

FACTSHEET



A Company with a vision
that knows no boundaries.

AIR FORCE

NAVAL

INFANTRY

ARMOUR



SHELL 155 mm HE M0121

155 mm HE SHELL, DESIGNED TO MEET JBMoU REQUIREMENTS WHILST FULFILLING INSENSITIVE MUNITION CRITERIA AND OFFERING INCREASED TERMINAL EFFECTIVENESS AGAINST INFRASTRUCTURE AND SEMI-HARD TARGETS. CAN BE USED WITH PD SQ, PROXIMITY AND MRF FUZES, MCS AND EXISTING BAGGED CHARGES IN NATO AND OTHER COMPATIBLE 155 mm HOWITZERS OF 39- TO 52-CALIBRE CONFIGURATIONS.



SHELL 155 mm HE M0121

FACTSHEET

UNIQUE FEATURES

- Field interchangeable Boat Tail and Base Bleed.
- Capability against infrastructure.
- IM characteristics.
- Full 52-calibre compatibility.
- Inherent accuracy of design.
- Ballistic similitude within family.
- Capability against semi-hard targets e.g. Infantry Fighting Vehicles.

TECHNICAL CHARACTERISTICS

	BOAT TAIL	BASE BLEED
Total mass unfuzed (kg):	41,8 to 43,4	41,8 to 43,4
Length (mm)	783	804
Explosive type:	PBX	PBX
Explosive mass (kg):	8,8	8,8
Qualification temperatures (°C):	-51 to +63	-51 to +63
Design pressure (MPa):	450	450
Driving band diameter (mm):	107,4	107,4
Fuze cavity:	STD NATO	STD NATO

TYPICAL PERFORMANCE AT +21°C

	52-CALIBRE		39-CALIBRE	
	UNASSISTED	ASSISTED	UNASSISTED	ASSISTED
Muzzle velocity (m/s):	930	948	820	840
Chamber pressure (MPa):	310	335	320	340
Maximum range (km):	> 30	> 40	> 25	> 30
Consistency:				
-50% zone in range (%):	≤0,80	≤0,80	≤0,80	≤0,80
-50% zone in azimuth (mils):	≤2,0	≤2,0	≤2,0	≤2,0

PACKING AND MARKING

Marking:	Standard NATO marking or as per customer requirements.
Packing:	Horizontal 6 pack pallets or as per customer requirements.

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SHELL 155 mm PRACTICE M2000



155 mm LOW FRAGMENTATION SHELL, DESIGNED TO JBMoU REQUIREMENTS AND TYPE QUALIFIED TO STANAG GUIDELINES, WHICH CAN BE USED WITH A SUPER QUICK AND DELAY FUZE OR PROXIMITY FUZE IN NATO AND OTHER COMPATIBLE HOWITZERS OF 39- TO 52-CALIBRE CONFIGURATION.

Unique Features

The boat tail and base bleed units can be totally field interchangeable, ensuring utmost flexibility. All shell types in the Assegai family display

ballistic similitude and utilize the same range tables. The low fragmentation practice shell contains a booster pellet ensuring an audible and visual report upon impact in the target area.

Technical Characteristics

	UNASSISTED	ASSISTED
Total Mass unfuzed (kg):	41,8 to 43,4	41,8 to 43,4
Length (mm):	783	804
Design pressure (MPa):	450	450
Driving band diameter (mm):	157,86	157,86
Fuze cavity:	STD NATO	STD NATO
Explosive type:	RDX/Wax	RDX/Wax
Explosive mass (g):	150	150
Qualification temperatures (°C):	-46 to +63	-46 to +63

Typical Performance at +21°C

	52-CALIBRE		39-CALIBRE	
	UNASSISTED	ASSISTED	UNASSISTED	ASSISTED
Muzzle velocity (m/s):	930	948	820	840
Chamber pressure (MPa):	310	335	320	340
Maximum range (m):	> 30.000	> 40.000	> 25.000	> 31.000
Consistency:				
✓ 50% zone in range (%):	≤ 0,8	≤ 0,8	≤ 0,8	≤ 0,8
✓ 50% zone in azimuth (mils):	≤ 2,0	≤ 2,0	≤ 2,0	≤ 2,0

Packing and Marking

Marking	Standard NATO marking or as per customer requirements
Packing	Horizontal 6 pack pallets or as per customer requirements



SHELL 155 mm CLUSTER HE HC M2001



155 mm HE DPICM SHELL, DESIGNED TO JBMoU REQUIREMENTS AND TYPE QUALIFIED TO STANAG GUIDELINES, WHICH IS USED WITH A TIME FUZE IN NATO AND OTHER COMPATIBLE HOWITZERS OF 39- TO 52-CALIBRE CONFIGURATION.

Unique Features

The boat tail and base bleed units can be totally field interchangeable, ensuring utmost flexibility. The bomblet fuze comprises a self-destruct mechanism,

destroying the complete bomblet. The shell incorporates a spotter charge, indicating the payload point of ejection during daylight operations. All shell types in the Assegai family display ballistic similitude and utilize the same range tables.

