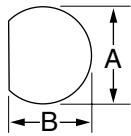


"D" Punches

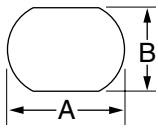


| HOLE SIZE | | | | MAXIMUM CAPACITY MILD STEEL | | OPERATION TYPE | PUNCH UNIT (INCLUDES PUNCH, DIE AND DRAW STUD) | CAT./UPC NO. | | | | | MINIMUM PILOT HOLE Ø | | WEIGHT | | OPTIONAL ADAPTER FOR HYDRAULIC DRIVERS |
|-----------|-------|--------|------|-----------------------------|-----|----------------|--|--------------|-------|-----------|--------------|-------------|----------------------|------|--------|-----|--|
| | | | | | | | | PUNCH | DIE | DRAW STUD | BB DRIVE NUT | COUNTER NUT | | | | | |
| INCH | | mm | | GA | mm | | | | | | | INCH | mm | LBS. | kg. | | |
| 0.500 Ø | 0.469 | 12.7 Ø | 11.9 | 16 | 2.0 | Hand/Hydr. | 60077 | 60078 | 60079 | 60115 | 60120 | 05244 | .375 | 9.5 | .9 | .41 | 60114◇ |
| 0.625 Ø | 0.594 | 15.9 Ø | 15.1 | 14 | 2.0 | Hand/Hydr. | 60080 | 60081 | 60082 | 60113 | 34733 | 04638 | .500 | 12.7 | 1.1 | .50 | 33967◇ |
| 0.750 Ø | 0.703 | 19.1 Ø | 17.9 | 14 | 2.0 | Hand/Hydr. | 60083 | 60084 | 60085 | 60113 | 34733 | 04638 | .500 | 12.7 | 1.2 | .50 | 33967◇ |

◇ For use with any Greenlee Hydraulic Driver or Battery-Powered Driver

For maximum draw stud life, Greenlee recommends the use of battery or hydraulic drivers

Double "D" Punches

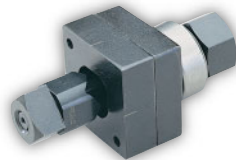
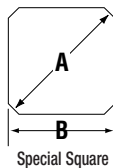
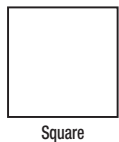


| HOLE SIZE | | | | MAXIMUM CAPACITY MILD STEEL | | OPERATION TYPE | PUNCH UNIT (INCLUDES PUNCH, DIE AND DRAW STUD) | CAT./UPC NO. | | | | | MINIMUM PILOT HOLE Ø | | WEIGHT | | OPTIONAL ADAPTER FOR HYDRAULIC DRIVERS |
|-----------|-------|--------|------|-----------------------------|-----|----------------|--|--------------|-------|-----------|--------------|-------------|----------------------|------|--------|-----|--|
| | | | | | | | | PUNCH | DIE | DRAW STUD | BB DRIVE NUT | COUNTER NUT | | | | | |
| INCH | | mm | | GA | mm | | | | | | | INCH | mm | LBS. | kg. | | |
| 0.769 Ø | 0.642 | 19.5 Ø | 16.3 | 14 | 2.0 | Hand/Hydr. | 60086 | 60087 | 60088 | 60113 | 34733 | 04638 | .500 | 12.7 | 1.1 | .50 | 33967◇ |
| 0.795 Ø | 0.697 | 20.2 Ø | 17.6 | 14 | 2.0 | Hand/Hydr. | 60089 | 60090 | 60091 | 60113 | 34733 | 04638 | .500 | 12.7 | 1.1 | .50 | 33967◇ |
| 0.913 Ø | 0.756 | 23.2 Ø | 19.2 | 14 | 2.0 | Hand/Hydr. | 60092 | 60093 | 60094 | 60113 | 34733 | 04638 | .500 | 12.7 | 1.2 | .54 | 33967◇ |
| 0.913 Ø | 0.795 | 23.2 Ø | 20.2 | 14 | 2.0 | Hand/Hydr. | 60095 | 60096 | 60097 | 60113 | 34733 | 04638 | .500 | 12.7 | 2 | .9 | 33967◇ |
| 1.375 Ø | 1.125 | 34.9 Ø | 28.6 | 14 | 2.0 | Hand/Hydr. | 60098 | 60099 | 60100 | 60166 | 60165 | 60258 | .875 | 23.8 | 2.5 | 1.1 | 60167◇ |

