

Controller requirements: Productivity+™ Scanning Suite

Mazak SmoothX and SmoothG

The information within this document provides the minimum recommended controller requirements to enable the use of a SPRINT™ system with Productivity+™ on a machining centre with a Mazak SmoothX or SmoothG controller.

NOTE: Part numbers and descriptions within this document relating to items provided by organisations other than Renishaw are provided for information only. Whilst every effort has been made to ensure these are accurate, please contact the machine tool or controller OEM or distributor for confirmation before purchasing.

CNC plug-in installations

SmoothX controller firmware version A6 onwards (machine models VRX and INTX)

SmoothG controller firmware version AD onwards (machine models VCN and HCN)

Controller option
SPRINT™ interface option 1 (includes SPRINT™ option, SPRINT™ interface card, cables and network switch)
API option

Verify the exact option details with your local Mazak machine dealer as these may differ from machine to machine.

Subject to controller configuration, use of a mouse and keyboard will help to simplify installation, programming, data entry and navigation through the Productivity+ CNC plug-in application.

In addition to the Productivity+ CNC plug-in, a series of optional toolkits are available providing enhanced functionality.

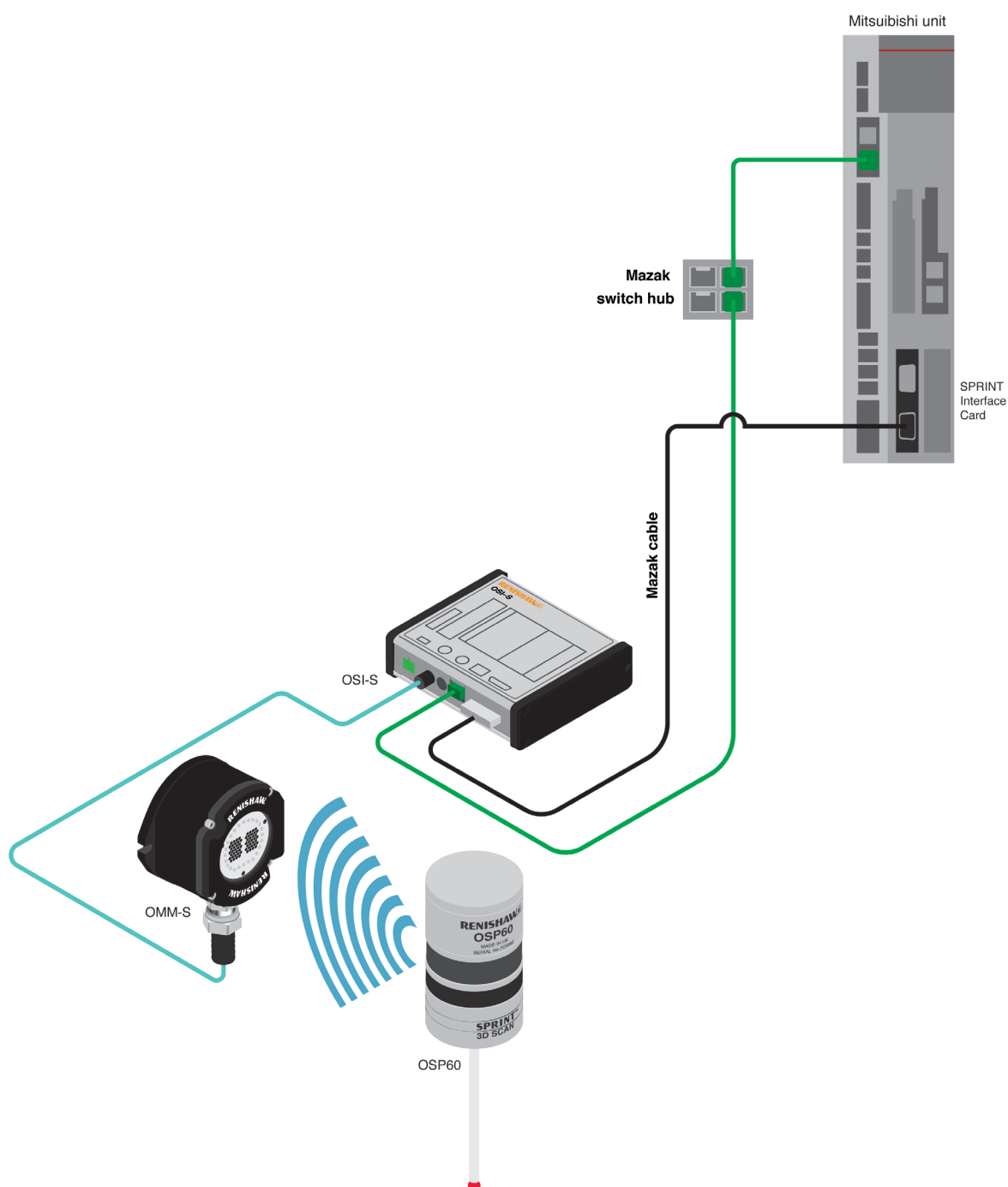
Typically, run-time elements of the Productivity+ Scanning Suite are installed on an external data processor. Use of a Renishaw DPU-2 (Renishaw part no. A-4007-4230) is recommended.

