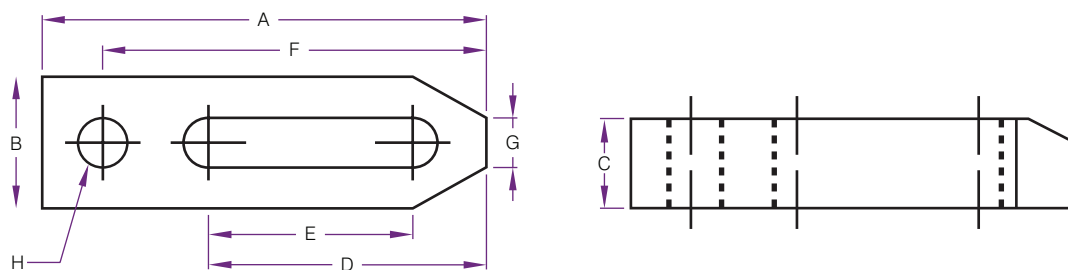
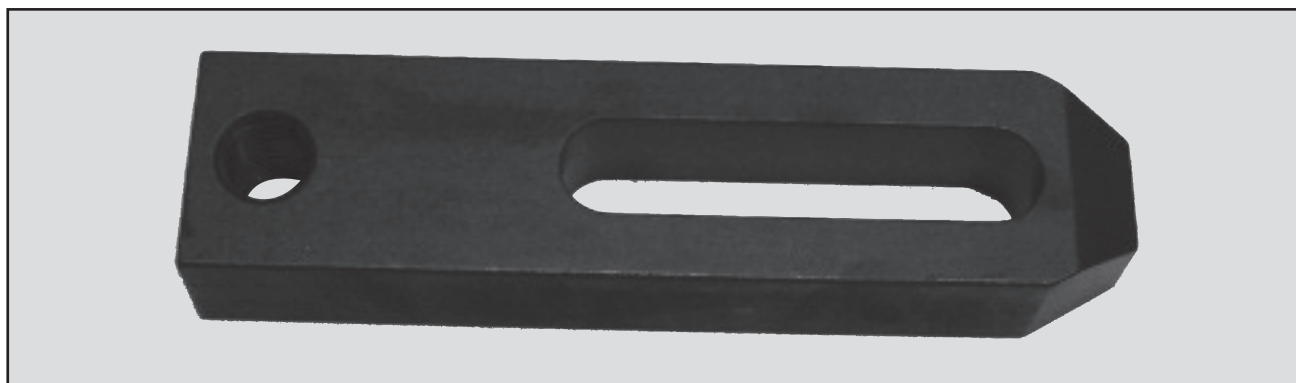


Slotted Clamps



| Part Number | Model | A | B | C | D | E | F | G | H |
|-------------|------------|-----|----|----|-----|-----|-----|----|-------|
| MC12 | 12 x 100mm | 100 | 32 | 19 | 71 | 43 | 88 | 13 | M12 |
| MC16 | 16 x 150mm | 150 | 37 | 25 | 100 | 60 | 130 | 17 | M16 |
| MC20 | 20 x 200mm | 200 | 50 | 32 | 114 | 82 | 185 | 21 | M20 |
| MC25 | 25 x 250mm | 250 | 70 | 45 | 157 | 100 | 224 | 27 | 1"BSW |

Boat Clamps



| Part Number | Attachment Bolt Size | Overall Length |
|-------------|----------------------|----------------|
| BC12 | 12mm | 100mm |
| BC16 | 16mm | 125mm |
| BC20 | 20mm | 160mm |
| BC24 | 24mm | 200mm |

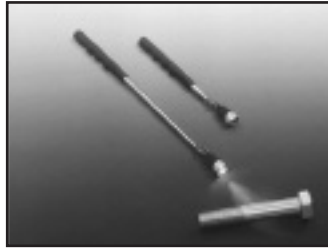
Magnetic Pick-up Tool



Super Strength High Tech Magnetic Pick-Up Tool with *POWERCAP*

The *POWERCAP* shields the sides of the magnet from attaching to unwanted surfaces, and increases lifting capacity by over 45%

Stainless steel telescoping handle is strong, long & lightweight
Comfortable textured cushion grip keeps handle secure even in oily hands