◇ For use with any Greenlee Hydraulic Driver or Battery-Powered Driver

For maximum draw stud life, Greenlee recommends the use of battery or hydraulic drivers

Square and Special Square Punches



| HOLE SIZE | | MAXIMUM CAPACITY MILD STEEL | | OPERATION TYPE | PUNCH UNIT (INCLUDES PUNCH, DIE AND DRAW STUD) | CAT./UPC NO. | | | | | MINIMUM PILOT HOLE Ø | | WEIGHT | | OPTIONAL ADAPTER FOR HYDRAULIC DRIVERS | |
|-----------|---------------|-----------------------------|----|----------------|--|--------------|-------|-----------|--------------|-------------|----------------------|-------|--------|------|--|--------|
| | | | | | | PUNCH | DIE | DRAW STUD | BB DRIVE NUT | COUNTER NUT | | | | | | |
| INCH | mm | GA | mm | | | | | | | | INCH | mm | LBS. | kg. | | |
| 1/2" | 0.500 x 0.500 | 12.7 x 12.7 | 16 | 1.5 | ◇Hand/Hydr. | 60001 | 60002 | 60003 | 60115 | 60120 | 05244 | .375 | 9.5 | 1.1 | .50 | 60114◇ |
| 5/8" | 0.625 x 0.625 | 15.9 x 15.9 | 14 | 2.0 | ◇Hand/Hydr. | 60004 | 60005 | 60006 | 60116 | 34733 | 04638 | .500 | 12.7 | 1.5 | .68 | 33967◇ |
| 3/4" | 0.750 x 0.750 | 19.1 x 19.1 | 14 | 2.0 | ◇Hand/Hydr. | 60007 | 60008 | 60009 | 60116 | 34733 | 04638 | .500 | 12.7 | 1.5 | .68 | 33967◇ |
| 7/8" | 0.882 x 0.882 | 22.4 x 22.4 | 14 | 2.0 | ◇Hand/Hydr. | 60259 | 60011 | 60012 | 60116 | 34733 | 04638 | .500 | 12.7 | 1.8 | .82 | 33967◇ |
| | 0.945 x 0.945 | 24.0 x 24.0 | 14 | 2.0 | ◇Hand/Hydr. | 60013 | 60014 | 60015 | 60116 | 34733 | 04638 | .500 | 12.7 | 2.3 | 1.0 | 33967◇ |
| 1" | 1.000 x 1.000 | 25.4 x 25.4 | 14 | 2.0 | ◇Hand/Hydr. | 60016 | 60017 | 60018 | 60117 | 60165 | 60258 | .625 | 15.9 | 2.4 | 1.1 | 60167◇ |
| | 1.772 x 1.772 | 45.0 x 45.0 | 10 | 3.5 | ◇Hydr. Only | 60287 | 60288 | 60289 | 60118 | — | 60235 | 1.188 | 30.2 | 6.0 | 2.7 | ◇ |
| 1-13/16" | 1.811 x 1.811 | 46.0 x 46.0 | 10 | 3.5 | ◇Hydr. Only | 60019 | 60020 | 60021 | 60118 | — | 60235 | 1.188 | 30.2 | 6.2 | 2.8 | ◇ |
| 2" | 2.000 x 2.000 | 50.8 x 50.8 | 10 | 3.5 | ◇Hydr. Only | 60168 | 60169 | 60170 | 60118 | — | 60235 | 1.188 | 30.2 | 6.9 | 3.1 | ◇ |
| 2-11/16" | 2.677 x 2.677 | 68.0 x 68.0 | 10 | 3.5 | ◇Hydr. Only | 60171 | 60172 | 60173 | 60118 | — | 60235 | 1.188 | 30.2 | 10.1 | 4.6 | ◇ |
| 3-5/8" | 3.622 x 3.622 | 92.0 x 92.0 | 10 | 3.5 | *Hydr. Only | 60174 | 60175 | 60176 | 60118 | — | 60235 | 1.188 | 30.2 | 14.8 | 6.7 | * |
| 4-1/8" | 4.125 x 4.125 | 104.8 x 104.8 | 10 | 3.5 | *Hydr. Only | 60177 | 60178 | 60179 | 60118 | — | 60235 | 1.188 | 30.2 | 18.8 | 8.5 | * |
| | 5.433 x 5.433 | 138.0 x 138.0 | 14 | 2.0 | *Hydr. Only | 60234 | 60023 | 60024 | 60118 | — | 60235 | 1.188 | 30.2 | 20 | 9.1 | * |

