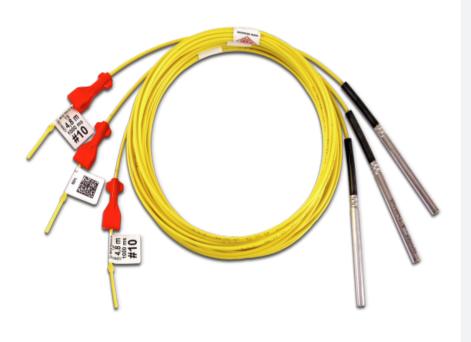


PRODUCT INFORMATION BROCHURE

SHOCK*STAR TS



SHOCK*STAR TS detonator products are available in a sequence of 40 delays from 25 ms to 9,000 ms.

1.4S

Austin's TS delay sequence is appropriate for applications such as tunnelling and shaft or raise mining, where long delays are required between holes to allow for the movement of broken rock.

They are designed to be used as in-hole detonators for the initiation of cast boosters and high explosives. In-hole detonators may be equipped with a T-connector for compatibility with detonating cord initiation.

BENEFITS

- 720 mg base charge.
- High impact protection.
- Manufactured with a bright yellow Shock Tube for high visibility.
- Excellent delay time accuracy ensures a greater than 99% probability of insequence initiation.

PRODUCT OVERVIEW

DELAY SEQUENCE

| Delay # | 0 | 1 | 1 ½ | 2 | 2 ½ | 3 | 3 ½ | 4 |
|--------------------|------------|-------|------------|-------|------------|-------|------------|-------|
| Nominal delay (ms) | 25 | 100 | 150 | 200 | 250 | 300 | 350 | 400 |
| Delay # | 4 ½ | 5 | 5 ½ | 6 | 6 ½ | 7 | 7 1⁄2 | 8 |
| Nominal delay (ms) | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 |
| Delay # | 8 1⁄2 | 9 | 9 ½ | 10 | 11 | 12 | 14 | 16 |
| Nominal delay (ms) | 850 | 900 | 950 | 1,000 | 1,100 | 1,200 | 1,400 | 1,600 |
| Delay # | 18 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| Nominal delay (ms) | 1,800 | 2,000 | 2,500 | 3,000 | 3,500 | 4,000 | 4,500 | 5,000 |
| Delay # | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| Nominal delay (ms) | 5,500 | 6,000 | 6,500 | 7,000 | 7,500 | 8,000 | 8,500 | 9,000 |

STANDARD TECHNICAL DESCRIPTION

| DETONATOR | | | | | |
|-----------------------------------|---|--|--|--|--|
| Detonator shell material | Aluminum | | | | |
| Base charge | 720 mg | | | | |
| Water pressure resistivity | 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 | | | | |
| SHOCK TUBE | | | | | |
| Velocity of detonation | 2,000 ± 100 m/s | | | | |
| Color | Yellow | | | | |

STANDARD PACKAGING

| Shook Tubo | Packaging 1.4S UN 0500 | | | | | |
|--------------------------|------------------------|-------------|---------------------|--|--|--|
| Shock Tube length (m) | Units per Bag | No. of Bags | Units per Carton | | | |
| 4.8 | 20 | 4 | 80 | | | |
| 6.0 | 10 | 7 | 70 | | | |
| 7.8 | 10 | 5 | 50 | | | |

Packaging: Cardboard carton of outer dimension 390 x 235 x 295 mm

Contact your local Austin Powder representative for further information.

AUSTIN POWDER

Disclaimer of Warranties and Limitations of Liabilities

Any information contained herein is based on the manufacturer's standard procedures in use at the time of publication. Any specifications, test values and other data is solely preliminary information and not guaranteed. Actual results may differ during field use. Neither manufacturer nor seller will be responsible whatsoever for any losses or damages resulting from the use or reliance upon any information set forth herein. It is solely the responsibility of the product user to determine the safe conditions for use of the products referred to herein. Use of any products by a user is at the user's sole risk. To the maximum extent permitted by law, manufacturer and seller specifically disclaim all warranties including implied warranties of merchantability or fitness for a particular purpose.



Our Mission is to improve the world we live in through the safe and responsible use of explosives.