



# MCAS-500 SERIES

MISSION CONFIGURABLE AIRCRAFT SYSTEM

 DILLON AERO



# MCAS - 500AH

MISSION CONFIGURABLE AIRCRAFT SYSTEM



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# THE STANDARD

## > LIGHT ATTACK HELICOPTERS

The Dillon Aero Mission Configurable Aircraft System (MCAS) provides an exceptional armament solution for the MD500 series of helicopters. Years of direct, hands-on experience coupled with innovative engineers have produced an armament platform that is lighter, more capable, and easier to support than other systems currently available.

Airframe sustainability and useful load benefit from the decreased overall weight; generally 70 pounds compared to legacy systems. The aircraft can now carry more ammunition, fuel, or additional weapons systems.

Depending on the mission profile the user has endless configuration options utilizing up to 6 weapon stations. MCAS can easily and quickly be configured for Hellfire, M134D, GAU-19B, HMP-250/400, RMP, M260, or M261 rocket launchers based on mission requirements. The outer wing sections are capable of Smart Weapon Enhancements such as the Raytheon Griffin® B launcher. MCAS supports any combination of 3000 or 1500 round 7.62mm magazines, and/or 600 round .50 caliber magazines. All of the lightweight magazines have an identical footprint that lock into common points.

The outboard wing sections fold 180° to reduce the lateral dimension to 86 inches. This results in easier transport and a smaller hangar footprint. Damage prone areas are easily replaced in the field. It is not necessary to replace an entire plank because of localized damage. MCAS wings are interchangeable between aircraft. With complete interchangeability between airframes, there is no need for tail number specific hardware. This provides the user greater flexibility.

To allow for faster reload times and diminish stress on crew, we have reduced lift height, and provided smooth obstruction-free magazine rails. Cables are routed through fairings that provide protection from the environment. A pass-through within the center section allows flex chuting to be mounted completely underneath the wing eliminating interference during arming.

# GENERAL OVERVIEW

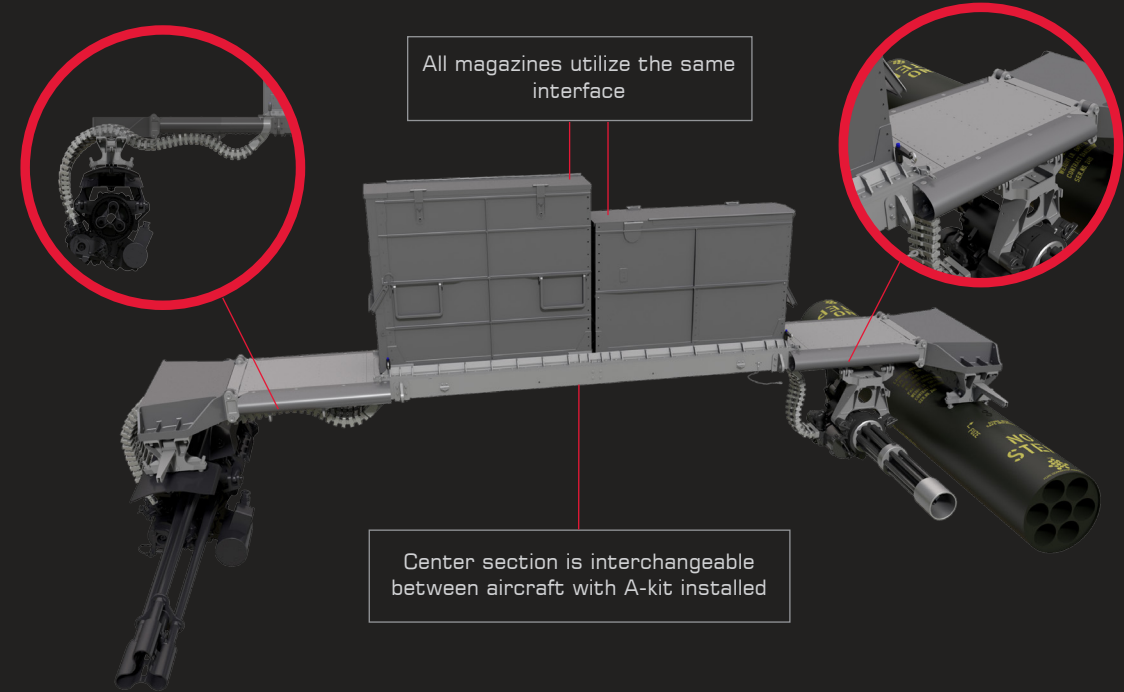
All flexible ammunition feed chute routing is 'under wing' leaving the upper surfaces flat for easy reload

Cable fairings to protect weapons cabling

All magazines utilize the same interface

Center section is interchangeable between aircraft with A-kit installed

All stations are bore-sightable



# LIGHTWEIGHT

128 POUNDS AS DEPICTED

Far outboard stations also support ALKAN 2037 ejector racks and Marvin MA-4B (different hardware)

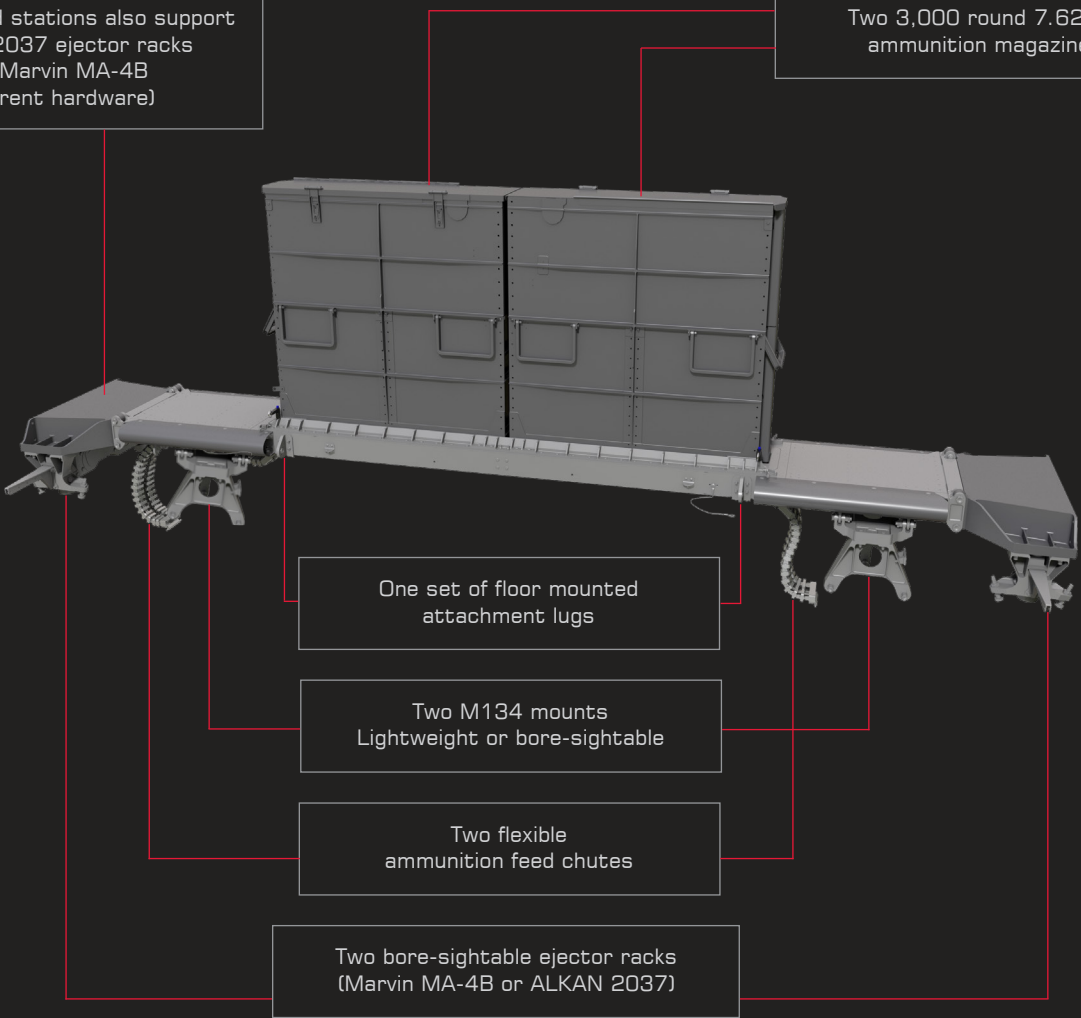
Two 3,000 round 7.62mm ammunition magazines