SPECIAL SQUARE

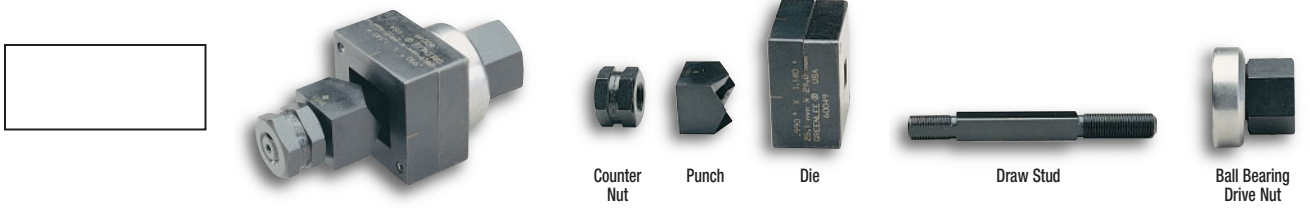
| | | | | | | | | | | | | | | | | | |
|----------|----------|-----------|---------|----|-----|------------|-------|-------|-------|-------|-------|-------|------|------|----|----|-------|
| 0.886(A) | 0.791(B) | 22.5 Ø(A) | 20.1(B) | 14 | 2.0 | Hand/Hydr. | 60125 | 60126 | 60127 | 60116 | 34733 | 04638 | .500 | 12.7 | .7 | .3 | 33967 |
|----------|----------|-----------|---------|----|-----|------------|-------|-------|-------|-------|-------|-------|------|------|----|----|-------|

*For use with Hand and Foot Pump Hydraulic Drivers with Ram

For maximum draw stud life, Greenlee recommends the use of battery or hydraulic drivers

