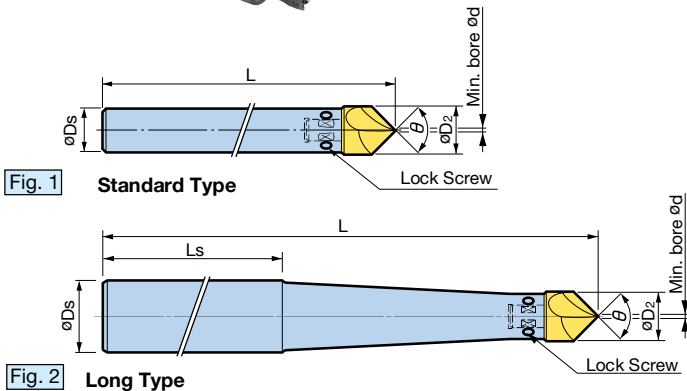


Accurate positioning of drill holes and chamfering can be performed simultaneously.

- Uses high-precision throwaway bit with superb sharpness.
- Since the cutting edge can be replaced, there is no need for regrinding and the performance remains stable at all times.
- Long shank type with less workpiece interference.



Chamfering angles 90° & 120°



The ● mark in the table indicates long type.

| Chamfering angle $\theta$ | Model               | Fig. | $\phi D_s$ | $\phi D_2$ | $\phi d$    | L           | Ls  | Compatible Bit Model | Spare Lock Screw (Optional) |
|---------------------------|---------------------|------|------------|------------|-------------|-------------|-----|----------------------|-----------------------------|
| 90°                       | ST10-CBY09010       | 1    | 10         | 10         | 0.9         | 150         | -   | CBY09010-5P          | H0403-5P                    |
|                           | ST12-CBY09013       |      | 12         | 13         |             |             |     | CBY09013-5P          |                             |
|                           | ST16-CBY09016       |      | 16         | 16         | CBY09016-5P | H0504-5P    |     |                      |                             |
|                           | ST20-CBY09022       |      | 20         | 22         | 1.5         | CBY09022-5P |     | H0505-5P             |                             |
|                           | ST20-CBY09013-220 ● | 2    | 20         | 13         | 0.9         | 220         | 120 | CBY09013-5P          | H0403-5P                    |
|                           | -260 ●              |      |            |            |             | 260         |     | CBY09022-5P          |                             |
|                           | ST32-CBY09022-260 ● |      |            |            |             | 260         |     | H0505-5P             |                             |
| -300 ●                    | 300                 |      |            |            |             |             |     |                      |                             |
| 120°                      | ST12-CBY12013       | 1    | 12         | 13         | 0.9         | 150         | -   | CBY12013-5P          | H0403-5P                    |

- 2 throwaway bits are included.
- Lock Screw is included. 5-piece sets are sold under the above model number for spare part orders.

⚠ Use with hand feed is not recommended.

### <Throwaway Bit>

Precision-finished cutting edge with superb sharpness.  
 Since the bit can be replaced, there is no need for regrinding and the performance remains stable at all times.



| Chamfering angle $\theta$ | Model       | Compatible Body Model       |
|---------------------------|-------------|-----------------------------|
| 90°                       | CBY09010-5P | ST10-CBY09010               |
|                           | CBY09013-5P | ST12-CBY09013/ST20-CBY09013 |
|                           | CBY09016-5P | ST16-CBY09016               |
|                           | CBY09022-5P | ST20-CBY09022/ST32-CBY09022 |
| 120°                      | CBY12013-5P | ST12-CBY12013               |

· Bits are sold as 5-piece sets.  
 (Bit material) High-speed steel/TiN coating

### Cutting Conditions

| Model       | Chamfering |     |           |      |          |      | Centering |      |           |     |          |      |
|-------------|------------|-----|-----------|------|----------|------|-----------|------|-----------|-----|----------|------|
|             | Steel      |     | Cast Iron |      | Aluminum |      | Steel     |      | Cast Iron |     | Aluminum |      |
|             | Vc         | f   | Vc        | f    | Vc       | f    | Vc        | f    | Vc        | f   | Vc       | f    |
| CBY09010... | 20         | 0.1 | 20        | 0.12 | 45       | 0.15 | 25        | 0.08 | 30        | 0.1 | 50       | 0.15 |
| CBY09013... | 25         |     | 25        |      | 50       |      | 30        |      | 35        |     | 55       |      |
| CBY12013... | 30         |     | 35        |      | 55       |      | 45        |      | 40        |     | 60       |      |
| CBY09016... | 35         |     | 40        |      | 60       |      | 50        |      | 45        |     | 65       |      |
| CBY09022... | 35         |     | 40        |      | 60       |      | 50        |      | 45        |     | 65       |      |

- Vc: Cutting speed (m/min) f: Feed (mm/rev).
- The values in this table are only for reference and should be adjusted based on workpiece hardness, rigidity, and chamfering amount.
- Lower the cutting speed Vc if chatter occurs.
- Keep the projection length as short as possible.