

ARL SMS Automation System

Comparison overview and application selection guide



SMS comparison chart

Specification	Description	ARL SMS-2300	ARL SMS-3300 Single	ARL SMS-3300 Dual	ARL SMS-3500 Entry	ARL SMS-3500
Payload	Lifting weight (kg)	4	7	7	10	10
Samples height	Samples diameter: 30 mm to 67 mm	8 mm to 60 mm	8 mm to 60 mm	8 mm to 60 mm	8 mm to 60 mm	8 mm to 60 mm
Magazine capacity	Inside enclosure	up to 90	up to 90	up to 90	up to 90	up to 90
Sample preparation time	Ferrous metals	27–67 sec	27–67 sec	27–67 sec	27–67 sec	27–67 sec
	Non-Ferrous metals	35–67 sec	35–67 sec	35–67 sec	35–67 sec	35–67 sec
Robotic arm movement times	Loading in milling machine	8 sec	8 sec	8 sec	8 sec	8 sec
	Transfer: milling machine to Analyzer	7 sec	7 sec	7 sec	7 sec	7 sec
	Sample shifting for another spark	5 sec	5 sec	5 sec	5 sec	5 sec
	Filing and robot move to the next sample	6 sec	6 sec	6 sec	6 sec	6 sec
	Sample labeling	8 sec	8 sec	8 sec	8 sec	8 sec
	Surface analysis by a vision system	2 sec	2 sec	2 sec	2 sec	2 sec
Dimensions with an ARL iSpark; weight without instrument	Length	1200 mm	3830 mm	3830 mm	4370 mm	4750 mm
	Width	995 mm	2235 mm	2725 mm	2725 mm	2750 mm
	Height	1900 mm	1905 mm	1905 mm	1905 mm	2200 mm
	Weight	~ 295 kg or 590 lb	~ 700 kg	~ 800 kg	~ 800 kg	~ 800 kg

SMS application selection guide

	Benefits	Advantages	Limitations
ARL SMS-2300	• Ideal for lower volume operations • Complete redundant backups • Secondary spectrometer, robot and preparation system	• Entry-cost robotic system • Compact footprint • Well suited for standard sized QuantoShelter	• One instrument – one sample preparation system • Limited number of accessories/ options
ARL SMS-3300 Single ARL SMS-3300 Dual	• Ideal for medium sample volumes • Redundant backup for spectrometers • Single instrument version system easily upgradable in the field to a Dual instrument version • Dual instruments in quantoshelter	• Compact footprint for dual instrument configuration • Well suited for standard sized QuantoShelter • Cost effective field upgradable solution • Increased number of accessories/ options	• One or two instrument(s) – one sample preparation system • Set configuration for positions of the spectrometer(s) and preparation system
ARL SMS-3500 Entry	• Ideal for high sample volumes • Redundant backup for spectrometers and sample preparation • Field upgradable from ARL SMS-3300	• Compact footprint for dual instrument and dual preparation system configuration • Cost effective field upgradable solution • Increased number of accessories/ options	• Two instrument – two sample preparation in set configuration
ARL SMS-3500	• Ideal for high sample volumes • Redundant backup for spectrometers and sample preparation • Flexible orientations	• Multiple instrument • Multiple sample preparation equipment • Increased number of accessories/ options • Flexible orientation of instruments and preparation system	• Two instruments & two preparation machines

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