\\ \title{
METAL FASTENING\\ \title{
METAL FASTENING \\ Systems, Inc
}

## WWWW.metaliastenimgsystemsscom

## Dril-Quik

Cupped Hex Head Self-Drilling Screws For Metal Applications


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## Screw Terminology

Description: \#12-14 X 1-1/4" Cupped Hex Washer Head SD2.5 with EPDM Sealing Washer. 1000 hour salt spary coating


| Major <br> Diameter | Threads <br> Parknch | $\begin{aligned} & \text { Screw } \\ & \text { Length } \end{aligned}$ | Point Tyoc | Head Styse |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

# METAL FASTENING <br> Systems Inc Dril-Quik 1/4-14 Cupped Hex Washer HDSD1 Lap/Stitch Panel to Panel Fastener 



Features and Benefits

- Self-drill point for fast installation
- Integral cupped hex washer head with EPDM sealing washer
- 1000 hour coated

Product Selection

| Material No. | Fastener Length | Thread Length | * | Description | CartonWt. (lbs.) |
| :--- | :--- | :--- | :--- | :---: | :--- |
| Carton Qty. |  |  |  |  |  |
| 14140875 HW1CC | $7 / 8^{\prime \prime}$ | Full | $1 / 4-14 X 7 / 8^{\prime \prime}$ CUPPED HEX WASHER HD SD1 | 38 | 2,500 |

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.
Product Specifications
Diameter: 1/4"
Threads Per Inch: 14
Head Style: $\quad 5 / 16^{\prime \prime}$ dia. cupped HWH AF
Washer:
EPDM sealing washer

Application
Panel to panel side lap, end lap, and other stitch applications

Drill Point:
Drill Capacity:
Thread Major Dia:
Thread Minor Dia:

SD1
0.030-0.095"
0.244 "
0.189"

Performance Data

| Material Strength |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| Tensile | 3600 lbf |  | 204 lbf |  |  |  |  |
| Shear | 2700 lbf |  | 26 Ga |  |  |  |  |
| 24 Ga | 304 lbf |  |  |  |  |  |  |
| Torsional | $150 \mathrm{lbf} \cdot \mathrm{in}$ |  | 22 Ga |  |  |  |  |

Installation and Application Considerations
Tools: 0-2000 rpm screw gun equipped with depth sensing
Composite thickness should not exceed 0.095"
nose piece.

Use of impact guns or hammer drills is not recommended.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent guaranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

#  \#12-14 Cupped Hex Washer Head SD Metal to Metal Fastener 



Features and Benefits

- Integral cupped hex washer head with EPDM sealing washer
- Precision cold forged assuring superior strength and the fastest drilling time performance
- Designed to have low driving and thread engagement torque and provide maximum clamp load
- Special long pilot length to accommodate nested purlins
- 1000 hour coated

| Product Selection |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Material No. | Fastener Length | Thread Length* | Description | CartonWt. (lbs.) | Carton Qty. |
| 12140750HW3CC | 3/4" | Full | 12-14X3/4" CUPPED HEX WASHED HD SD3 | 28 | 2,500 |
| 12141000 HW 3 CC | 11 | Full | 12-14X1" CUPPED HEX WASHER HD SD3 | 34 | 2,500 |
| 12141250HW25CC | 1-1/4 ${ }^{\text {n }}$ | Full | 12-14X1-1/4" CUPPED HEX WASHER HD SD2.5 | 35 | 2,500 |
| 12141500 HW 3 CC | 1-1/2" | Full | 12-14X1-1/2" CUPPED HEX WASHER HD SD2.5 | 41 | 2,500 |
| 12142000 HW 3 CC | 2 " | Full | 12-14X2 ${ }^{\prime \prime}$ CUPPED HEX WASHER HD SD3 | 20 | 1,500 |

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.

| Product Specifications | Drill Point: | SD3 |  |
| :--- | :--- | :--- | :--- |
| Diameter: | $\# 12$ | Drill Capacity: | $0.035-0.210^{\prime \prime}$ |
| Threads Per Inch: | 14 | Thread Major Dia: | $0.212^{\prime \prime}$ |
| Head Style: | $5 / 16^{\prime \prime}$ dia. Cupped HWH AF | Thread Minor Dia: | $0.160^{\prime \prime}$ |
| Washer: | EPDM sealing washer |  |  |


| Performance Data |
| :--- |
| Per <br> Material Strength |
| Tensile |

Installation and Application Considerations

| Pull Out Strength Steel |  | ICC protocol 65 ksi | Pull Over Strength Steel |  |
| :--- | :--- | :--- | :--- | :---: |
| 18 Ga | 575 lbf | 26 Ga | 692 lbf |  |
| 16 Ga | 717 lbf | 24 Ga | 1102 lbf |  |
| 14 Ga | 899 lbf | 22 Ga | 1298 lbf |  |
| 12 Ga | 1255 lbf |  |  |  |
| 10 Ga | 1610 lbf |  |  |  |