◇ For use with any Greenlee Hydraulic Driver, or Battery-Powered Driver

Rectangular Punches

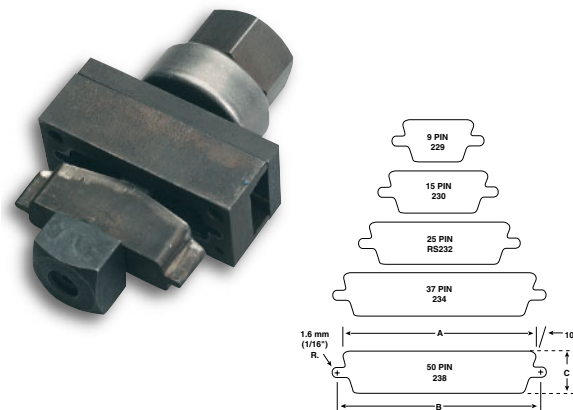


| HOLE SIZE | | MAXIMUM CAPACITY MILD STEEL | | OPERATION TYPE | CAT./UPC NO. | | | | | MINIMUM PILOT HOLE Ø | | WEIGHT | | OPTIONAL ADAPTER FOR HYDRAULIC DRIVERS | |
|---------------|--------------|-----------------------------|-----|----------------|--|-------|-------|-----------|--------------|----------------------|-------|--------|------|--|-------|
| | | | | | PUNCH UNIT (INCLUDES PUNCH, DIE AND DRAW STUD) | PUNCH | DIE | DRAW STUD | BB DRIVE NUT | COUNTER NUT | INCH | mm | LBS. | | kg |
| INCH | mm | GA | mm | | | | | | | | | | | | |
| 0.437 x 0.875 | 11.1 x 22.2 | 16 | 1.5 | Hand/Hydr. | 60025 | 60026 | 60027 | 60115 | 60120 | 05244 | .375 | 9.5 | 1.2 | .58 | 60114 |
| 0.670 x 0.749 | 17.0 x 19.0 | 14 | 2.0 | Hand/Hydr. | 60028 | 60029 | 60030 | 60116 | 34733 | 04638 | .500 | 12.7 | 1.5 | .68 | 33967 |
| 0.750 x 1.140 | 19.1 x 29.0 | 14 | 2.0 | Hand/Hydr. | 60031 | 60032 | 60033 | 60117 | 60165 | 60258 | .625 | 15.9 | 2.3 | 1.0 | 60167 |
| 0.750 x 1.310 | 19.1 x 33.3 | 14 | 2.0 | Hand/Hydr. | 60034 | 60035 | 60036 | 60117 | 60165 | 60258 | .625 | 15.9 | 2.3 | 1.0 | 60167 |
| 0.861 x 1.018 | 21.9 x 25.9 | 14 | 2.0 | Hand/Hydr. | 60037 | 60038 | 60039 | 60117 | 60165 | 60258 | .625 | 15.9 | 2.3 | 1.0 | 60167 |
| 0.866 x 1.181 | 22.0 x 30.0 | 14 | 2.0 | Hand/Hydr. | 60040 | 60041 | 60042 | 60117 | 60165 | 60258 | .625 | 15.9 | 2.4 | 1.1 | 60167 |
| 0.866 x 1.654 | 22.0 x 42.0 | 14 | 2.0 | Hand/Hydr. | 60043 | 60045 | 60046 | 60117 | 60165 | 60258 | .625 | 15.9 | 2.9 | 1.3 | 60167 |
| 0.990 x 1.140 | 25.1 x 29.0 | 14 | 2.0 | Hand/Hydr. | 60047 | 60048 | 60049 | 60117 | 60165 | 60258 | .625 | 15.9 | 2.6 | 1.2 | 60167 |
| 1.250 x 1.380 | 31.8 x 35.1 | 14 | 2.0 | Hand/Hydr. | 60050 | 60051 | 60052 | 60117 | 60165 | 60258 | .625 | 15.9 | 3.1 | 1.4 | 60167 |
| 1.312 x 2.625 | 33.3 x 66.7 | 10 | 3.5 | Hydr. Only | 60053 | 60054 | 60055 | 60118 | — | 60235 | 1.188 | 30.2 | 5.1 | 2.3 | ◇ |
| 1.378 x 2.047 | 35.0 x 52.0 | 10 | 3.5 | Hydr. Only | 60056 | 60057 | 60058 | 60118 | — | 60235 | 1.188 | 30.2 | 6.1 | 2.8 | ◇ |
| 1.378 x 2.559 | 35.0 x 65.0 | 10 | 3.5 | Hydr. Only | 60059 | 60060 | 60061 | 60118 | — | 60235 | 1.188 | 30.2 | 6.8 | 3.1 | ◇ |
| 1.378 x 3.228 | 35.0 x 82.0 | 14 | 2.0 | *Hydr. Only | 60062 | 60063 | 60064 | 60118 | — | 60235 | 1.188 | 30.2 | 7.7 | 3.5 | * |
| 1.378 x 4.409 | 35.0 x 112.0 | 14 | 2.0 | *Hydr. Only | 60065 | 60066 | 60067 | 60118 | — | 60235 | 1.188 | 30.2 | 9.2 | 4.2 | * |
| 1.811 x 3.622 | 46.0 x 92.0 | 10 | 3.5 | *Hydr. Only | 60068 | 60069 | 60070 | 60118 | — | 60235 | 1.188 | 30.2 | 8.9 | 4.0 | * |
| 2.250 x 3.500 | 57.2 x 88.9 | 10 | 3.5 | *Hydr. Only | 60071 | 60072 | 60073 | 60118 | — | 60235 | 1.188 | 30.2 | 10.1 | 4.6 | * |
| 2.677 x 5.433 | 68.0 x 138.0 | 14 | 2.0 | *Hydr. Only | 60074 | 60075 | 60076 | 60118 | — | 60235 | 1.188 | 30.2 | 16.1 | 7.3 | * |