The minimum recommended specification for any alternative external data processor (PC) is:

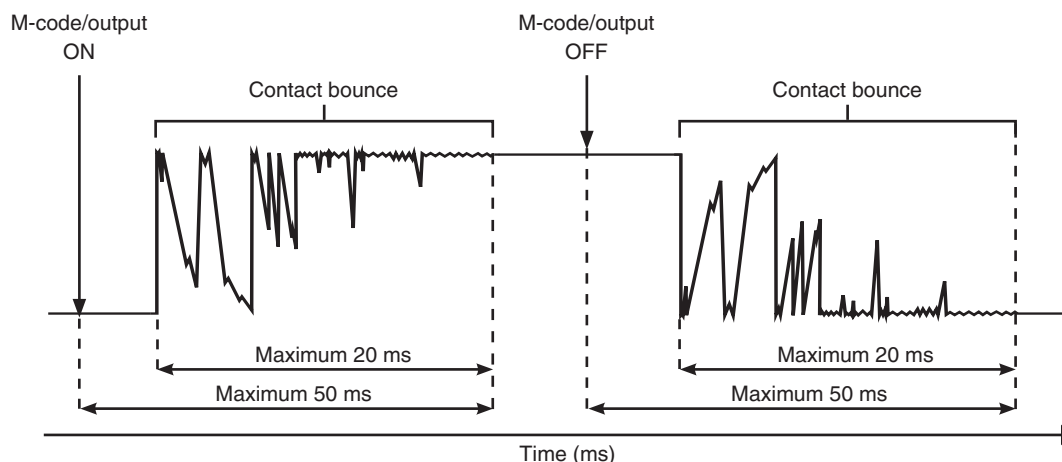
- Microsoft® Windows® 10 (Enterprise or Professional)
- Intel Core i3-5010U
- 2.1 GHz, 2 cores, 4 threads
- 4 GB RAM
- 64 GB solid state drive
- Two 100/1000Base-T Ethernet connections (dedicated to Productivity+). If a customer specific network connection is required, an additional Ethernet connection is required

NOTE: It is possible to install onto an external data processor with a lower specification, however this is the minimum recommended specification based on the data processing requirements of Productivity+ software applications.

Connection schematic



Output signal requirements



Any increase in these values will impact negatively on cycle times and may prevent the system working reliably.

The 3 × pairs of latched M-codes (high-speed digital outputs) should be reset when Reset is pressed on the CNC machine tool.

The output/input signal level change must be from 0 V to between 5 V and 30 V.

Use of solid-state relays is recommended as issues can arise from noise on mechanical relay contacts (contact debounce time of 20 ms maximum).

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