Fastener length should provide for a minimum of $3 / 16^{\prime \prime}$ penetration of fully developed threads into metal substrate. nose piece.
Use of impact guns or hammer drills is not recommended.


Application
Metal panel to light and medium gauge metal application

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent guaranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsibleplanner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

# METAL FASTENING <br> svoms inc Dril-Quik 1/4-14 Cupped Hex Washer Head SD3 Metal to Metal Fastener 

Features and Benefits

- Integral cupped hex washer head with EPDM sealing washer
- Precision cold forged assuring superior strength and the fastest drilling time performance
- Designed to have low driving and thread engagement torque and provide maximum clamp load
- Special long pilot length to accommodate nested purlins
- 1000 hour coated


| Product Selection <br> Material No. | Fastener Length | Thread Length* | Description | CartonWt.(lbs.) | Carton Qty. |
| :--- | :--- | :--- | :--- | :---: | :--- |
| 14141000 HW3CC | $1 "$ | Full | $1 / 4-14$ X1" $^{\prime \prime}$ CUPPED HEX WASHED HD SD3 | 37 | 2,500 |
| 14141250 HW3CC | $1-1 / 4^{\prime \prime}$ | Full | $1 / 4-14 X 1-1 / 4^{\prime \prime}$ CUPPED HEX WASHER HD SD3 | 44 | 2,500 |

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.

Product Specifications

| Product Specifications | Drill Point: | SD3 |  |
| :--- | :--- | :--- | :--- |
| Diameter: | $1 / 4^{\prime \prime}$ | Drill Capacity: | $0.110-0.250^{\prime \prime}$ |
| Threads Per Inch: | 14 | Thread Major Dia: | $0.243^{\prime \prime}$ |
| Head Style: | $5 / 16^{\prime \prime}$ dia. Cupped HWH AF | Thread Minor Dia: | $0.188^{\prime \prime}$ |
| Washer: | EPDM sealing washer |  |  |


| Performance Data <br> Material Strength |  | Pull Out Strength Steel | ICC protocol 65 ksi | Pull Over Strength Steel |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 18 Ga | 613 lbf | 26 Ga | 687 lbf |
| Tensile | 3850 lbf | 16 Ga | 883 lbf | 24 Ga | 1043 lbf |
| Shear | 2600 lbf | 14 Ga | 1148 lbf | 22 Ga | 1298 lbf |
| Torsional | $150 \mathrm{lbf} \cdot \mathrm{in}$ | 12 Ga | 1861 lbf |  |  |

Installation and Application Considerations
Tools: $0-2000 \mathrm{rpm}$ screw gun equipped with depth sensing nose piece.
Use of impact guns or hammer drills is not recommended.

Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent guaranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all a pplicable laws and regulations.

Application
Metal panel to light and medium gauge metal application

## 1/4-14 Zinc Alloy Capped Head SD1 Lap/Stitch Panel to Panel Fastener



Features and Benefits

- Zinc alloy cap head that will never red rust
- Self-drill point for fast installation
- Assembled EPDM sealing washer for a consistent weather tite seal
- Long life fastener limited warranty

Product Selection

| Material No. | Fastener Length | Thread Length* | Description | CartonWt. (lbs.) | Carton Qty. |
| :--- | :--- | :--- | :--- | :---: | :---: |
| $797195 / 797809$ | $7 / 8^{\prime \prime}$ | Full | $1 / 4-14 \times 7 / 8^{\prime \prime}$ ZAC Dril-Quik SD1 W/W | 40 | 2,000 |

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.

Product Specifications
Diameter: $\quad 1 / 4^{\prime \prime}$
Threads Per Inch: 14
Head Style:
Washer:
$5 / 16^{\prime \prime}$ or $3 / 8^{\prime \prime}$ dia. cupped HWH AF
EPDM sealing washer

Application
Panel to panel side lap, end lap, and other stitch applications

| Performance Data |  |  |  |
| :---: | :---: | :---: | :---: |
| Material Strength |  | Pull Out Strength Steel |  |
| Tensile | 3600 lbf | 26 Ga | 204 lbf |
| Shear | 2700 lbf | 24 Ga | 304 lbf |
| Torsional | 150 lbf -in | $\underline{22 \mathrm{Ga}}$ | 379 lbf |

Installation and Application Considerations
Tools: 0-2000 rpm screw gun equipped with depth sensing nose piece.