One set of floor mounted attachment lugs

Two M134 mounts Lightweight or bore-sightable

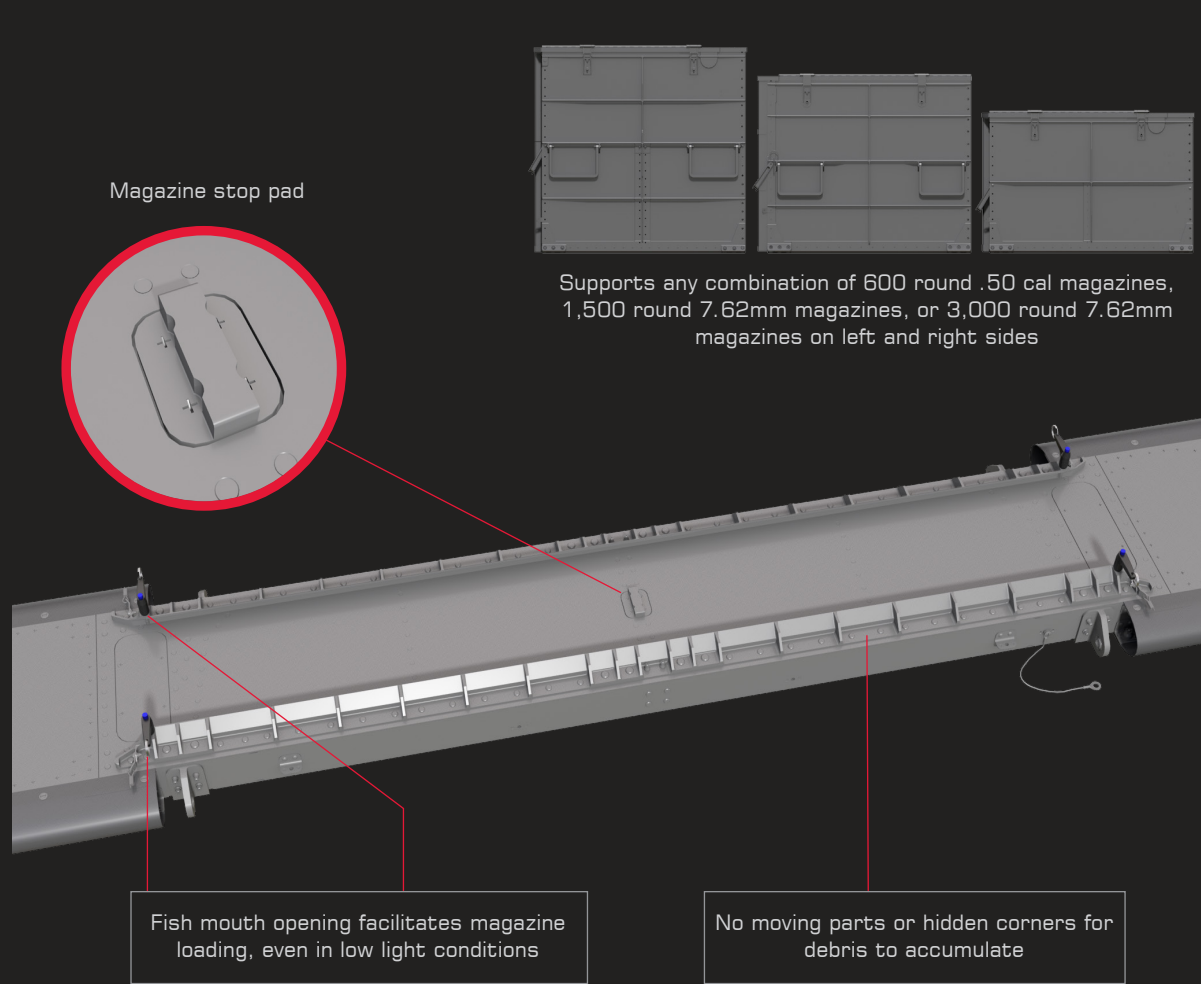
Two flexible ammunition feed chutes

Two bore-sightable ejector racks (Marvin MA-4B or ALKAN 2037)

