

SET SCREW  
GRADE 5 UNC



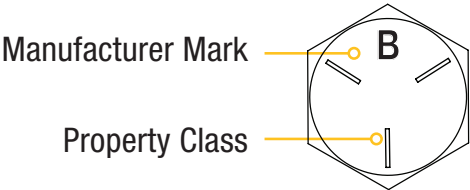
APPLICATION

Bremick® Hex Head UNC Grade 5 set screws are designed for industrial and construction applications where high tensile superior performance is required

PRODUCT ATTRIBUTES

|                        |                              |
|------------------------|------------------------------|
| Material Class:        | Carbon Steel Grade 5         |
| Thread Form:           | Class 2A                     |
| Finish:                | Zinc Plated                  |
| Standard:              | Complies to AS/NZS 2465:1999 |
| Mechanical Properties: | Complies to SAE J429:2014    |
| Chemical Composition:  | Complies to SAE J429:2014    |

HEAD MARKING



In some cases, the Bremick head mark will be replaced by the mark of the original manufacturer

MECHANICAL PROPERTIES

| PROPERTIES   | TENSILE STRENGTH<br>(ksi) | STRESS UNDER<br>PROOF LOAD (ksi) | HARDNESS       |     |
|--------------|---------------------------|----------------------------------|----------------|-----|
|              |                           |                                  | ROCKWELL (HRC) |     |
|              | MIN                       | NOM.                             | MIN            | MAX |
| GRADE 5 ≤ 1" | 120                       | 85                               | 25             | 34  |
| GRADE 5 > 1" | 105                       | 74                               | 19             | 30  |

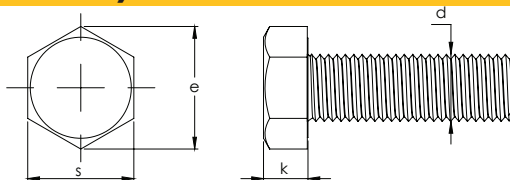
CHEMICAL COMPOSITION (%)

| MATERIAL     | C    |      | P     | S     | B   | TEMPERING TEMPERATURE °C |
|--------------|------|------|-------|-------|-----|--------------------------|
|              | MIN  | MAX  | MAX   | MAX   | MAX | MIN                      |
| CARBON STEEL | 0.25 | 0.55 | 0.025 | 0.025 | -   | 425                      |

FINISH INFORMATION

| ZINC PLATED                                                                                                                                                                                      |                                                                                                                                                                        |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| DESCRIPTION                                                                                                                                                                                      | OVERVIEW                                                                                                                                                               | CORROSION RESISTANCE |
| Zinc Plating is a process of depositing a thin layer of zinc onto the surface of a steel object through electroplating. The steel object is then passivated with a transparent conversion layer. | Bremick® Zinc Plated Coating provides a low level of corrosion protection and is recommended for dry internal application. Bremick® Zinc Plating complies with AS1789. | Low.                 |

## DIMENSIONAL DATA (inches)



| DIAMETER<br>(inches) | TPI | ACROSS FLATS (s) |       | ACROSS CORNERS (e) |       | HEAD HEIGHT (k) |       | SHANK DIAMETER (d) |        |
|----------------------|-----|------------------|-------|--------------------|-------|-----------------|-------|--------------------|--------|
|                      | UNC | MIN              | MAX   | MIN                | MAX   | MIN             | MAX   | MIN                | MAX    |
| 1/4                  | 20  | 0.428            | 0.438 | 0.488              | 0.505 | 0.150           | 0.163 | 0.2450             | 0.2500 |
| 5/16                 | 18  | 0.489            | 0.500 | 0.557              | 0.577 | 0.195           | 0.211 | 0.3065             | 0.3125 |
| 3/8                  | 16  | 0.551            | 0.562 | 0.628              | 0.650 | 0.226           | 0.243 | 0.3690             | 0.3750 |
| 7/16                 | 14  | 0.612            | 0.625 | 0.698              | 0.722 | 0.272           | 0.291 | 0.4305             | 0.4375 |
| 1/2                  | 13  | 0.736            | 0.750 | 0.840              | 0.866 | 0.302           | 0.323 | 0.4930             | 0.5000 |
| 9/16                 | 12  | 0.798            | 0.812 | 0.910              | 0.938 | 0.348           | 0.371 | 0.5545             | 0.5625 |
| 5/8                  | 11  | 0.922            | 0.938 | 1.051              | 1.083 | 0.378           | 0.403 | 0.6170             | 0.6250 |
| 3/4                  | 10  | 1.100            | 1.125 | 1.245              | 1.299 | 0.455           | 0.483 | 0.7410             | 0.7500 |
| 7/8                  | 9   | 1.285            | 1.312 | 1.465              | 1.516 | 0.531           | 0.563 | 0.8860             | 0.8750 |
| 1                    | 8   | 1.469            | 1.500 | 1.675              | 1.732 | 0.591           | 0.627 | 0.9900             | 1.0000 |
| 1 1/8                | 7   | 1.631            | 1.688 | 1.859              | 1.949 | 0.658           | 0.718 | 1.1140             | 1.1250 |
| 1 1/4                | 7   | 1.812            | 1.875 | 2.066              | 2.165 | 0.749           | 0.813 | 1.2390             | 1.2500 |
| 1 3/8                | 6   | 1.994            | 2.062 | 2.273              | 2.382 | 0.810           | 0.878 | 1.3630             | 1.3750 |
| 1 1/2                | 6   | 2.175            | 2.250 | 2.480              | 2.598 | 0.902           | 0.974 | 1.4880             | 1.5000 |
| 1 3/4                | 5   | 2.538            | 2.625 | 2.893              | 3.031 | 1.054           | 1.196 | 1.7160             | 1.7850 |
| 2                    | 4.5 | 2.900            | 3.000 | 3.305              | 3.464 | 1.175           | 1.388 | 1.9640             | 2.0390 |

Note: Dimensions for diameters > 1-1/2 are manufactured to ASME B18.2.1

## SOCKET OR SPANNER SIZE (inches)

| BOLT DIAMETER | 1/4  | 5/16 | 3/8  | 7/16 | 1/2 | 9/16  | 5/8   | 3/4   | 7/8    | 1     | 1 1/8   | 1 1/4 | 1 3/8  | 1 1/2 | 1 3/4 | 2 |
|---------------|------|------|------|------|-----|-------|-------|-------|--------|-------|---------|-------|--------|-------|-------|---|
| SPANNER SIZE  | 7/16 | 1/2  | 9/16 | 5/8  | 3/4 | 13/16 | 15/16 | 1-1/8 | 1-5/16 | 1-1/2 | 1-11/16 | 1-7/8 | 2-1/16 | 2-1/4 | 2-5/8 | 3 |

## THREAD LENGTH

Thread length is equivalent to bolt length as set screws are fully threaded