Use of impact guns or hammer drills is not recommended.

Composite thickness should not exceed 0.095"

[^0]
# METAL FASTENING <br> sviom: inc Dril-Quik \#12-14 Zinc Alloy Capped Head SD3 Long Life Metal to Metal Fastener 

Features and Benefits

- Zinc alloy cap head that will never red rust
- Precision cold forged assuring superior strength and the fastest drilling time performance
- Designed to have low driving and thread engagement torque and provide maximum clamp load
- Special long pilot length to accommodate nested purlins
- Assembled EPDM sealing washer for a consistent weather tight seal
- Long life fastener limited warranty

| Product Selection <br> Material No. | Fastener Length | Thread Length* | Description |  | CartonWt. (lbs.) |
| :--- | :--- | :--- | :--- | :--- | :--- | Carton Qty.

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.

Product Specifications
Threads Per Inch: 14
Head Style: $\quad 5 / 16^{\prime \prime}$ or $3 / 8^{\prime \prime}$ dia. Cupped HWH AF
Washer:

Drill Point:
SD3
Drill Capacity: $\quad 0.035-0.210^{\prime \prime}$
Thread Major Dia: $0.212^{\prime \prime}$
Thread Minor Dia: $\quad 0.160^{\prime \prime}$

Performance Data
Material Strength

| Tensile | 2500 lbf |
| :--- | :--- |
| Shear | 1800 lbf |
| Torsional | $92 \mathrm{lbf} \cdot \mathrm{in}$ |

Installation and Application Considerations
Tools: 0-2000 rpm screw gun equipped with depth sensing nose piece.
Use of impact guns or hammer drills is not recommended.

| Pull Out Strength Steel |  | ICC protocol 65 ksi | Pull Over Strength Steel |  |
| :--- | :--- | :---: | :---: | :---: |
| 18 Ga | 575 lbf | 26 Ga | 654 lbf |  |
| 16 Ga | 717 lbf | 24 Ga | 1056 lbf |  |
| 14 Ga | 899 lbf | 22 Ga | 1249 lbf |  |
| 12 Ga | 1255 lbf |  |  |  |
| 10 Ga | 1610 lbf |  |  |  |

Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

Application
Metal panel to light and medium gauge metal application

# METAL FASTENING svom: inc Dril-Quik 1/4-14 Zinc Alloy Capped Head SD2 Long Life Metal to Metal Fastener 



Features and Benefits

- Zinc alloy cap head that will never rust
- Precision cold forged assuring superior strength and the fastest drilling time performance
- Designed to have low driving and thread engagement torque and provide maximum clamp load

- Special long pilot length to accommodate nested purlins
- Assembled EPDM sealing washer for a consistent weather tight seal
- Long life fastener limited warranty

| Product Selection <br> Material No. | Fastener Length | Thread Length | Description | Carton Wt. (lbs.) | Carton Qty. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $798814 / 798668$ | $1-1 / 4^{\prime \prime}$ | Full | $1 / 4-14 \times 1-1 / 4^{\prime \prime}$ ZAC Dril-Quik SD2 W/W | 46 | 2,000 |
| 799033 | $1-1 / 2^{\prime \prime}$ | Full | $1 / 4-14 \times 1-1 / 2^{\prime \prime}$ ZAC Dril-Quik SD2 W/W | 44 | 1,500 |

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.

Product Specifications
Diameter:
$1 / 4^{\prime \prime}$
Threads Per Inch: 14
Head Style: $\quad 5 / 16^{\prime \prime}$ or $3 / 8^{\prime \prime}$ dia. Cupped HWH AF
Washer: EPDM sealing washer

| Performance Data <br> Material Strength |  |
| :--- | :--- |
| Tensile | 3600 lbf |
| Shear | 2700 lbf |
| Torsional | $150 \mathrm{lbf} \cdot \mathrm{in}$ |

Application
Metal panel to light and medium gauge metal application

Installation and Application Considerations
Tools: 0-2000 rpm screw gun equipped with depth sensing nose piece.

