

# Shock★Star MS

PRODUCT INFORMATION BROCHURE

**Shock★Star MS** series in-hole delays are available in a sequence of 31 delays from instantaneous (0 ms) to 1,000 ms.

They are designed to be used as down-hole detonators for the initiation of cast boosters and high explosives.

In-hole delays can be equipped with a T-connector for compatibility with detonating cord initiation or can be initiated by another electric or non-electric detonator.



## BENEFITS

- 720 mg base charge.
- Excellent delay time accuracy ensures greater than 99% probability of in-sequence initiation.
- Manufactured with yellow Shock Tube for easy differentiation from surface detonators when inspecting the connected blast pattern.
- High impact protection.

## DELAY SEQUENCE

Delay #	0	1	2	3	4	5	6	7
Nominal delay (ms)	0	25	50	75	100	125	150	175
Delay #	8	9	10	11	12	13	14	15
Nominal delay (ms)	200	225	250	275	300	325	350	375
Delay #	16	17	18	19	20	21	22	23
Nominal delay (ms)	400	425	450	475	500	550	600	650
Delay #	24	25	26	27	28	29	30	X
Nominal delay (ms)	700	750	800	850	900	950	1,000	X



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## STANDARD TECHNICAL DESCRIPTION

<b>Detonator</b>	
Detonator shell material	Aluminum
Base charge	720 mg
Water pressure resistance	0.3 MPa / 7 days
Temperature range for application	from -30 °C to +60 °C
Shelf life (storage conditions)	2 years (-30 °C to +40 °C, R.H. max. 65%) in original, sealed package
Label marking	Delay #, Detonator type, Delay ms, ST length, Data matrix code (traceability)
Notified body	CE 0589
<b>Shock Tube</b>	
Velocity of detonation	2,000 ± 100 m/s
Color	Yellow

## STANDARD PACKAGING DETAILS

Shock Tube length (m)	Packaging 1.1B UN 0360			Packaging 1.4S UN 0500		
	Units / Bag	No. of Bags	Units / Box	Units / Bag	No. of Bags	Units / Box
4.8	10	12	120	20	4	80
6	10	10	100	10	7	70
9	10	8	80	10	5	50
12	10	5	50	10	4	40
15	5	8	40	10	3	30
18	5	7	35	5	4	20
21	5	6	30	5	4	20
24	5	6	30	5	4	20
27	5	5	25	5	4	20
30	5	5	25	3	5	15

Shock★Star MS detonators are packaged in cardboard carton of outer dimension 390x235x295 mm. Packaging 1.4B UN 0361 and other lengths of Shock Tube are possible on demand.

Contact your local Austin Powder representative for further information.

### Disclaimer of Warranties and Limitations of Liabilities

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