Technical Characteristics

	BOAT TAIL	BASE BLEED
Total Mass unfuzed (kg):	41,8 to 43,4	41,8 to 43,4
Length (mm):	783	804
Design pressure (MPa):	450	450
Driving band diameter (mm):	157,86	157,86
Fuze cavity:	STD NATO	STD NATO
Optimum ejection height (m):	600	600
Nominal personnel lethality per bomblet (m ²):	50	50
Nominal armour (RB 390) penetration per bomblet (mm):	120	120
Number of bomblets:	42 per shell	42 per shell
Qualification temperatures (°C):	-46 to +63	-46 to +63

Typical Performance at +21°C

	52-CALIBRE		39-CALIBRE	
	UNASSISTED	ASSISTED	UNASSISTED	ASSISTED
Muzzle velocity (m/s):	930	948	820	840
Chamber pressure (MPa):	310	335	320	340
Maximum range (m):	> 30.000	> 40.000	> 25.000	> 31.000
Consistency:				
✓ 50% zone in range (%):	≤ 0,8	≤ 0,8	≤ 0,8	≤ 0,8
✓ 50% zone in azimuth (mils):	≤ 2,0	≤ 2,0	≤ 2,0	≤ 2,0

Footprint

The payload covers an area of ± 200 m x 200 m when fired at 75% of maximum range.

Packing and Marking

Marking	Standard NATO marking or as per customer requirements
Packing	Horizontal 6 pack pallets or as per customer requirements





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ASSEGAI SERIES



SHELL 155mm SCREENING SMOKE M2002

155mm SCREENING SMOKE SHELL, DESIGNED TO JBMoU REQUIREMENTS AND TYPE QUALIFIED IN ACCORDANCE WITH STANAG GUIDELINES, WHICH IS USED WITH A TIME FUZE IN NATO AND OTHER COMPATIBLE 155mm HOWITZERS OF 39- TO 52-CALIBRE CONFIGURATION.

SHELL 155mm SCREENING SMOKE M2002

UNIQUE FEATURES

The boat tail and base bleed units can be totally field interchangeable, ensuring utmost flexibility. All shells in the Assegai family display ballistic similitude and utilize the same range table. The smoke composition characteristics and emission time can be varied to suit individual customer requirements.

TECHNICAL CHARACTERISTICS

Total mass unfuzed (kg):
 Length (mm):
 Design pressure (MPa):
 Driving band diameter (mm):
 Fuze cavity:
 Optimum deployment height (m):
 Pyrotechnic mass (kg):
 Smoke colour:
 Amount of smoke canisters:
 Emission time visual and IR (s)min:
 IR screen size/canister (m²):
 Qualification temperature (°C):

UNASSISTED	ASSISTED
41,8 to 43,4	41,8 to 43,4
783	804
450	450
157,86	157,86
STD NATO	STD NATO
400	400
4	4
White/Grey	White/Grey
4	4
60	60
60 - 80	60 - 80
-46 to +63	-46 to +63

TYPICAL PERFORMANCE AT 21°C

Muzzle velocity (m/s):
 Chamber pressure (MPa):
 Maximum range (m):
 Consistency:
 50% zone in range (%):
 50% zone in azimuth (mils):

52-CALIBRE		39-CALIBRE	
UNASSISTED	ASSISTED	UNASSISTED	ASSISTED
940	956	820	840
345	365	320	340
>30 000	>40 000	>25 000	>31 000
≤0,96	≤0,96	≤0,96	≤0,96
≤2,0	≤2,0	≤2,0	≤2,0

PACKING AND MARKING

MARKING:

Standard NATO marking or as per customer requirements.

PACKING:

8 or 24 pack pallets or as per customer requirements.

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ASSEGAI SERIES



SHELL 155mm ILLUMINATING BE M2003

155mm ILLUMINATING SHELL,
DESIGNED TO JBM_{6U} REQUIREMENTS
AND TYPE QUALIFIED IN ACCORDANCE
WITH STANAG GUIDELINES, WHICH IS
USED WITH A TIME FUZE IN NATO AND
OTHER COMPATIBLE 155mm HOWITZERS
OF 39- TO 52-CALIBRE CONFIGURATION.

SHELL 155mm ILLUMINATING BE M2003

UNIQUE FEATURES

The boat tail and base bleed units can be totally field interchangeable, ensuring utmost flexibility. All shells in the Assegai family display ballistic similitude and utilize the same range table.

