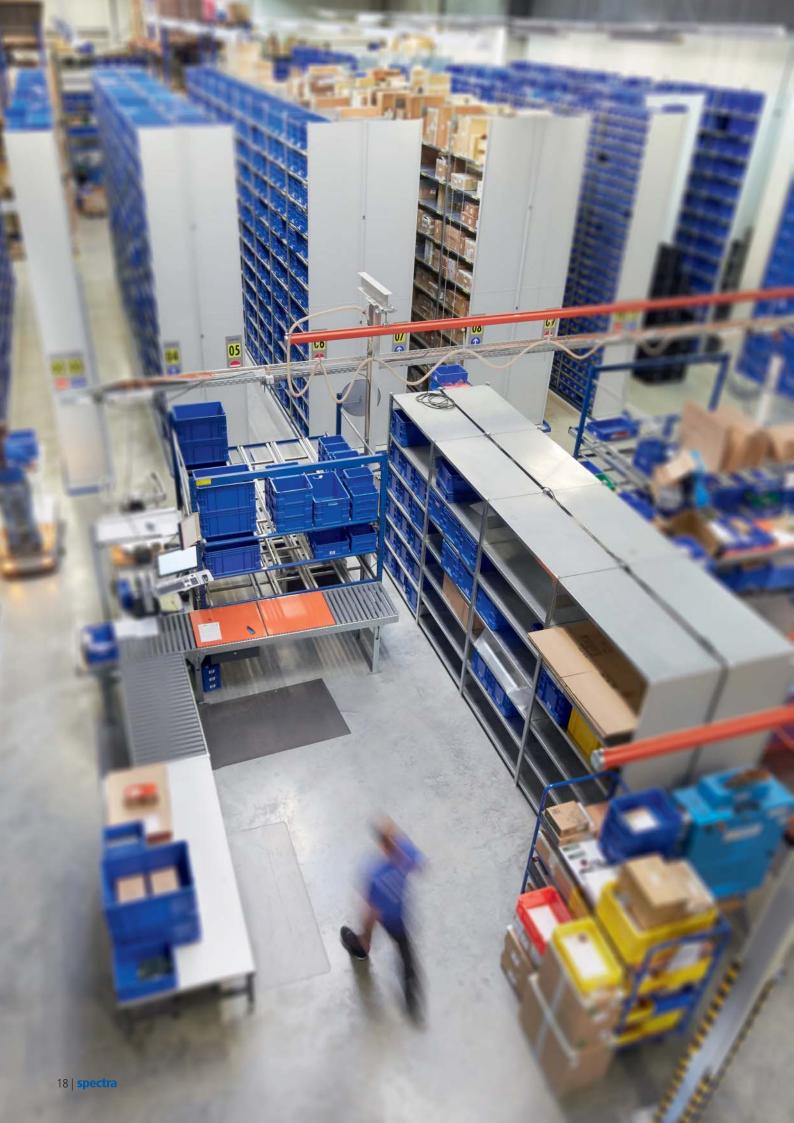
24 months: This is the warranty period that we give with letter and seal to every PC that has passed the test. If it says Spectra on it, it means quality.

## **ESD-COMPLIANT PRODUCTION**

Everyone knows that the interior of a PC is susceptible to electrostatic charges. It is therefore only logical that Spectra production should take place on an electrostatically dissipating floor.







# WHY SPECTRA HAS MORE FOR YOU IN STOCK

Especially in the fast-moving industrial PC sector, it is of enormous importance to have a partner who can pick and react quickly. Who can deliver components and systems just-in-time.

The spare parts are always in stock. That's why Spectra has a large warehouse and logistics centre - another factor that increases the availability of your applications.

### **OUR WAREHOUSE**

One of our greatest competitive advantages from which you can benefit in particular: our warehouse. We always have products in stock for more than € 2 million. This guarantees fast delivery and sets us apart from many of our competitors.

## FAST LOGISTICS – ALSO INTERNATIONAL

Spectra is known in the market for its fast logistics. Anything that is not there is ordered immediately. In order to bridge delivery bottlenecks in particularly "exotic" cases, we let our international relations play their part — and in a few days the right parts will be on site. At Spectra, we have employees who speak different languages, including Asian, to ensure smooth communication worldwide.

### **PROMPT CLARIFICATION**

Each Spectra-PC carries a unique serial number. Our production planning system uses this number to manage the data of all components installed in the system. So even years later, in the event of an emergency, our service will be able to provide you with fast first aid. Because we know how your system was once delivered!

#### **YOUR BENEFITS**

- Short delivery times, large stocks
- · Wide range of IPC components
- High efficiency through a modern merchandise management system
- 100 percent documentation through serial number management





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