*For use with with Hand and Foot Pump Hydraulic Drivers with Ram
◇ For use with any Greenlee Hydraulic Driver or Battery-Powered Driver

For maximum draw stud life, Greenlee recommends the use of battery or hydraulic drivers

Electronic Connector Panel Punches



- Cut-out and mounting slots are punched in one operation.
- Drill only one 7/16" (11.1 mm) pilot hole.
(See catalog page 63 for Kwik Stepper® step bits.)
- Fast, accurate panel punching with no sawing or filing required.
- Universal size punches for front or back mount of TRW Cinch and ITT Cannon-type or equivalent connectors in 9, 15, 25, 37 or 50-pin configurations.
- U.S. Patent No. 4,899,447.

SPECIFICATIONS

Operation Manual with a wrench; Quick Draw® and Quick Draw 90° hydraulic drivers, Battery Driver, Ram and Pump hydraulic drivers.

Capacity 16 gauge (1.5 mm) mild steel; 10 gauge (3.5 mm) aluminum.

| PUNCH UNIT | | NO. OF PINS | DIMENSIONS | | | REPLACEMENT CAT./UPC NO. | | | | | WEIGHT | |
|------------|---------|-------------|---------------------|---------------------|--------------------|--------------------------|----------|-----------|--------------------|-----------|--------|-----|
| CAT. NO. | UPC NO. | | A | B | C | PUNCH | DIE UNIT | DRAW STUD | SQUARE COUNTER NUT | DRIVE NUT | LBS. | kg. |
| 229 | 34436 | 9 | .787" (20.0 mm) | .982" (24.9 mm) | .469" (11.9 mm) | 34441 | 35196 | 34421 | 04638 | 34733 | 1.4 | .64 |
| 231 | 34437 | 15 | 1.127" (28.6 mm) | 1.309" (33.3 mm) | .469" (11.9 mm) | 34442 | 35197 | 34421 | 04638 | 34733 | 1.5 | .68 |
| RS232 | 34420 | 25 | 1.655" (42.0 mm) | 1.853" (47.1 mm) | .469" (11.9 mm) | 34418 | 35198 | 34421 | 04638 | 34733 | 2.0 | .91 |
| 234 | 34429 | 37 | 2.296" (58.3 mm) | 2.497" (63.4 mm) | .469" (11.9 mm) | 34427 | 35199 | 34421 | 04638 | 34733 | 2.0 | .91 |
| 238 | 34444 | 50 | 2.201" (55.9 mm) | 2.402" (61.0 mm) | .579" (14.7 mm) | 34443 | 35200 | 34421 | 04638 | 34733 | 2.0 | .91 |

For maximum draw stud life, Greenlee recommends the use of battery or hydraulic drivers