TECHNICAL CHARACTERISTICS

Total mass unfuzed (kg):
 Length (mm):
 Design pressure (MPa):
 Driving band diameter (mm):
 Fuze cavity:
 Optimum deployment height (m):
 Ignition height (m):
 Pyrotechnic mass (kg):
 Nominal luminosity (candela):
 Rate of descent (m/s):
 Nominal burning time (s):
 Composition:

Qualification temperature (°C):

UNASSISTED	ASSISTED
41,8 to 43,4	41,8 to 43,4
783	804
450	450
157,86	157,86
STD NATO	STD NATO
1 000	1 000
550	550
2,4	2,4
1 000 000	1 000 000
4,5	4,5
110	110
Magnesium/Sodium Nitrate/Binder -46 to +63	Magnesium/Sodium Nitrate/ Binder -46 to +63

TYPICAL PERFORMANCE AT 21°C

Muzzle velocity (m/s):
 Chamber pressure (MPa):
 Maximum range (m):
 Consistency:
 50% zone in range (%):
 50% zone in azimuth (mils):

52-CALIBRE		39-CALIBRE	
UNASSISTED	ASSISTED	UNASSISTED	ASSISTED
940	956	820	840
345	365	320	340
>30 000	>40 000	>25 000	>31 000
≤0,96	≤0,96	≤0,96	≤0,96
≤2,0	≤2,0	≤2,0	≤2,0

PACKING AND MARKING

MARKING:

Standard NATO marking or as per customer requirements.

PACKING:

8 or 24 pack pallets or as per customer requirements.

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ASSEGAI SERIES



SHELL 155mm SMOKE BE RED PHOSPHOROUS M2004

**155mm RED
PHOSPHOROUS SHELL,**
DESIGNED TO JBM₀U REQUIREMENTS
AND TYPE QUALIFIED IN ACCORDANCE
WITH STANAG GUIDELINES, WHICH IS
USED WITH A TIME FUZE IN NATO
AND OTHER COMPATIBLE 155mm
HOWITZERS OF 39- TO 52-CALIBRE
CONFIGURATION.

SHELL 155mm SMOKE BE RED PHOSPHOROUS M2004

UNIQUE FEATURES

The boat tail and base bleed units can be totally field interchangeable, ensuring utmost flexibility. All shells in the Assegai family display ballistic similitude and utilize the same range table. The shell has a dual application in the sense that it can be used for both visual obscuration and the ignition of combustible materials.

TECHNICAL CHARACTERISTICS

Total mass unfuzed (kg):
 Length (mm):
 Design pressure (MPa):
 Driving band diameter (mm):
 Fuze cavity:
 Optimum deployment height (m):
 Pyrotechnic mass (kg):
 Smoke colour:
 Nominal burning time (s):
 Nominal burning temperature (°C):
 Pyrotechnic composition (s):

 Qualification temperature (°C):

UNASSISTED		ASSISTED	
41,8 to 43,4		41,8 to 43,4	
783		804	
450		450	
157,86		157,86	
STD NATO		STD NATO	
250		250	
3,8		3,8	
White/Grey		White/Grey	
70		70	
900		900	
Red Phosphorous/ Fuel/Oxidizer/Binder -46 to +63		Red Phosphorous/ Fuel/Oxidizer/Binder -46 to +63	
52-CALIBRE		39-CALIBRE	
UNASSISTED	ASSISTED	UNASSISTED	ASSISTED
940	956	820	840
345	365	320	340
>30 000	>40 000	>25 000	>31 000
≤ 0,96	≤ 0,96	≤ 0,96	≤ 0,96
≤ 2,0	≤ 2,0	≤ 2,0	≤ 2,0

TYPICAL PERFORMANCE AT 21°C

Muzzle velocity (m/s):
 Chamber pressure (MPa):
 Maximum range (m):
 Consistency:
 50% zone in range (%):
 50% zone in azimuth (mils):

PACKING AND MARKING

MARKING:

Standard NATO marking or as per customer requirements.

PACKING:

8 or 24 pack pallets or as per customer requirements.

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ASSEGAI SERIES



SHELL 155mm HE V-LAP M2005

155mm HE SHELL,
DESIGNED TO JBMoU REQUIREMENTS
AND TYPE QUALIFIED TO STANAG
GUIDELINES, WHICH CAN BE USED WITH
A SUPER QUICK AND DELAY FUZE OR
PROXIMITY FUZE IN NATO AND OTHER
COMPATIBLE 155mm HOWITZERS OF
39- TO 52-CALIBRE CONFIGURATION.

SHELL 155mm HE V-LAP M2005

UNIQUE FEATURES

A remarkable feature of our 155mm V-LAP is a base bleed unit and rocket propulsion as standard components - a far reaching expression of innovation without parallel in the field of modern artillery technology. The 155mm V-LAP shell is at the forefront of modern artillery technology and will extend the maximum range of your 39- to 52-Calibre Howitzer by 30%.

TECHNICAL CHARACTERISTICS

Total mass unfuzed (kg):	41,8 to 43,4
Length (mm):	804
Explosive type:	TNH
Explosive mass (kg):	4,5
Design pressure (MPa):	450
Driving band diameter (mm):	157,86
Fuze cavity:	STD NATO
Qualification temperature (°C):	-46 to +63

TYPICAL PERFORMANCE AT 21°C

Muzzle velocity (m/s):
Chamber pressure (MPa):
Maximum range (m):
Consistency:
50% zone in range (%):
50% zone in azimuth (mils):

52-CALIBRE	39-CALIBRE
956	840
365	340
> 52 000	> 41 000
≤ 1,2	≤ 1,2
≤ 2,5	≤ 2,5

PACKING AND MARKING

MARKING:

Standard NATO marking or as per customer requirements.

PACKING:

8 or 24 pack pallets or as per customer requirements.

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