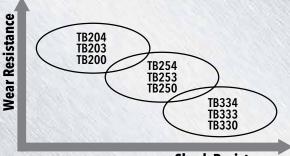
# PRODUCT NEWS

## **BRAZED HEAD GRADE CONSOLIDATION**

### **Effective November 30th, 2012**

Ingersoll has offered many grade variations and coating options in the BTA brazed head product in the past. In an effort to simplify the process of choosing the appropriate grade for your application, Ingersoll is announcing the following consolidated grade offering in the brazed drill heads.

| NEW UNCOATED | TIAIN COATED | ZAP COATED |
|--------------|--------------|------------|
| TB200        | TB203        | TB204      |
| TB250        | TB253        | TB254      |
| TB270        | TB273        | TB274      |
| TB330        | TB333        | TB334      |



**Shock Resistance** 

**TB254**, which has a good balance of wear resistance and shock resistance, is the first recommendation for carbon steels, alloy steels and stainless steels.

**TB334** is the first recommendation where primary concern is shock resistance.

**TB204** is the first recommendation where the primary concern is wear resistance.

**TB274** is the first recommendation for heat resistant alloys, titanium alloys and cast iron.

#### **CONVERSION CHART TO NEW GRADES:**

| TDOOO |          |       | TDOOD | 8        |       | TDOOA |          |       |  |
|-------|----------|-------|-------|----------|-------|-------|----------|-------|--|
| TB220 | •        | TB200 | TB223 |          | TB203 | TB224 | <b>→</b> | TB204 |  |
| TB900 | <b>→</b> | 15200 | TB903 | <b>→</b> | 10203 | TB904 | <b>→</b> | IDZUT |  |
| TB260 | -        | TD2E0 | TB263 | -        | TD2E2 | TB264 | <b>→</b> | TDOEA |  |
| TB350 | <b>→</b> | TB250 | TB353 | <b>→</b> | TB253 | TB354 | <b>→</b> | TB254 |  |
| TB450 | -        |       | TB453 | <b>→</b> |       | TB454 | -        |       |  |
| TB460 | <b>→</b> | TB330 | TB463 | •        | TB333 | TB464 | <b>+</b> | TB334 |  |
| TB470 |          |       | TB473 |          |       | TB474 |          |       |  |
| TB290 | -        | TB270 | TB293 | -        | TB273 | TB294 | <b>→</b> | TB274 |  |

## **PRODUCT NEWS**

#### **CARBIDE GRADES:**

|     | WEAR RESISTANCE |         |       |       | <>    |       |       |       | TOUGHNESS |      |
|-----|-----------------|---------|-------|-------|-------|-------|-------|-------|-----------|------|
| ISO | 5               | 10      | 15    | 20    | 25    | 30    | 35    | 40    | 45        | 50   |
|     |                 |         | TB20X |       | 100   |       |       |       |           | 1.50 |
| P   |                 |         | 11.11 |       | TB25X |       | - 8.7 | 14 11 |           |      |
|     | 16 100          |         |       | 100   |       | TB25X |       |       |           |      |
| M   | 77.77           | 200     | 17    |       | 13    |       | TB33X |       |           |      |
| K   | 11.00           | Willey. |       | TB27X |       |       |       |       |           |      |
| N   |                 |         | TB27X |       |       |       |       | 1     |           |      |
| S   |                 |         |       | TB27X |       |       |       |       |           |      |

**COATING OPTIONS:** Replace "X" in chart above with coating code.

| CODE       | DESCRIPTION              | FEATURE   |  |  |  |
|------------|--------------------------|---|--|--|--|
| 4          | 4 Element Coating        | First recommendation, high resistance against heat and adhesion |  |  |  |
| 3          | TiAIN+ Surface Treatment | Improved resistance against adhesion                            |  |  |  |
| 0 Uncoated |                          | Standard resistance against heat                                |  |  |  |

#### **PLEASE NOTE:**

From now until November 30th, repeat orders for older grades will be processed based on availability of raw material. New orders will not be accepted.

After November 30th, orders for old grades will be automatically changed to the alternative grade.