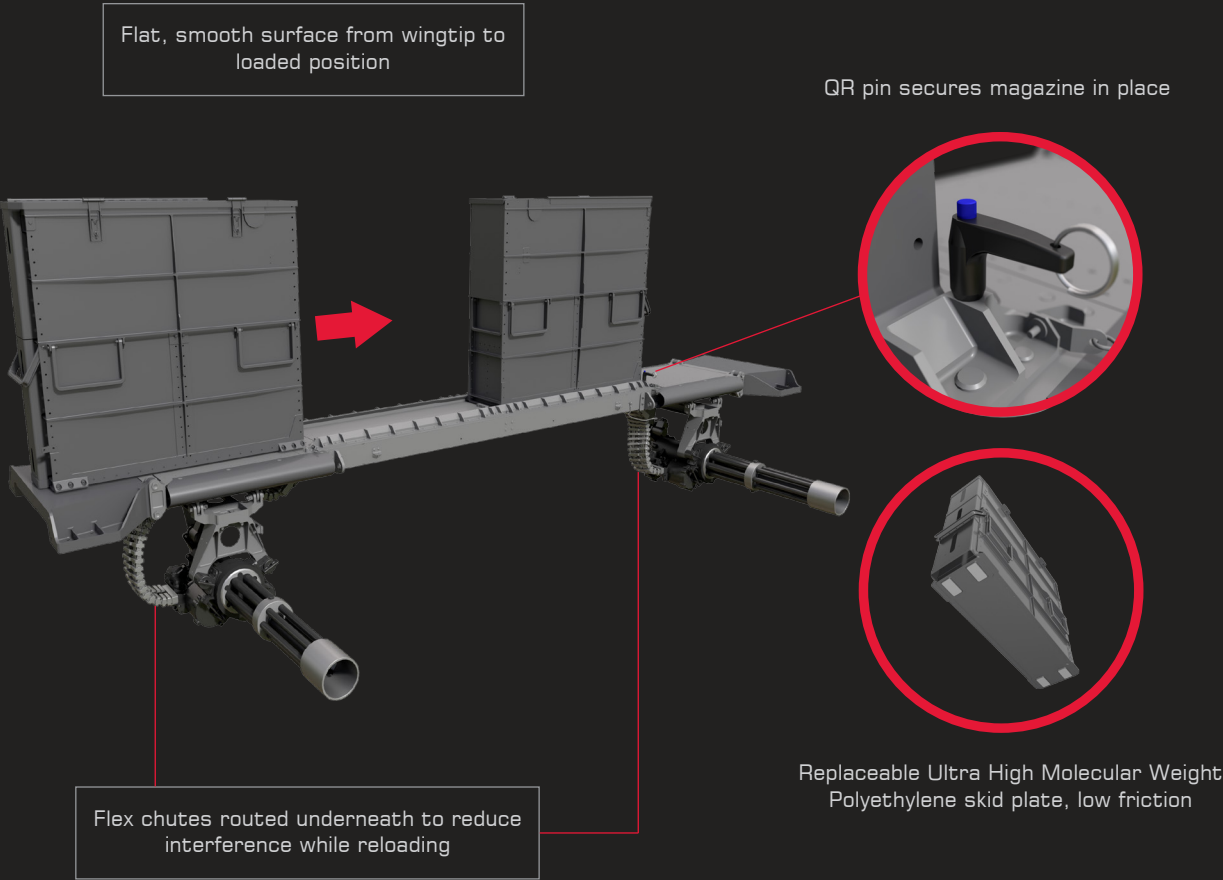




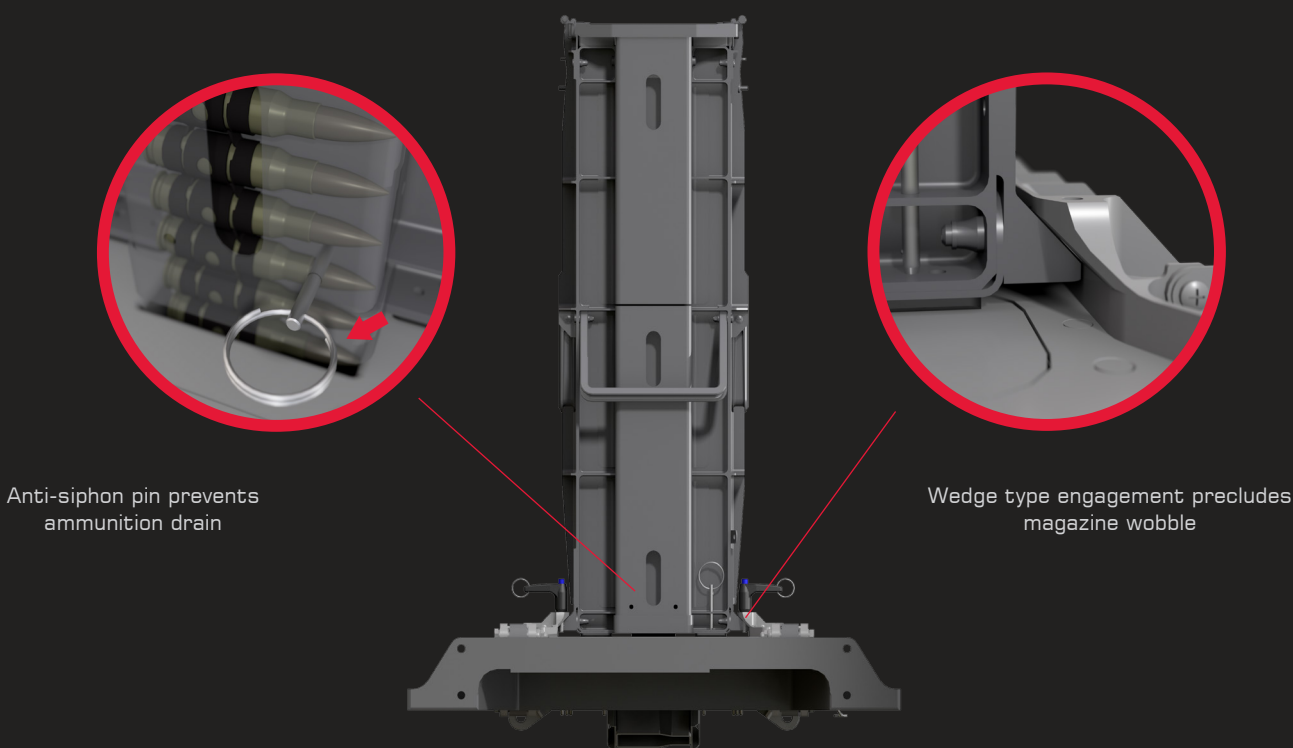
# MAGAZINE RAIL SYSTEM



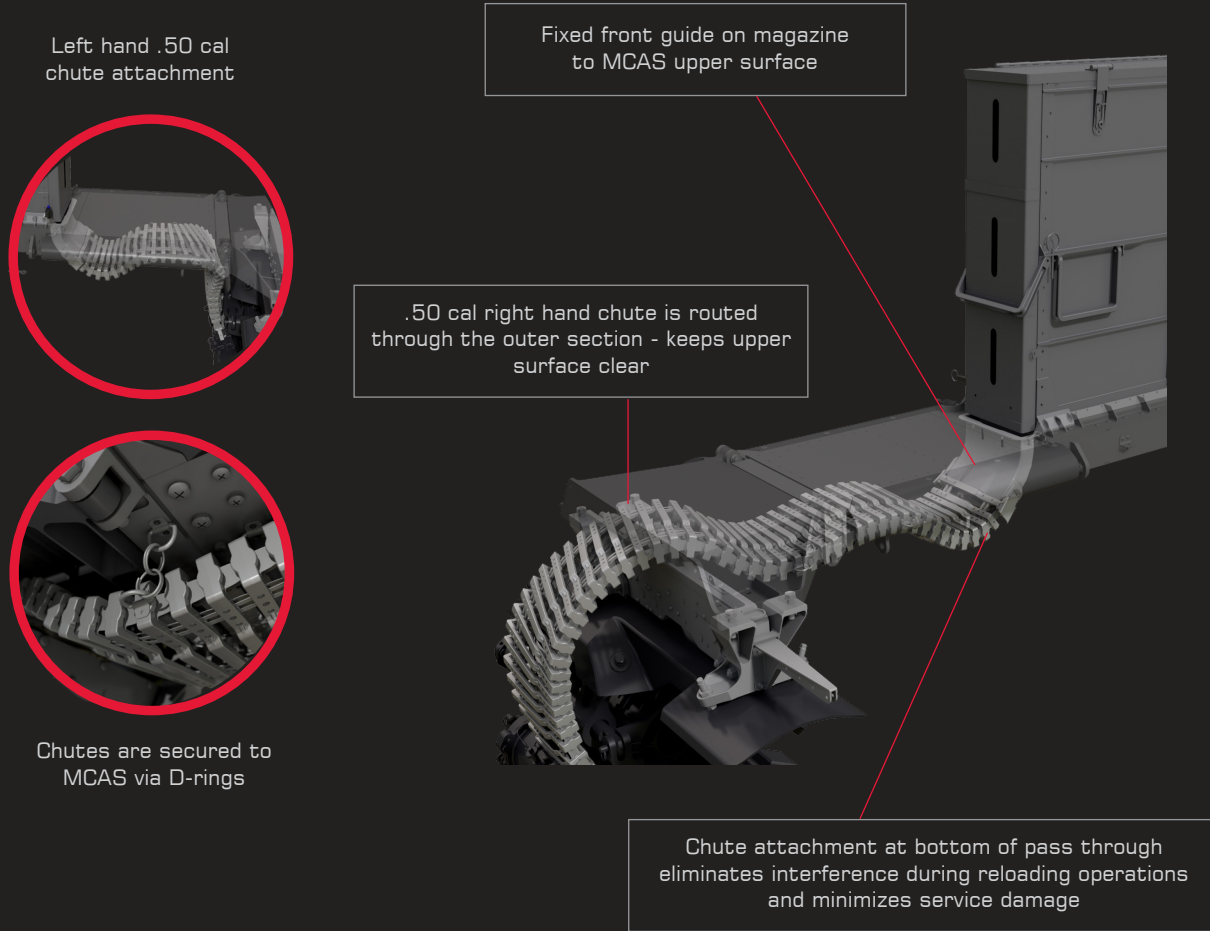
# RELOADING OF LIGHTWEIGHT MAGAZINES



LIGHTWEIGHT MAGAZINE FEATURES

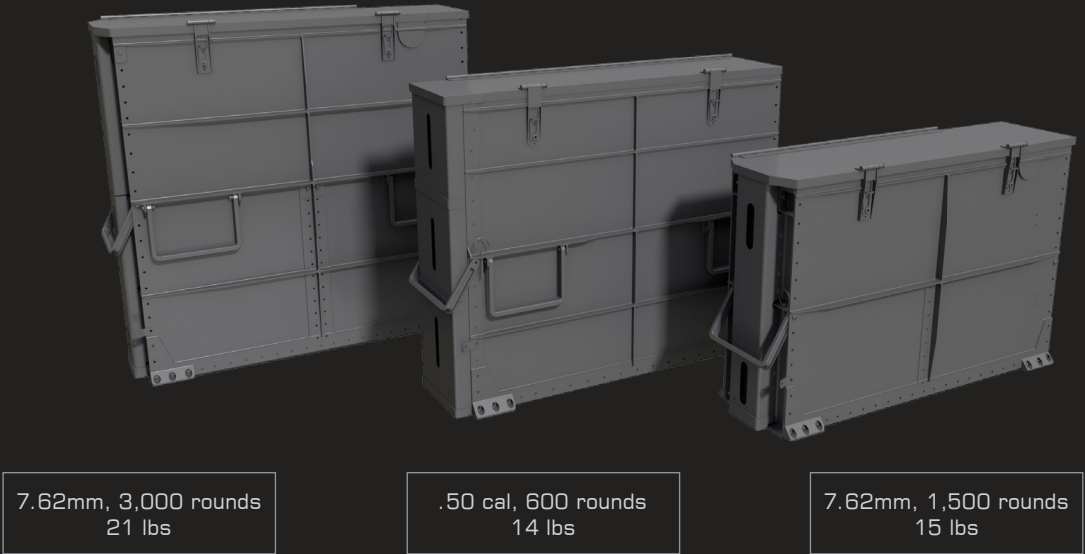


INTEGRATED AMMUNITION CHUTES



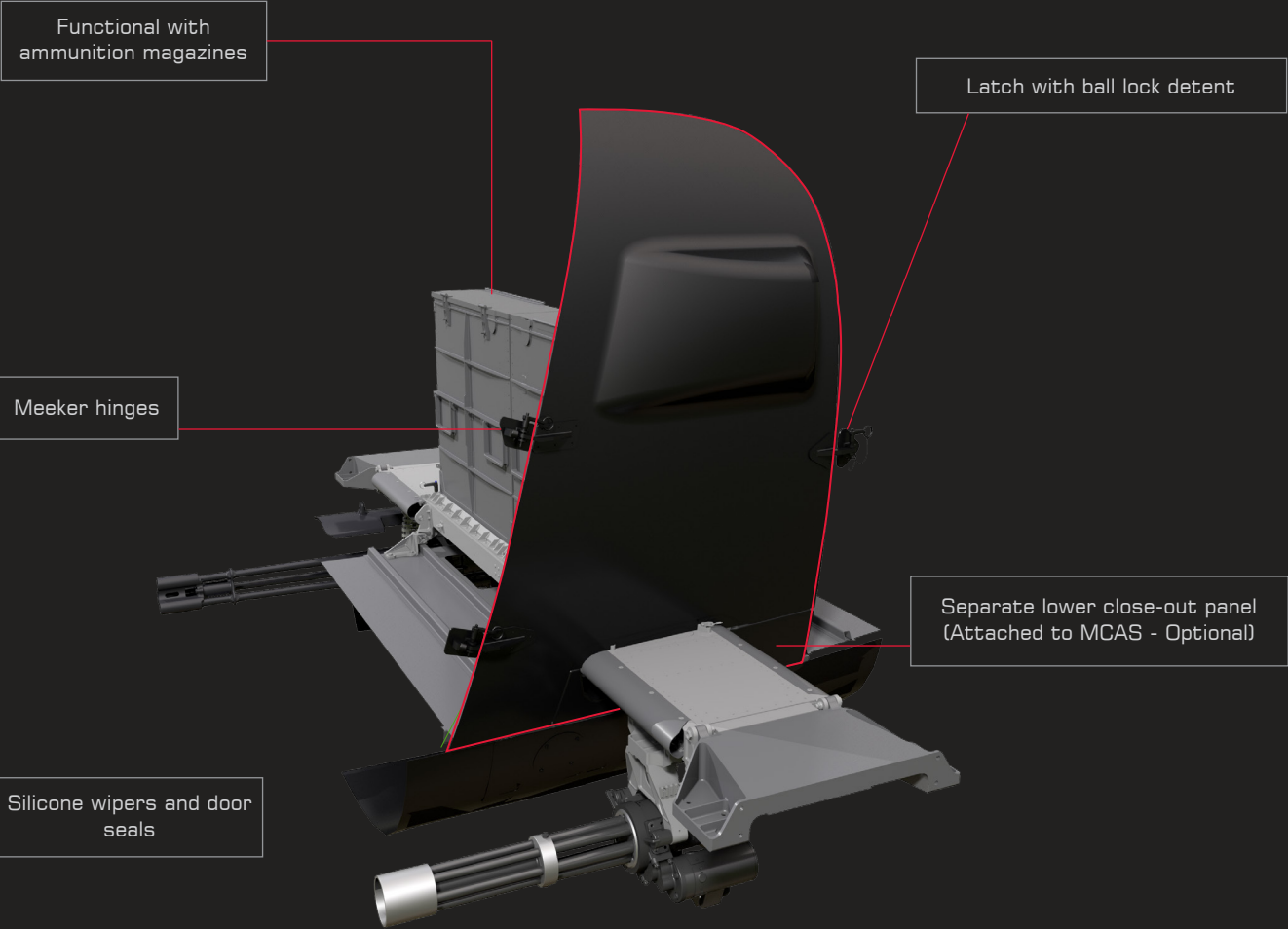


# FAMILY OF LIGHTWEIGHT MAGAZINES WITH INTEGRATED FEED CHUTES



- Maintain proven functional features of Dillon design
- Optimize can stiffness with integral machined ribs