Fastener length should provide for a minimum of $3 / 16^{\prime \prime}$ penetration of fully developed threads into metal substrate.

Use of impact guns or hammer drills is not recommended.

# NeTAL FASTENING <br> systems Inc <br> Dril-Quik \#12-24 Zinc Alloy Capped Head SD4.5\&5 Heavy Gauge Metal to Metal Fastener 



Features and Benefits

- Zinc alloy cap head that will never red rust
- Precision cold forged assuring superior strength and the fastest drilling time performance
- Designed to have low driving and thread engagement torque and provide maximum clamp load
- Special long pilot lengths to accommodate nested purlins
- Assembled EPDM sealing washer for a consistent weather tight seal
- Long life fastener limited warranty


Application
Metal panel and insulated metal panel to medium and heavy gauge metal application

Product Selection
Self-Drill 4.5

| Material No. | Fastener Length | Thread Length* | Description | CartonWt. (lbs.) | Carton Qty. |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| 795668 | $1-1 / 4^{\prime \prime}$ | $0.520^{\prime \prime}$ | $12-24 \times 1-1 / 4^{\prime \prime}$ ZAC Dril-Quik SD4.5 W/W | 49 | 2,000 |  |
|  |  |  |  |  |  |  |
| Self-Drill 5 | Fastener Length | Thread Length* | Description | CartonWt. (lbs.) | Carton Qty. |  |
| Material No. | N | $12-24 \times 1-1 / 4^{\prime \prime}$ ZAC Dril-Quik SD5 W/W | 40 | 1,500 |  |  |
| 795842 | $1-1 / 4^{\prime \prime}$ | $0.520^{\prime \prime}$ | $12-24 \times 1-1 / 2^{\prime \prime}$ ZAC Dril-Quik SD5 W/W | 42 | 1,500 |  |
| 796622 | $1-1 / 2^{\prime \prime}$ | $0.770^{\prime \prime}$ |  |  |  |  |

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.
Product Specifications

| Diameter: | $\# 12$ |
| :--- | :--- |
| Threads Per Inch: | 24 |
| Head Style: | $3 / 8^{\prime \prime}$ dia. Zinc allloy capped HWH |
|  | AF |
| Washer: | EPDM sealing washer |


| Drill Point: | SD4.5 or SD5 |
| :--- | :--- |
| Drill Capacity SD4.5: | $0.075^{\prime \prime}-0.375^{\prime \prime}$ |
| $\quad$ SD5: | $0.075-0.500^{\prime \prime}$ |
| Thread Major Dia: | $0.212^{\prime \prime}$ |
| Thread Minor Dia: | $0.184^{\prime \prime}$ |

Performance Data
Material Strength

| Tensile | 3450 lbf |
| :--- | :--- |
| Shear | 2420 lbf |
| Torsional | $100 \mathrm{lbf} \cdot \mathrm{in}$ |


| Pull Out Strength Steel |  | Pull Over Strength Steel |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | ICC protocol |  | 26 Ga | 794 lbf |
| 12 Ga | 1260 lbf |  | 24 Ga | 1310 lbf |
| $3 / 16^{\prime \prime}$ | 2989 lbf |  | 22 Ga | 1647 lbf |
| $1 / 4^{\prime \prime}$ | Exceeds tensile |  |  |  |

Installation and Application Considerations
Tools: 0-2000 rpm screw gun equipped with depth sensing
nose piece.
The details stated are results of tests and/or calculations and therefore are non-binding and do not represent guaranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

## Ansanatatuo Dril-Quik 1/4-14 Stainless Steel Capped HDSD1 Lap/Stitch Panel to Panel Fastener



Features and Benefits

- 300 series stainless steel capped head that will never red rust
- Self-drill point for fast installation
- Assembled EPDM sealing washer for a consistent weather tite seal
- Long life fastener limited warranty

Product Selection

| Material No. | Fastener Length | Thread Length* | Description | CartonWt. (lbs.) | Carton Qty. |
| :--- | :--- | :--- | :--- | :--- | :---: |
| 798360 | $7 / 8^{\prime \prime}$ | Full | $1 / 4-14 \times 7 / 8^{\prime \prime}$ S.S. CAP Dril-Quik SD1 W/W | 24 | 2,000 |

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.

