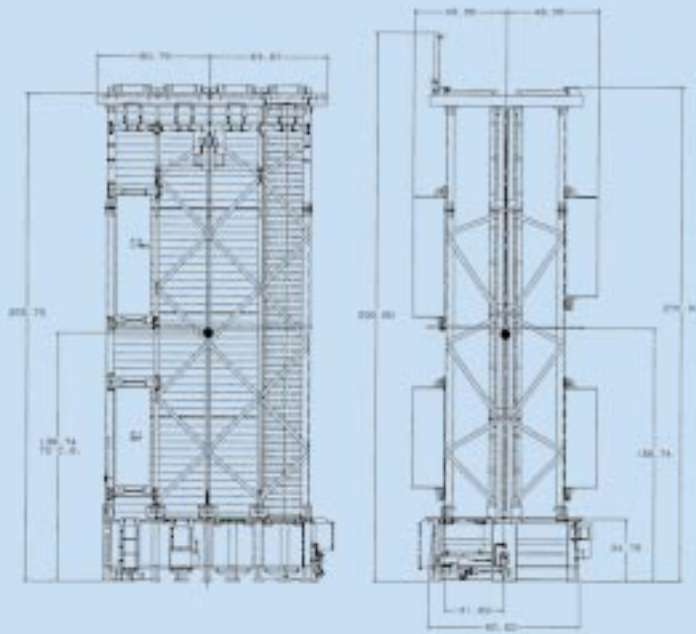


Vertical Launching System (VLS) Mk 41– Tactical-Length Module



Power Required by Single Module Variant

60 Hz, 440 Vac, 3 phase	29 kW
60 Hz, 115 Vac, 1 phase (Lightning)	2 kW
60 Hz, 115 Vac, 3 phase (Backup power for 440 Vac)	4 kW
60 Hz, 115 Vac, 1 phase (Launch control unit)	6 kW
400 Hz, 440 Vac, 3 phase	10 kW

Ship Services Required by Single Module Variant

Low-pressure air	225 psi
Freshwater	55 gallons (tank and lines)
Saltwater:	
Deluge	320 gal/min at 105 psi
Sprinkling	280 gal/min at 65 psi
Drainage	600 gal/min
Cooling	17,000 btu/hour
Heating	8,000 btuU/hour
Fresh air replenishment	75 ft ³ /min
Blow-out air exchange	15 min

Environmental Conditions

Internal launcher conditions range56 °F and 95% relative humidity to 85 °F and 55% relative humidity

System Weights—Single Module

	Pounds	Long Ton
Launcher empty	32,000	14
Loaded with 8 SM-2 Blk II missiles	56,400	25
Loaded with 8 VLA ASROC missiles	57,800	26
Loaded with 8 SEASPARROW missiles	53,700	24

Canister Weights

	Pounds
Mk 13 with SM-2 Blk II missile	3,050
Mk 22 with SEASPARROW (VL/RIM-7) missile	2,700
Mk 15 with VLA ASROC	3,200
with VLA ASROC (max growth)	3,450

Launch Control System Sizes and Weights

	Inches (L x W x H)*	Pounds
Status panel	11.5 x 18 x 24	100
Remote launch enable panel	8 x 10 x 13	30
Launch control unit	34 x 44 x 80	1,350

*Length x Width x Height

Strikedown Equipment Weights

	Pounds
Strongback, horizontal transfer assembly	211
Vertical strongback	47
Cell guide assembly	51
Lift adapter, truck assembly (4)	284
Chock (4)	133
Other assemblies (13)	243
Total	969

Safety

Restrained Firing: Launcher capable of surviving a full motor burn of restrained missile
 Warhead Deluge: Deluge provided to prevent warhead explosion (320 gpm at 105 psig)

Missiles	SM-2 BLK II	VLA ASROC	SEASPARROW VL/RIM-7
Type	AAW	ASW	AAW
Maximum weight (lb)	1,560	1,400	540
Maximum length (in)	184	200	152
Maximum diameter (in)	14	14	8
Quantity per launcher module – 8			

System Size	1 Module	2 Module	4 Module
Length (inches)	103 Inches	103 Inches	103 Inches
Width (inches)	135	249	249
Height (inches)	266	266	266

Launcher RM&A– 4-Module Launcher

Mean time between failure3,872 hours
 Mean time to repair3.2 hours
 Average scheduled maintenance time0.5 hours per day
 Intrinsic availability0.978

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