- Integrated handle provisions for 2 man lift
- Integrated mounting provisions at base
- Magazine interface to MCAS is identical for 7.62mm or .50 cal

# COMPOSITE DOOR WITH LIGHTNING PROTECTION

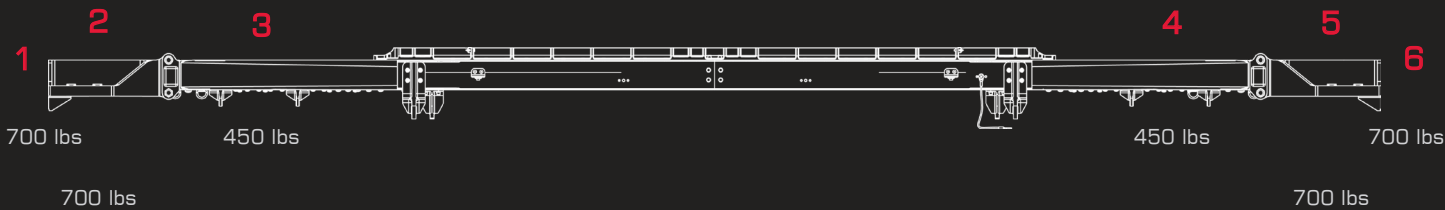


MISSION CONFIGURABLE AIRCRAFT SYSTEM

MCAS - 500AH  
CONFIGURATION  
OPTIONS\*

LEFT SIDE WEAPON STATIONS

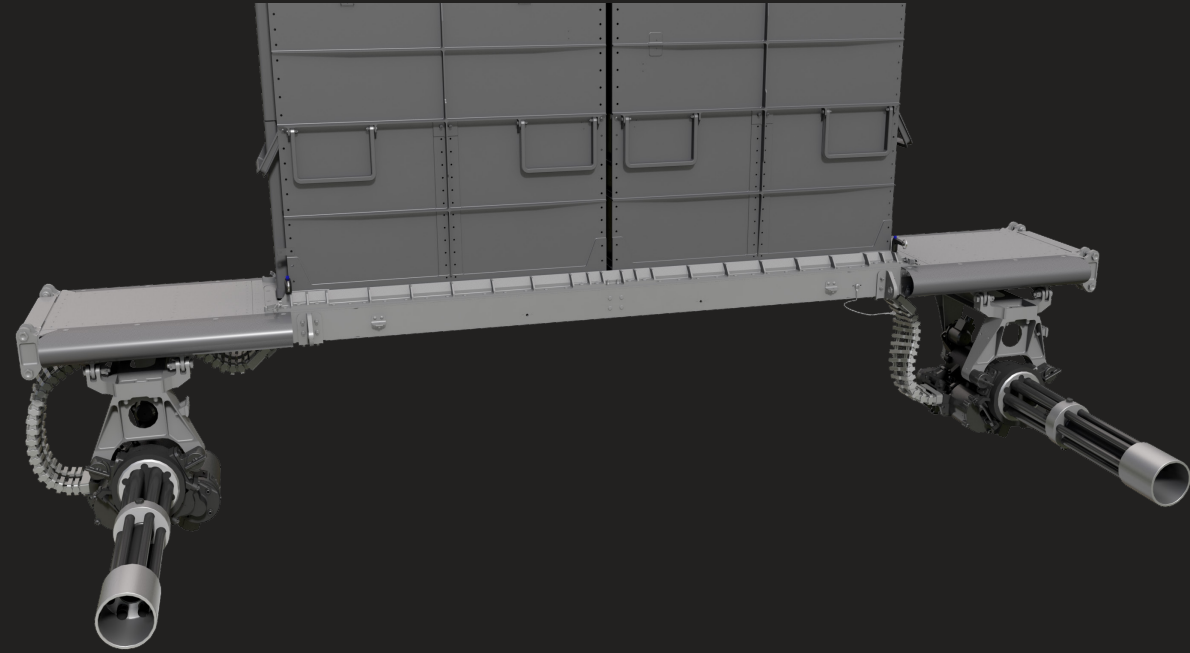
RIGHT SIDE WEAPON STATIONS



\*Not limited to the demonstrated configurations.

\*Demonstrated above: Weight capacity of individual stations.