HT-1

Lifts 900g with *POWERCAP*
165mm extends to 845mm

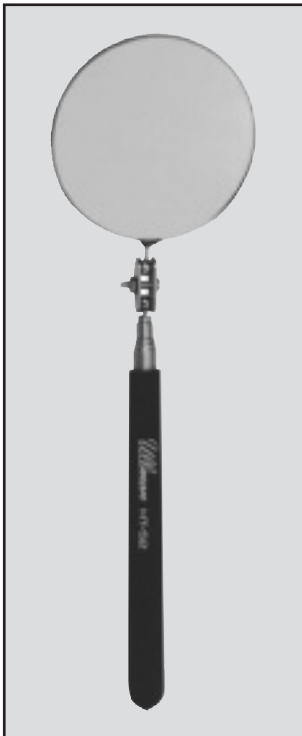
HT-2

Lifts 2.2Kg with *POWERCAP*
165mm extends to 845mm

HT-3

Lifts 4.5Kg with *POWERCAP*
171mm extends to 769mm

Inspection Mirrors



High Tech Inspection Mirrors - *Longer, Stronger & Lightweight*

Stainless steel telescoping handle is strong, long and lightweight
Comfortable textured cushion grip keeps handle secure even in oily hands
Mirror encased in rugged corrosion resistant brushed stainless steel
All-angle ball joint holds mirror firmly for 360° viewing

HTE-2

32mm mirror diameter
165mm extends to 890mm

HTC-2

57mm mirror diameter
165mm extends to 924mm

HTS-2

83mm mirror diameter
165mm extends to 750mm

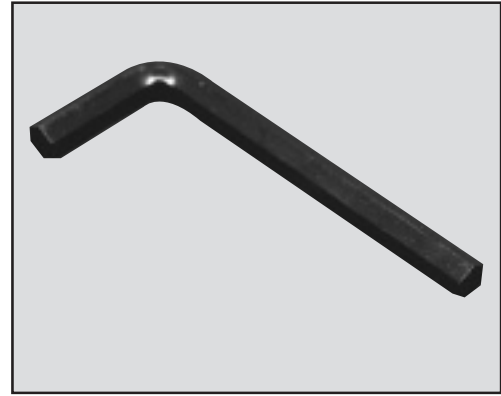
HTS-2L

83mm mirror diameter
300mm extends to 1,334mm



Hexagon Wrench (Allen Keys)

| A/F MM Short Arm | Metric | | Imperial | |
|---------------------|---------------------|-----|-----------|----------|
| | A/F MM Short Arm | | Short Arm | Long arm |
| 1.5 | | 1.5 | 1/16 | 1/16 |
| 2 | | 2 | 5/64 | 5/64 |
| 2.5 | | 2.5 | 3/32 | 3/32 |
| 3 | | 3 | 7/64 | 7/64 |
| 4 | | 4 | 1/8 | 1/8 |
| 5 | | 5 | 9/64 | 9/64 |
| 6 | | 6 | 5/32 | 5/32 |
| 8 | | 8 | 3/16 | 3/16 |
| 10 | | 10 | 7/32 | 7/32 |
| 12 | | 12 | 1/4 | 1/4 |
| 14 | | 14 | 5/16 | 5/16 |
| 17 | | 17 | 3/8 | 3/8 |
| 19 | | 19 | 7/16 | 7/16 |
| 22 | | | 1/2 | 1/2 |
| 24 | | | 9/16 | 9/16 |
| 27 | | | 5/8 | 5/8 |
| 32 | | | 3/4 | 3/4 |
| | | | 7/8 | 7/8 |
| | | | 1 | 1 |



Allen Key Sets

| Part Number | Description |
|-------------|---|
| UMFKM | Metric long arm 9pc (plastic moulded case) |
| UMSM | Metric short arm 10 pc (Plastic Wallet) |
| UMFKI | Imperial long arm 13pc (Plastic moulded case) |
| UMSI | Imperial short arm 10pc (plastic wallet) |
| UMFBI | Imperial Ballnose Long Series 13 pc |
| UMFBM | Metric Ballnose Long Series 9 pc |