| Product Specifications | Drill Point: | SD1 |  |
| :--- | :--- | :--- | :--- |
| Diameter: | $1 / 4^{\prime \prime}$ | Drill Capacity: | $0.030-0.095^{\prime \prime}$ |
| Threads Per Inch: | 14 | Thread Major Dia: | $0.246^{\prime \prime}$ |
| Head Style: | $5 / 16^{\prime \prime}$ or $3 / 8^{\prime \prime}$ dia. cupped HWH AF | Thread Minor Dia: | $0.188^{\prime \prime}$ |
| Washer: | EPDM sealing washer |  |  |

Performance Data

| Material Strength |  |
| :--- | :--- |
| Tensile | 3600 lbf |
| Shear | 2700 lbf |
| Torsional | $150 \mathrm{lbf} \cdot \mathrm{in}$ |


| Pull Out Strength Steel |
| :--- |
| 26 Ga |$|$| 204 lbf |  |
| :--- | :--- |
| 24 Ga | 304 lbf |
| 22 Ga | 379 lbf |

Installation and Application Considerations
Tools: 0-2000 rpm screw gun equipped with depth sensing
Composite thickness should not exceed $0.095^{\prime \prime}$ nose piece.

Application
Panel to panel side lap, end lap, and other stitch applications

# A Meatastence Dril-Quik \#12-14 Stainless Steel Capped HD SD3 Long Life Metal to Metal Fastener 



Features and Benefits

- 300 series stainless steel capped head that will never red rust
- Precision cold forged assuring superior strength and the fastest drilling time performance
- Designed to have low driving and thread engagement torque and provide maximum clamp load
- Special long pilot length to accommodate nested purlins
- Assembled EPDM sealing washer for a consistent weather tight seal
- Long life fastener limited warranty

| Product Selection <br> Material No. | Fastener Length | Thread Length* | Description | CartonWt. (lbs.) | Carton Qty. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 793796 | $1^{\prime \prime}$ | Full | $12-14 \times 1^{\prime \prime}$ S.S. CAP Dril-Quik SD3 W/W | 25 | 2,000 |
| 795388 | $1-1 / 4^{\prime \prime}$ | Full | $12-14 \times 1-1 / 4^{\prime \prime}$ S.S. CAP Dril-Quik SD3 W/W | 29 | 2,000 |
| 796239 | $1-1 / 2^{\prime \prime}$ | Full | $12-14 \times 1-1 / 2^{\prime \prime}$ S.S. CAP Dril-Quik SD3 W/W | 24 | 1,500 |

Plain product bagged 250 pieces, unless otherwise noted.
*Note - Thread length measured from end of pilot length to end of the threads.

| Product Specifications | Drill Point: | SD3 |  |
| :--- | :--- | :--- | :--- |
| Diameter: | $\# 12$ | Drill Capacity: | $0.035-0.210^{\prime \prime}$ |
| Threads Per Inch: | 14 | Thread Major Dia: | $0.212^{\prime \prime}$ |
| Head Style: | $5 / 16^{\prime \prime}$ dia. Cupped HWH AF | Thread Minor Dia: | $0.160^{\prime \prime}$ |
| Washer: | EPDM sealing washer |  |  |


| Performance Data |
| :--- |
| Material Strength |
| Tensile |

Installation and Application Considerations

| Pull Out Strength Steel |  | ICC protocol 65 ksi | Pull Over Strength Steel |  |
| :--- | :---: | :---: | :---: | :---: |
| 18 Ga | 575 lbf | 26 Ga | 692 lbf |  |
| 16 Ga | 717 lbf | 24 Ga | 1102 lbf |  |
| 14 Ga | 899 lbf | 22 Ga | 1298 lbf |  |
| 12 Ga | 1255 lbf |  |  |  |
| 10 Ga | 1610 lbf |  |  |  |

Tools: $0-2000 \mathrm{rpm}$ screw gun equipped with depth sensing nose piece.
Use of impact guns or hammer drills is not recommended.


Application
Metal panel to light and medium gauge metal application

Inches to Decimal

| Inches | Decimal | Inches | Decimal | Inches | Decimal | Inches | Decimal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 / 32$ | .0312 | $9 / 32$ | .2812 | $17 / 32$ | .5312 | $25 / 32$ | .7812 |
| $1 / 16$ | .0625 | $5 / 16$ | .312 | $9 / 16$ | .5625 | $13 / 16$ | .8125 |
| $3 / 32$ | .0937 | $11 / 32$ | .3437 | $19 / 32$ | .5937 | $27 / 32$ | .8437 |
| $1 / 8$ | .125 | $3 / 8$ | .375 | $5 / 8$ | .625 | $7 / 8$ | .875 |
| $5 / 32$ | .1562 | $13 / 32$ | .4062 | $21 / 32$ | .6562 | $29 / 32$ | .9062 |
| $3 / 16$ | .1875 | $7 / 16$ | .4375 | $11 / 16$ | .687 | $15 / 16$ | .9375 |
| $7 / 32$ | .2187 | $15 / 32$ | .4687 | $23 / 32$ | .7187 | $31 / 32$ | .9687 |
| $1 / 4$ | .250 | $1 / 2$ | .500 | $3 / 4$ | .750 | 1 | 1.00 |