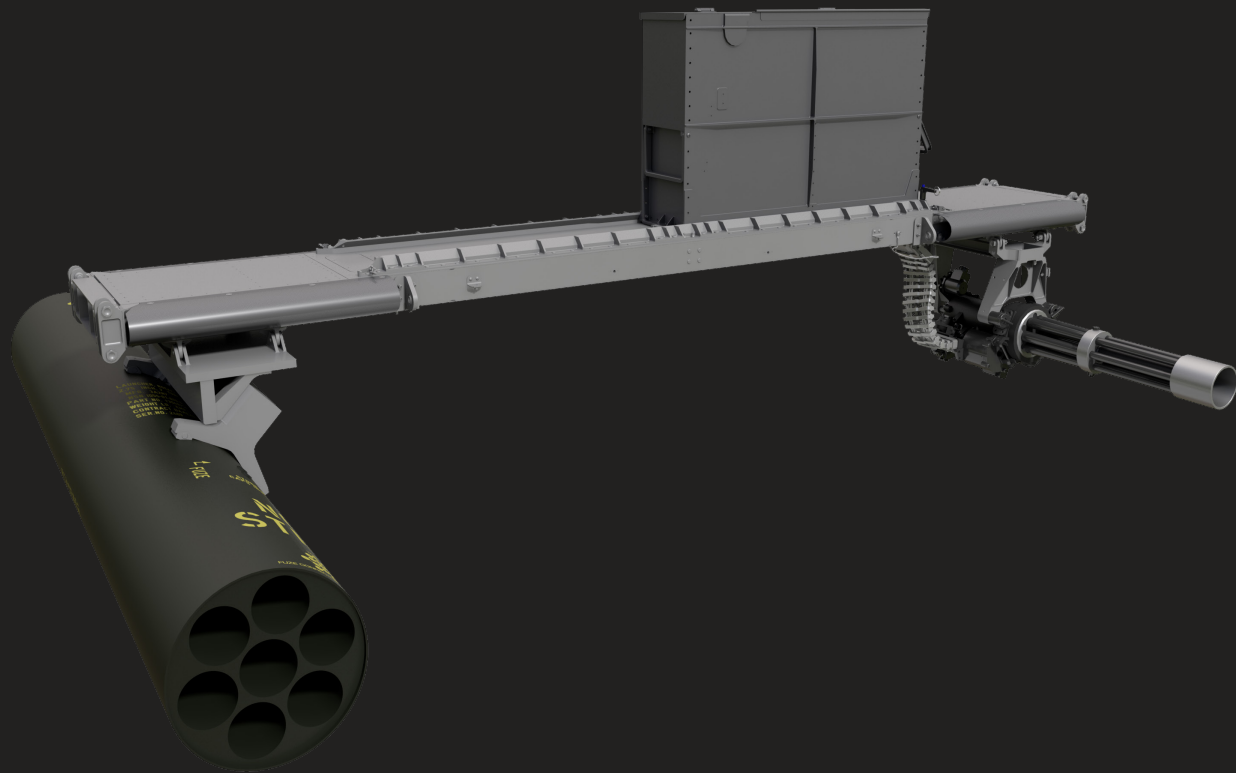




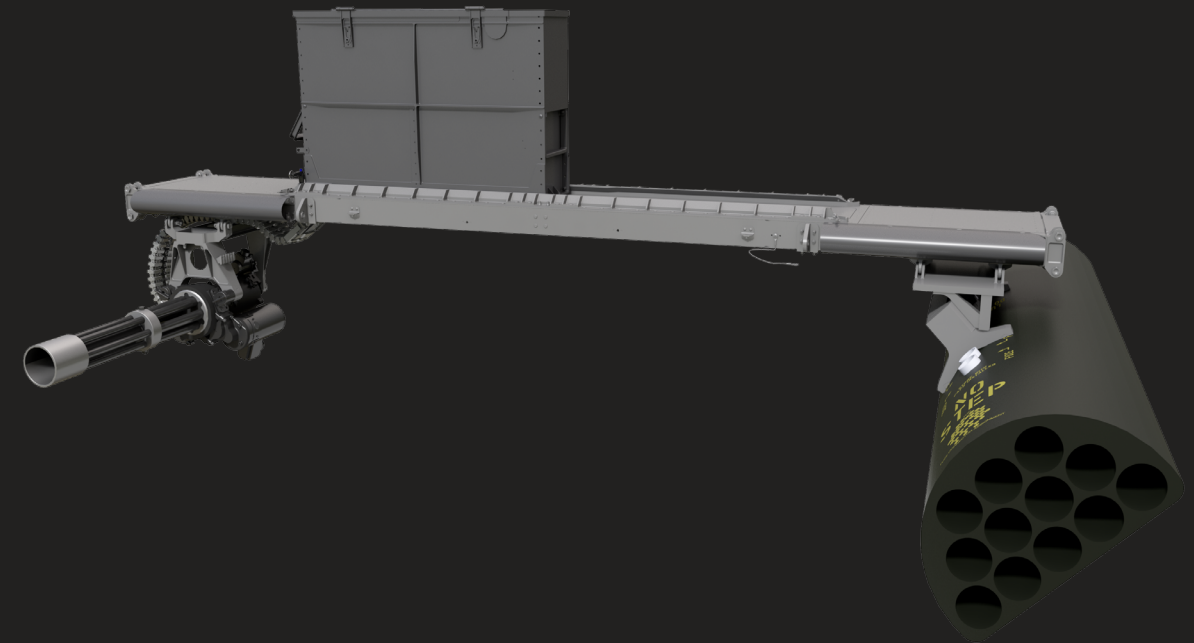
DUAL M134D MINIGUNS



DUAL M260 ROCKET LAUNCHERS

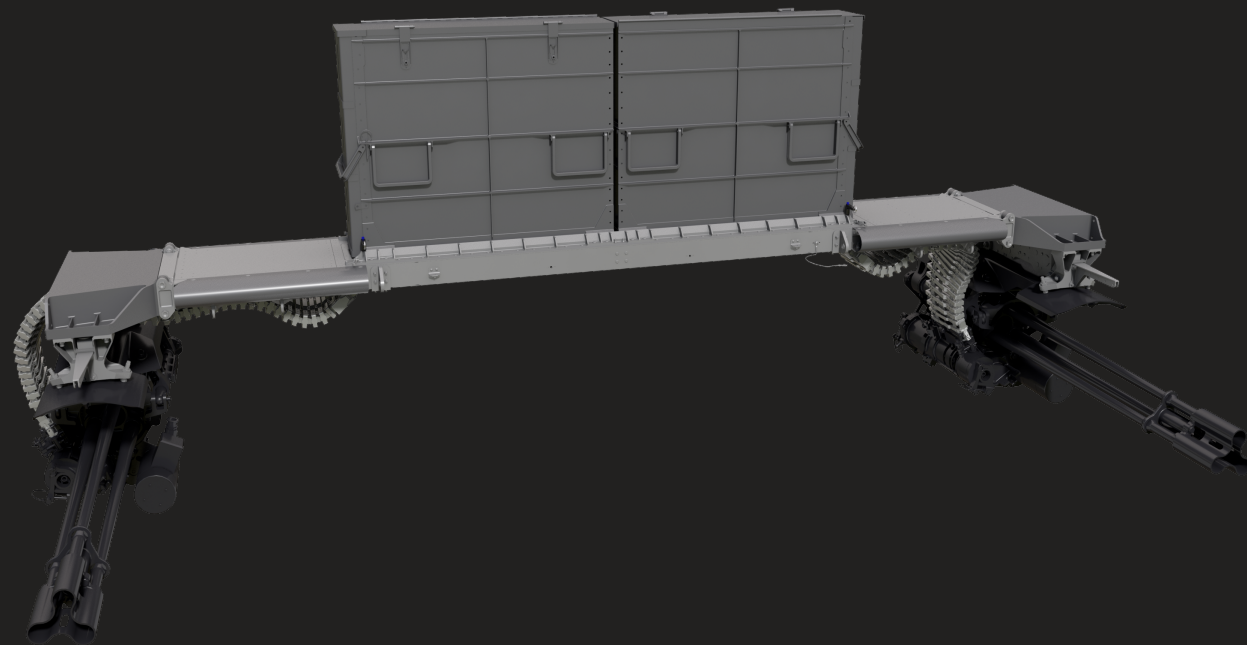


M260 ROCKET LAUNCHER & M134D MINIGUN



M134D MINIGUN & LWL12 ROCKET LAUNCHER

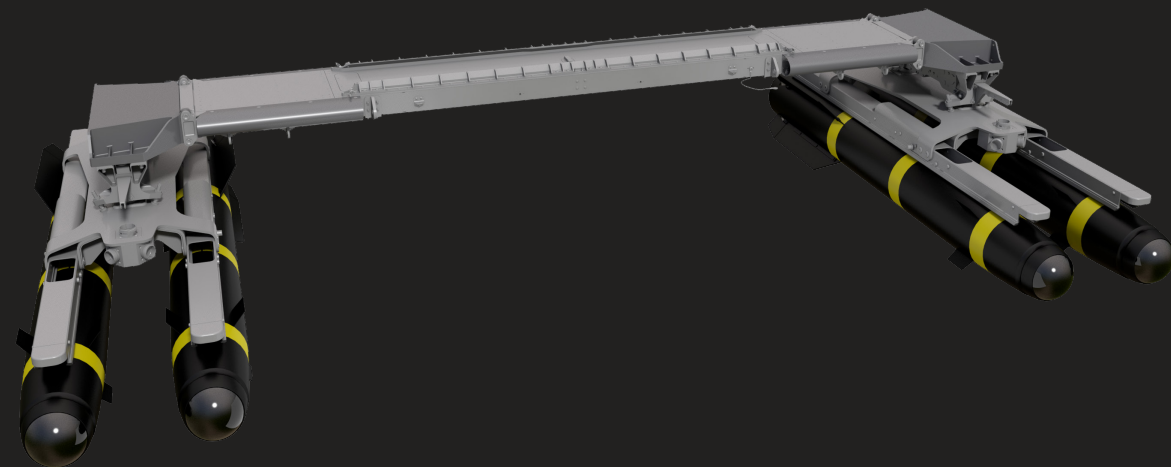




