APOGEAN™ Machine Compatibility & Available Data

Toward Zero™

LEGEND

✓ - Always available

✓ - Frequently available

✗ - Not available

	IDENTIFIERS							MACHINE STATUS																			JOB STATUS										MAINT / ALARMS												POWER	
	Machine type	Machine ID (brass tag)	Machine name	Controller model	Controller series	Controller s/n	Controller software version	Machine status (execution)	Controller mode (mode + description)	Availability (power-on time)	Cycle time (run time)	Current tool indicator	Tool changes	Spindle run (status)	Spindle RPM	Spindle load[1]	Spindle override %[2]	Feedrate (actual)	Feedrate override %[2]	Feed hold	Axes position (X, Y, Z as text)	X axis position (exact)	Y axis position (exact)	Z axis position (exact)	Motion[2]	Part name	Program name	Program create date	Macro variables (DPRINT)[2]	Block (current block executing)	Line (current line executing)	Parts count	Good parts / bad parts[2]	Probe data[3]	Operator message	Condition: vibration[3]	Condition: temp[3]	Condition: speed[3]	Condition: current[3]	Condition: voltage[3]	Alarms (type, count)	Alarm code	Specific alarm names	Emergency stop	Coolant temp[3]	Coolant level[3]	Air pressure[3]	Power, each phase[3]	Power average[3]
HAAS machines	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓
Machines with FANUC i-Series (FANUC, Mori Seiki, Makino, Matsuura, Doosan, Niigata, Takisawa, Toyoda, others)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Machines with FANUC legacy (FANUC, Mori Seiki, Makino, Matsuura, Doosan, Niigata, Takisawa, Toyoda, others)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓
Machines that speak MTConnect (Citizen, DMG Mori, Hurco, Makino EDM, Oman WaterJet, Zeiss CMM, others)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Machines that speak OPC UA or OPC (Siemens, Traub, others)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Legacy machine tools (any machine, digital signal monitor)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓

[1] Most HAAS machines 2016-current do not provide spindle load

[2] Machine-dependent; if accessible from machine

[3] Requires additional sensors

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