* Note straight & ballnose available

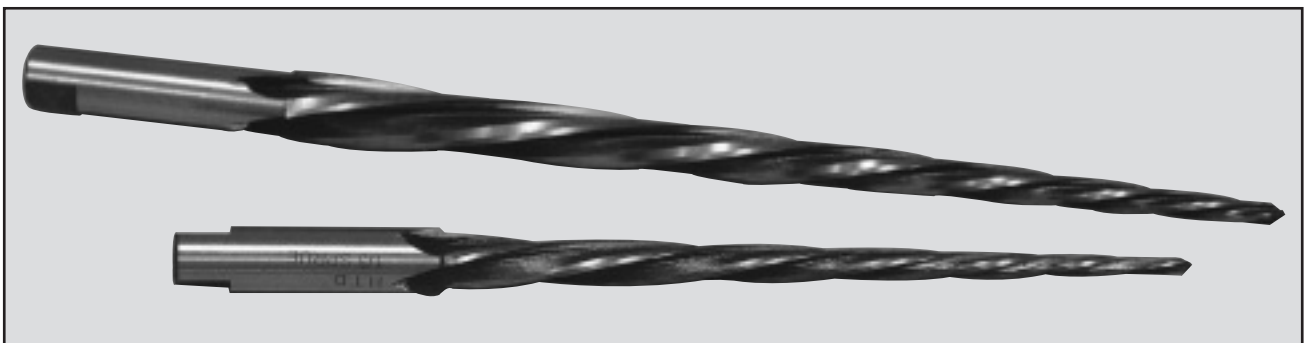
Sprue Radius Cutters



Part Number SRC48

The HSS tipped radius cutter ensures a smooth, precise fit between your machine nozzle and the sprue. 3/4 Radius.

Sprue Reamers



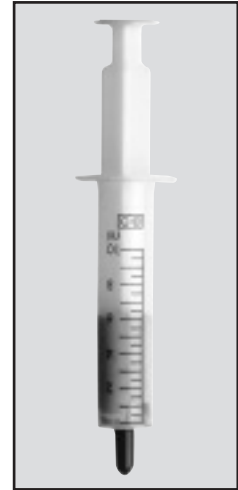
The new range of Sprue Reamers suitable for both machine and hand use are made from High Speed Steel and are of 6 flute left hand slow spiral design with a 1/2" diameter parallel shank.

| Part Number | Code Number | Taper Degrees | Flute | | | Overall Length |
|-------------|-------------|---------------|------------|------------|--------|----------------|
| | | | Small Dia. | Large Dia. | Length | |
| CRS1202 | 1/2 | 2 | .120" | .300" | 5" | 7" |
| CRS1203 | 1/3 | 3 | .120" | .390" | 5" | 7" |
| CRS1204 | 1/4 | 4 | .120" | .470" | 5" | 7" |
| CRS1205 | 1/5 | 5 | .120" | .560" | 5" | 7" |
| CRS1802 | 2/2 | 2 | .180" | .430" | 7" | 9" |
| CRS1803 | 2/3 | 3 | .180" | .550" | 7" | 9" |
| CRS1804 | 2/4 | 4 | .180" | .670" | 7" | 9" |

Diamond Paste

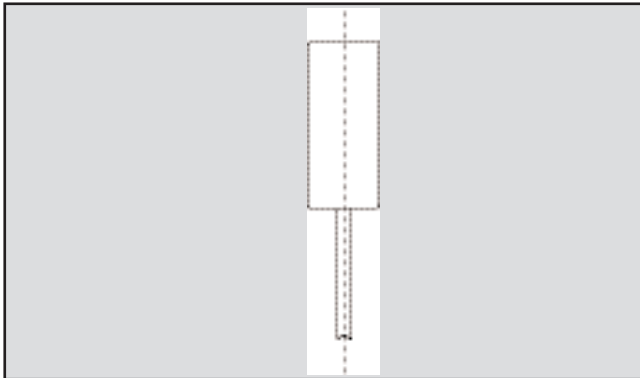
Hales Diamond Compound contains the finest grades of diamond particles. The result is the best concentration.

| PART NO. | MICRON SIZE | MESH CONCENTRATION | COLOUR | RECOMMENDATIONS |
|----------|-------------|--------------------|-------------|--------------------------------------|
| DP01 | 1 | 14,000 | LIGHT BLUE | For the finest finish on all tooling |
| DP03 | 3 | 8,000 | GREEN | |
| DP06 | 6 | 3,000 | YELLOW | Commercial finish for most tooling |
| DP09 | 9 | 18,000 | RED | |
| DP15 | 15 | 12,000 | LIGHT BROWN | |
| DP30 | 30 | 750 | DARK BROWN | First stage on all materials |
| DP45 | 45 | 325 | PURPLE | |
| DP60 | 60 | 250 | ORANGE | Stock removed |