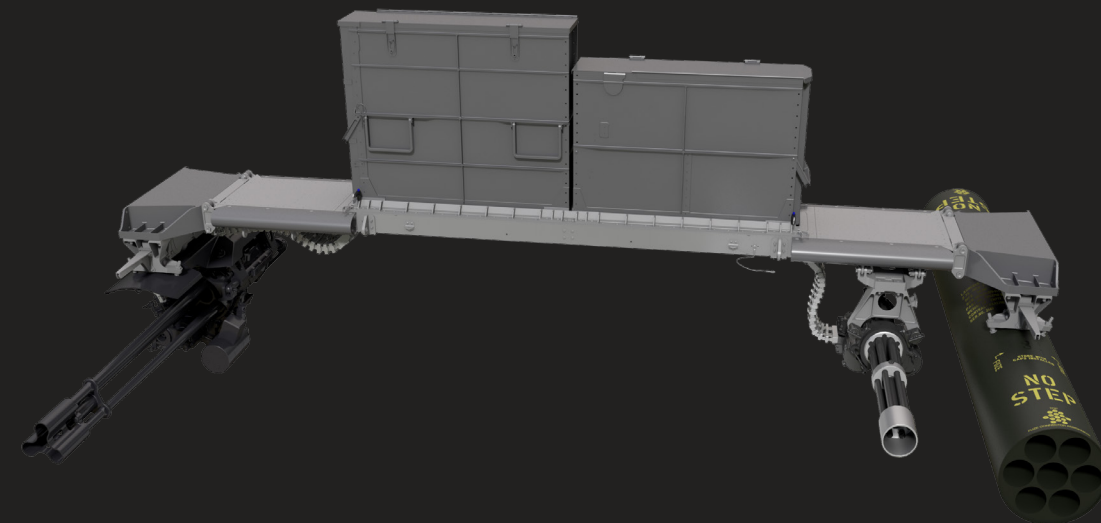
DUAL GAU - 19B



DUAL HMP - 400

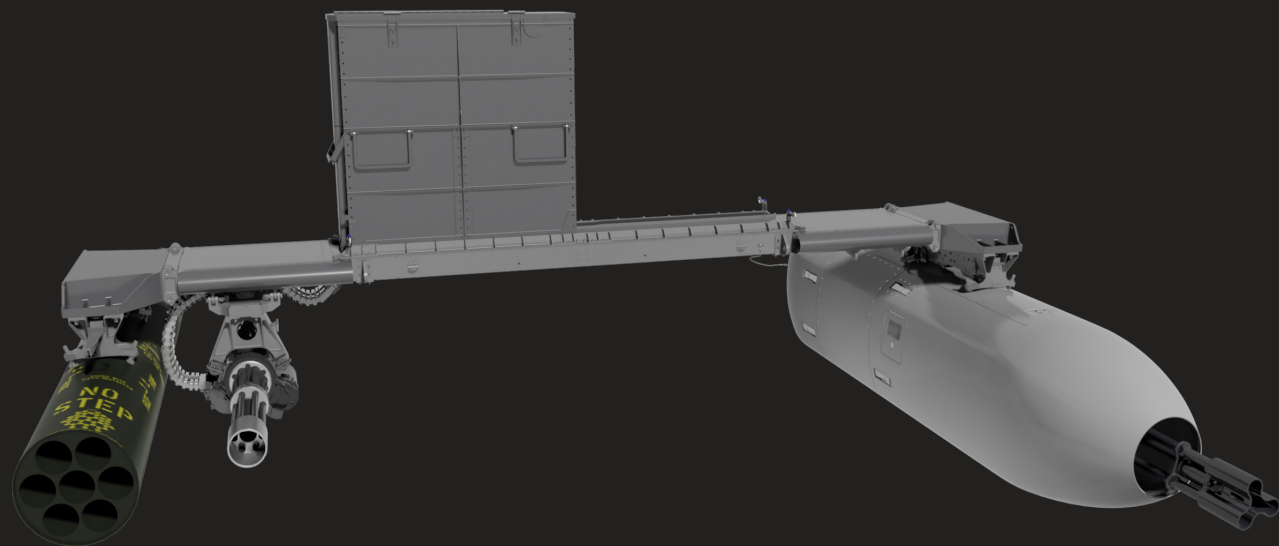


DUAL TWIN HELLFIRE RAILS



GAU -19B, M134D MINIGUN & M260 ROCKET LAUNCHER

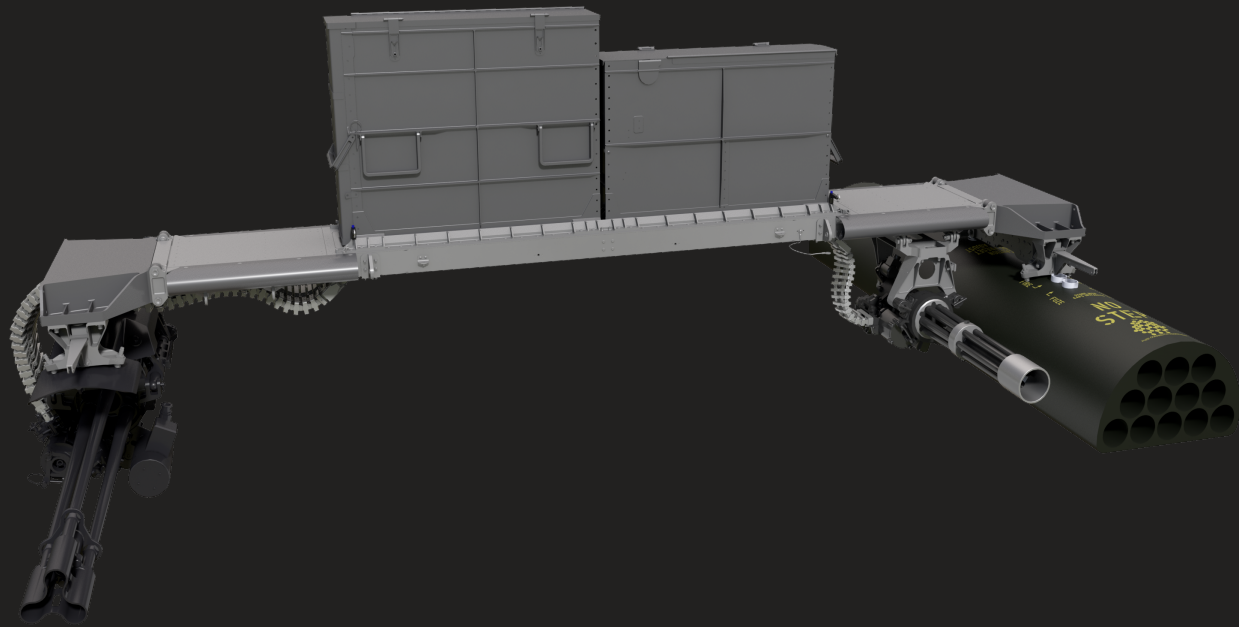




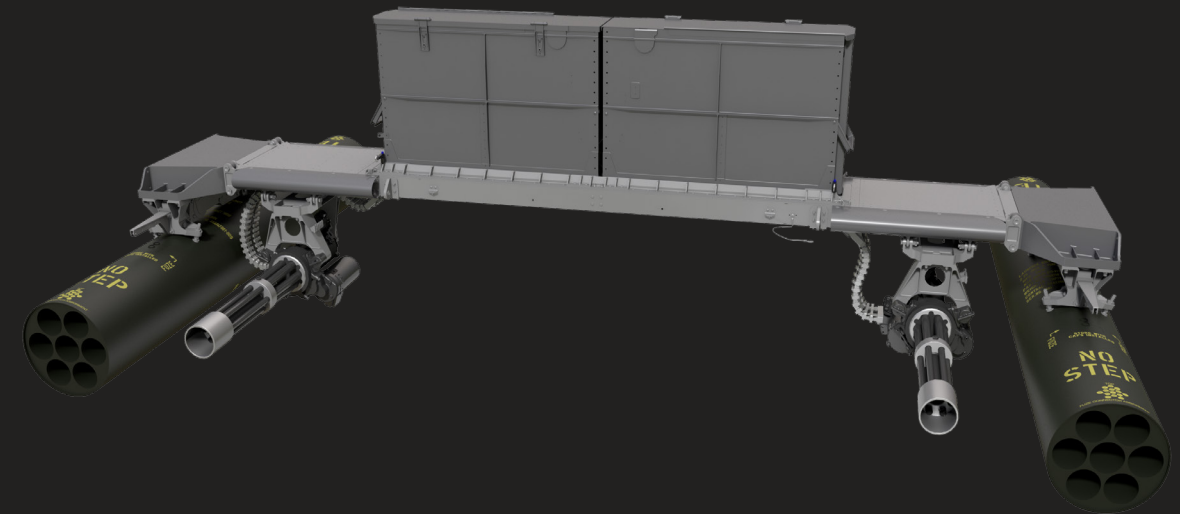
M260 ROCKET LAUNCHER, M134D MINIGUN & GP-19