## Gauges to Decimal

| Gauge | Decimal | Gauge | Decimal | Gauge | Decimal | Gauge | Decimal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | .239 | 12 | .105 | 21 | .033 | 30 | .0120 |
| 4 | .224 | 13 | .090 | 22 | .030 | 31 | .0105 |
| 5 | .209 | 14 | .075 | 23 | .027 | 32 | .0097 |
| 6 | .194 | 15 | .067 | 24 | .024 | 33 | .0090 |
| 7 | .179 | 16 | .060 | 25 | .021 | 34 | .0082 |
| 8 | .164 | 17 | .054 | 26 | .018 | 35 | .0075 |
| 9 | .150 | 18 | .048 | 27 | .016 | 36 | .0067 |
| 10 | .135 | 19 | .042 | 28 | .015 | 37 | .0064 |
| 11 | .120 | 20 | .036 | 29 | .014 | 38 | .0060 |

## Drill Capacity Guideline

| Point | Diameter | . 050 | . 100 | . 150 | . 200 | . 250 | . 300 | . 350 | . 400 | . 500 | . 600 | Drill Speed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1/4 | . 018 --. 090 |  |  |  |  |  |  |  |  |  | 2000 |
| 2 | 6 | . $035-090$ |  |  |  |  |  |  |  |  |  | 2500 |
| 2 | 8 | . 035 ---. 100 |  |  |  |  |  |  |  |  |  | 2500 |
| 2 | 10 | . 035 ----- 110 |  |  |  |  |  |  |  |  |  | 2500 |
| 3 | 10 | . 035 ------------ 176 |  |  |  |  |  |  |  |  |  | 2500 |
| 3 | 12 | $\text { . } 035 \text {-------------------- . } 210$ |  |  |  |  |  |  |  |  |  | 2000 |
| 3 | 1/4 | $\text { . } 060 \text {---------------------- } 220$ |  |  |  |  |  |  |  |  |  | 1750 |
| 4 | 12 | . 125 ------------- 250 |  |  |  |  |  |  |  |  |  | 1500 |
| 5 | 12 or 1/4 | $\text { . } 125 \text {-------------------------------------------------- . } 500$ |  |  |  |  |  |  |  |  |  | 1500 |

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## Dril-Quik

## Coating Comparison

| Coating | Salt Spray | Application |
| :--- | :--- | :--- |
| Clear Zinc | 24 hrs. | Used indoors for dry, non-corrosive applications |
| *Ruspert | $1,000 \mathrm{hrs}$. | Used indoors and outdoors for high corrosive applications |
| E-Coat | 500 hrs. | Used outdoors for medium corrosive applications |
| *410 Stainless Steel | 500 hrs. | Used outdoors for medium corrosive applications |
| *304 Stainless Steel | $2,000+\mathrm{hrs}$. | Used outdoors for high corrosive applications |
| *316 Stainless Steel | $2,000+\mathrm{hrs}$. | Used outdoors for severely corrosive applications |

## *ACQ Compatible

## Coating Description

Clear Zinc: A coating that is applied electrically to fasteners that prevents oxidation of steel by forming a protective barrier.

Ruspert: A high-grade metal surface processing technology that prevents corrosion. The coating system consists of three layers: a metallic zinc layer, a high-grade anti-corrosion chemical conversion film, and a baked ceramic surface coating.

E-Coat: A electrical current to deposit the coating material and oven cured.

410 Stainless Steel: A low-carbon grade of hardenable stainless steel. Good corrosion in mild atmospheres.

304 Stainless Steel: A nickel-chromium austenitic grade of stainless steel that has a high resistance to corrosion.

316 Stainless Steel: A nickel-chromium austenitic grade of stainless steel that provides a level of corrosion protection suitable for severe environments.
*(Tested in accordance with the American Society of Testing Materials - ASTM B 117)

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[^0]:    The details stated are results of tests and/or calculations and therefore are non-binding and do not represent guaranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

