# Shock ★ Star<sup>®</sup> MS Detonators

PRODUCT INFORMATION BROCHURE

Shock ★ Star MS Series In-Hole Delays are available in a sequence of 31 whole number periods from instantaneous (0 ms) to 1000 ms. They are designed to be used as down-hole detonators for the initiation of cast boosters, high explosives or pneumatically loaded ANFO. In-Hole Delays come equipped with a T-Connector for compatibility with detonating cord initiation or can be initiated by an electric or non-electric detonator or approved shock tube starter device.

### **ADVANTAGES**

- 900 mg base charge of PETN to ensure strong initiation energy under even the most extreme conditions.
- Delay composition encased in a zinc jacket to prevent performance loss due to transient pressure from nearby detonating holes.
- Equipped with a tear-proof delay tag that lists DSC, delay time, delay period and length of the detonator.
- Manufactured with bright yellow shock tubing for high visibility.





### STANDARD TECHNICAL DESCRIPTION

Non-electric, millisecond delay detonators



# Shock ★ Star<sup>®</sup> MS Detonators

## STANDARD PACKAGING DETAIL

IN-HOLE MS DETONATORS									
Length		Coil	Quantity	NEQ					
(ft)	(m)	Style	Quantity	Grams					
12	3.7	Fast 8	70	70					
16	4.9	Fast 8	70	70					
20	6.1	Fast 8	60	60					
30	9.2	Fast 8	60	60					
40	12.2	Fast 8	50	50					
50	15.3	Fast 8	40	40					
60	18.3	Fast 8	40	40					
80	24.4	Fast 8X	30	30					
100	30.5	Fast 8X	20	20					
120	36.6	Fast 8X	20	20					
130	39.7	Spool	10	10					
150	45.8	Spool	10	10					
160	48.8	Spool	10	10					
180	54.9	Spool	10	10					
200	61.0	Spool	10	10					

Available Periods – MS Delays								
Period#	0	1	2	3	4	5		
Delay (ms)	0	25	50	75	100	125		
Period#	6	7	8	9	10	11		
Delay (ms)	150	175	200	225	250	275		
Period#	12	13	14	15	16	17		
Delay (ms)	300	325	350	375	400	425		
Period#	18	19	20	22	24	26		
Delay (ms)	450	475	500	600	700	800		
Period#	28	30						
Delay (ms)	900	1000						

#### STORAGE

Store in accordance with all applicable local, state, provincial and federal laws.

#### SHELF LIFE

For optimum accuracy, use within three years from date of manufacture under good storage conditions.

#### **TRANSPORTATION DATA**

#### **UN CLASSIFICATION**

Shipping Name: Detonators Assemblies, Non-Electric Class & Division: 1.1B, 1.4B (depending on case count) ID Number: UN 0361

#### **US DOT REFERENCE NUMBER**

EX-2012070727 EX-2012081113

**Disclaimer of Warranties and Limitations of Liabilities:** Products described in this bulletin are sold by Austin Powder Company without warranty; express, implied or statutory or as to MERCHANTABILITY, except as expressly stated in Austin Powder's straight bill of lading. Under no circumstances shall seller be liable for loss of anticipated profits, consequential damages or incidental damages.

© 2020 Austin Powder Company. All rights reserved.

For more information and service locations in your area, please contact Austin Powder Company's headquarters:



Austin Powder Company, 25800 Science Park Drive Phone: 1-800-321-0752| Fax: 1-216-464-4418 | Email: info@austinpowder.com | <u>www.austinpowder.com</u>

1/2/02 | r 01/31/2020