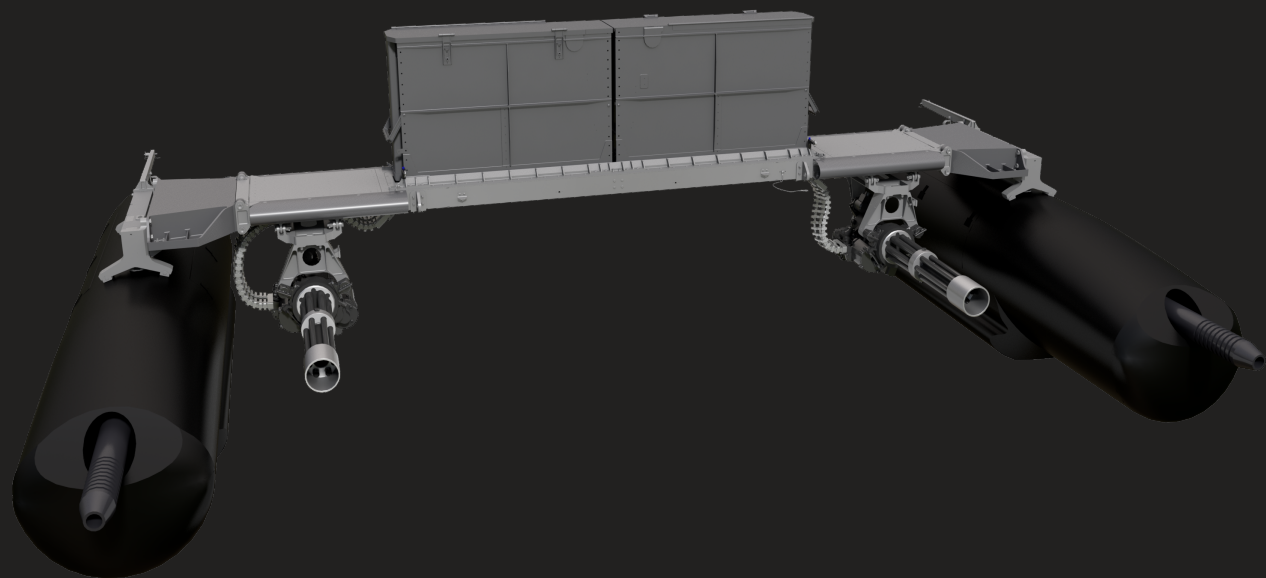
TWIN HELLFIRE RAIL, M134D MINIGUN & M260 ROCKET  
LAUNCHER



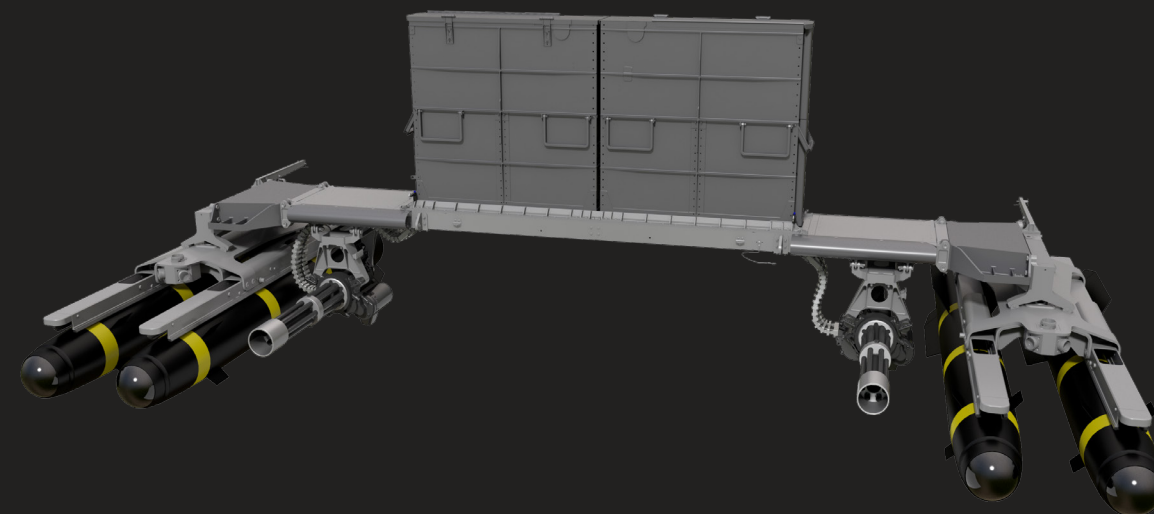
GAU -19B, M134D MINIGUN & LWL12 ROCKET LAUNCHER



