ARL SMS Automation System

Comparison overview and application selection guide



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



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SMS application selection guide

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