DUAL M260 ROCKET LAUNCHERS & DUAL M134D MINIGUNS

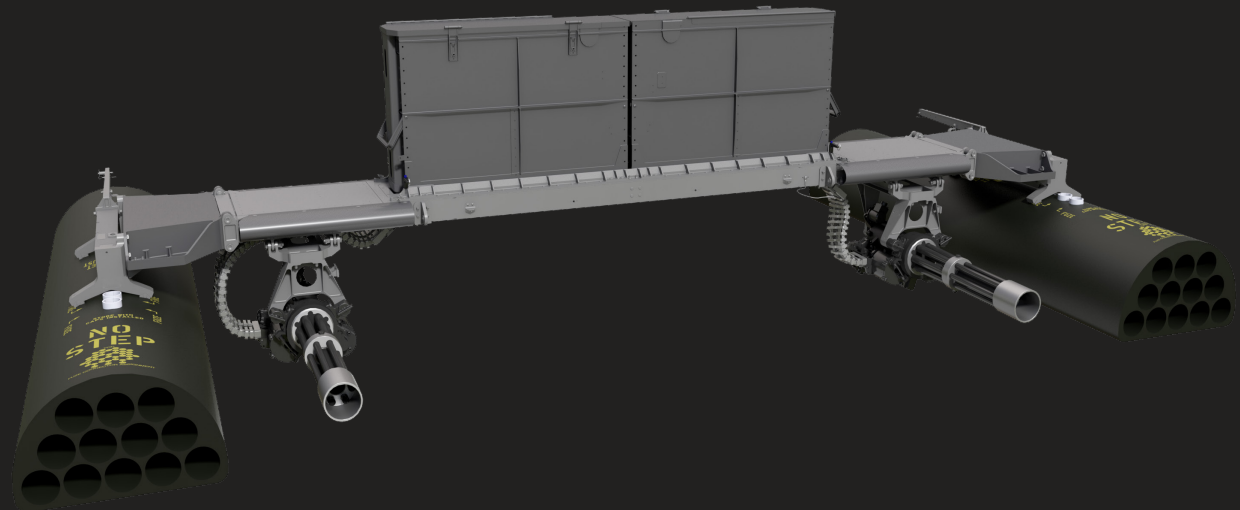


DUAL HMP - 400 & DUAL M134D MINIGUNS

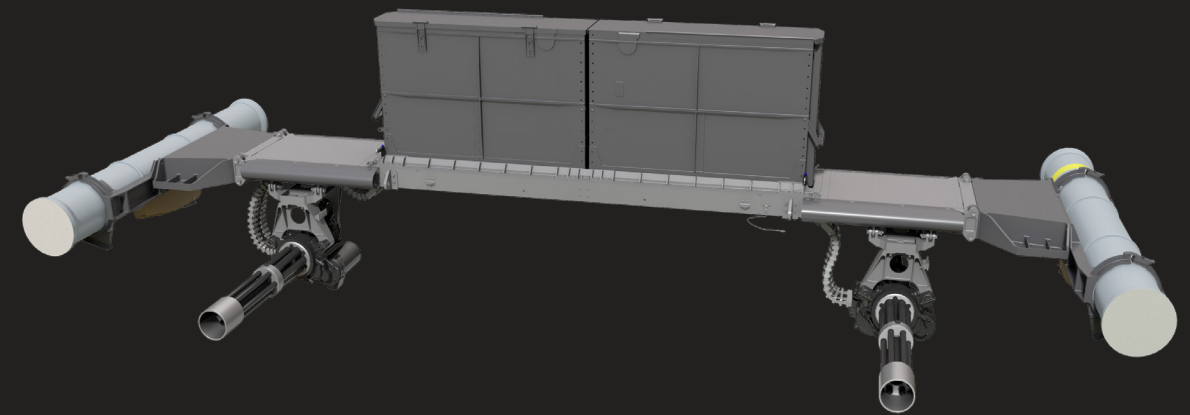


DUAL TWIN HELLFIRE RAILS & DUAL M134D MINIGUNS

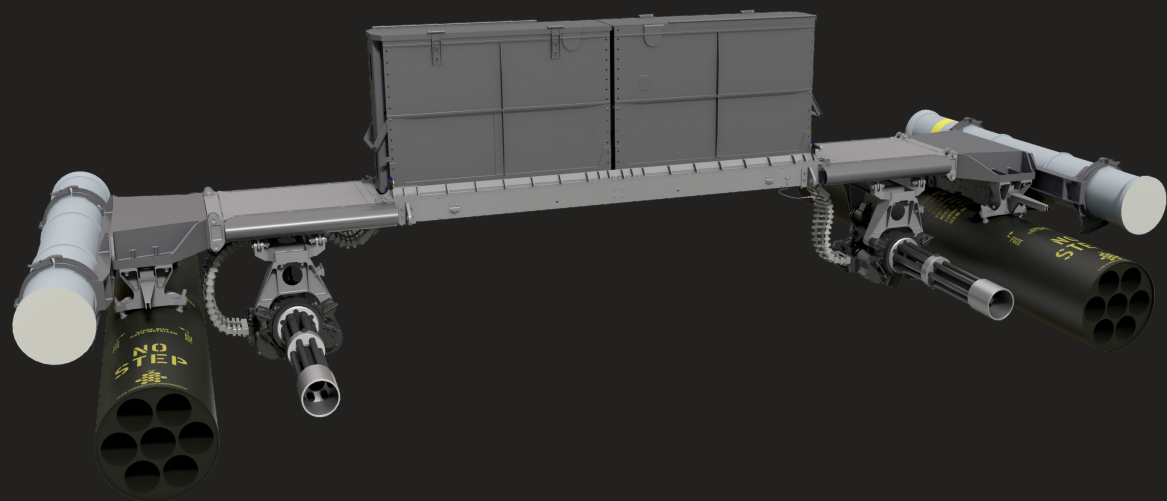




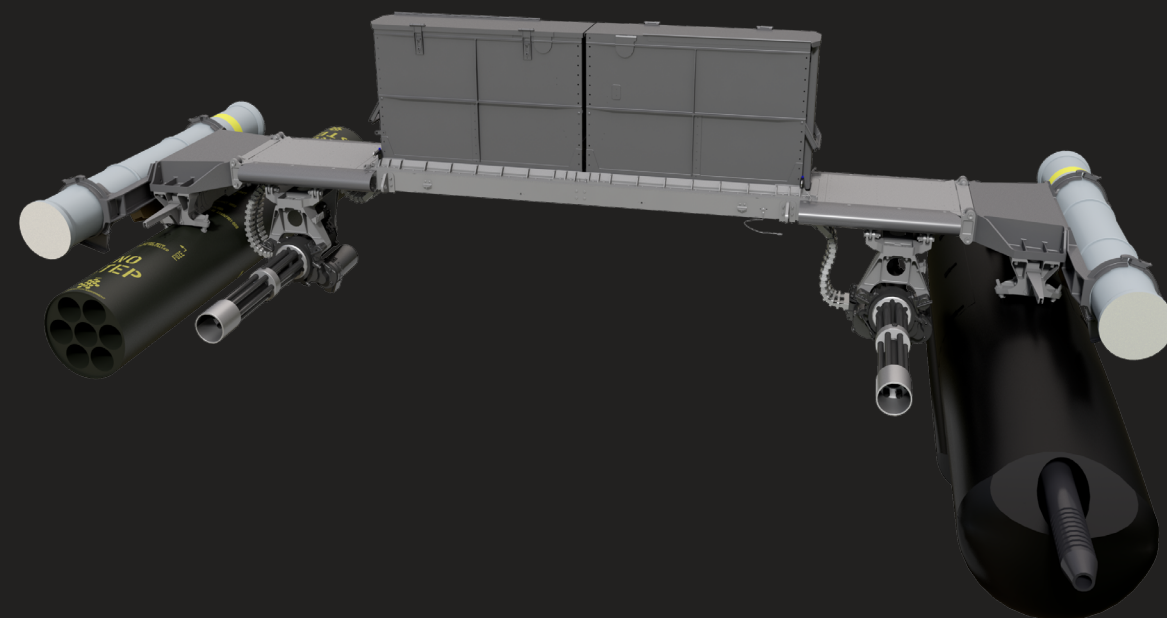
DUAL LWL12 ROCKET LAUNCHERS & DUAL M134D MINIGUNS



DUAL RAYTHEON GRIFFIN® B LAUNCHERS & DUAL M134D  
MINIGUNS



DUAL RAYTHEON GRIFFIN® B LAUNCHERS, DUAL M260  
ROCKET LAUNCHERS & DUAL M134D MINIGUNS



DUAL RAYTHEON GRIFFIN® B LAUNCHERS, M260 ROCKET  
LAUNCHER, DUAL M134D MINIGUNS & HMP - 400

## MCAS WEIGHT SUMMARY

TRIPS CONFIGURATION						
System Weights						
	Legacy*		Phase 2*		Phase 3*	
	Lb	Kg	Lb	Kg	Lb	Kg
A-Kit	17.50	7.94	20.51	9.30	6.12	2.78
B-Kit	102.60	46.54	73.11	33.16	73.11	33.16
Weapon Specific Hardware						
GAU-19	-	-	-	-	-	-
.50 cal magazine	17.50	7.94	13.60	6.17	13.60	6.17
.50 cal feed chute	6.70	3.04	5.79	2.63	5.79	2.63
.50 cal pass-through	0.00	0.00	0.37	0.17	0.37	0.17
M-134	-	-	-	-	-	-
M-134 Mount	10.80	4.90	3.60	1.63	3.60	1.63
7.62mm 3,000 round magazine	28.00	12.70	20.46	9.28	20.46	9.28
7.62mm feed chute	2.60	1.18	0.82	0.37	0.82	0.37
7.62mm pass-through	0.00	0.00	0.38	0.17	0.38	0.17
M260	-	-	-	-	-	-
Total:	185.70	84.23	138.64	62.89	124.25	56.36
Delta:	N/A	N/A	-47.06	-21.35	-61.45	-27.87

\*FOR SYSTEM WEIGHT ESTIMATION ONLY.

\*LEGACY - WEIGHT DATA FROM AWR DOCUMENT AND LEGACY OPERATOR'S MANUAL

\*PHASE 2 - UTILIZES EXISTING MK4 RAIL; WEIGHTS ARE ACTUALS

\*PHASE 3 - REPLACES MK4 RAIL WITH DILLON A-KIT (FAA/AED APPROVED); WEIGHTS ARE ACTUALS

## MCAS WEIGHT SUMMARY

DUALS CONFIGURATION						
System Weights						
	Legacy*		Phase 2*		Phase 3*	
	Lb	Kg	Lb	Kg	Lb	Kg
A-Kit	17.50	7.94	20.51	9.30	6.12	2.78
B-Kit	102.60	46.54	73.11	33.16	73.11	33.16
Weapon Specific Hardware						
M134 x 2	-	-	-	-	-	-
M134 Mount x 2	21.60	9.80	7.20	3.27	7.20	3.27
7.62mm 3,000 round magazine x 2	56.00	25.40	40.92	18.56	40.92	18.56
7.62mm feed chute RH	3.10	1.41	1.70	0.78	1.70	0.78
7.62mm feed chute LH	2.60	1.18	0.82	0.37	0.82	0.37
7.62mm pass-through	0.00	0.00	0.52	0.24	0.52	0.24
M260	-	-	-	-	-	-
Total:	203.40	92.26	144.78	65.68	130.39	59.15
Delta:	N/A	N/A	-58.62	-26.58	-73.01	-33.11

\*FOR SYSTEM WEIGHT ESTIMATION ONLY.

\*LEGACY - WEIGHT DATA FROM AWR DOCUMENT AND LEGACY OPERATOR'S MANUAL

\*PHASE 2 - UTILIZES EXISTING MK4 RAIL; WEIGHTS ARE ACTUALS

\*PHASE 3 - REPLACES MK4 RAIL WITH DILLON A-KIT (FAA/AED APPROVED); WEIGHTS ARE ACTUALS



#### Dillon Aero MCAS for 369/MD-530

- Six stations
- Fully qualified
- Lightweight
- Designed by SOF aviation users
- Field maintainable/repairable
- Complete airframe interchangeability
- Foldable for easy transportability
- Clean/efficient design for ease of operation
- Compatible with future Precision Guided Munitions