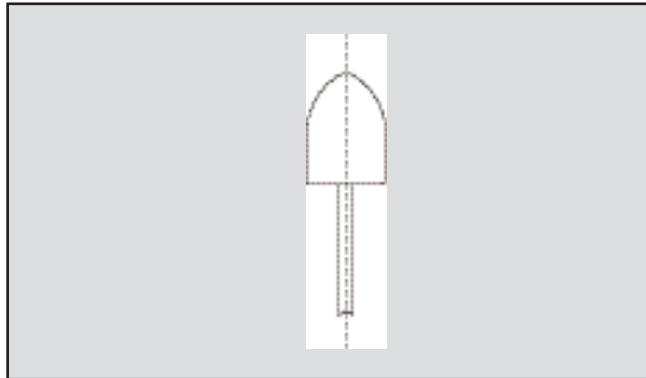


Felt Bobs & Cones

BOB (FB)



CONE (FC)



MEDIUM GRADE FELT

| PART NO. | SIZE DIA. | SIZE LENGTH | SHANK |
|----------|-----------|-------------|-------|
| FB1414 | 1/4 | 1/4 | 1/8 |
| FB14516 | 1/4 | 5/16 | 1/8 |
| FB1212 | 1/2 | 1/2 | 1/8 |
| FB121 | 1/2 | 1 | 1/8 |
| FB3434 | 3/4 | 3/4 | 1/8 |
| FB11 | 1 | 1 | 1/4 |

MEDIUM GRADE FELT

| PART NO. | SIZE DIA. | SIZE LENGTH | SHANK |
|----------|-----------|-------------|-------|
| FC14 | 1/4 | 5/8 | 1/8 |
| FC24 | 3/8 | 7/8 | 1/8 |
| FC12 | 1/2 | 1 | 1/8 |
| FC58 | 5/8 | 1 1/4 | 1/8 |

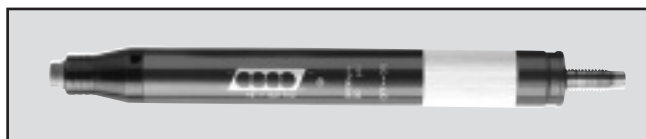
Wet & Dry Sheets

PREMIUM GRADE WET AND DRY

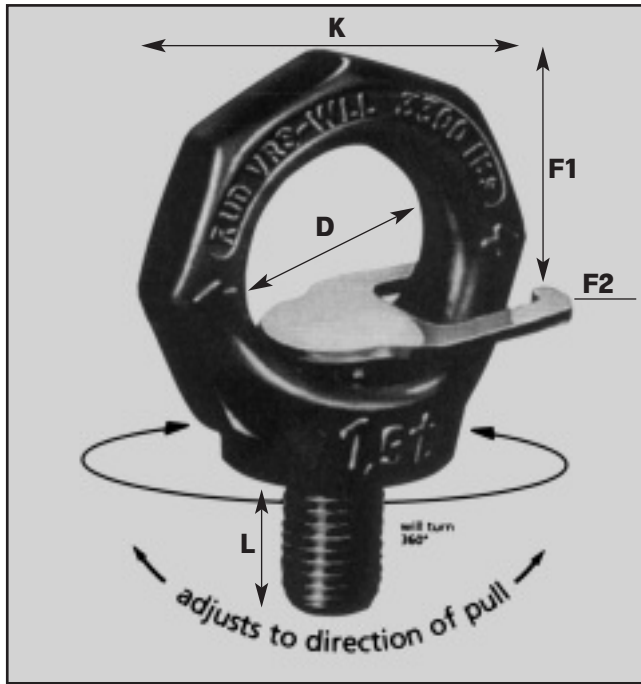
| | | | |
|--------|------|--------|-------|
| WD0080 | 80# | WD0320 | 320# |
| WD0100 | 100# | WD0400 | 400# |
| WD0120 | 120# | WD0500 | 500# |
| WD0150 | 150# | WD0600 | 600# |
| WD0180 | 180# | WD0800 | 800# |
| WD0220 | 220# | WD1000 | 1000# |
| WD0240 | 240# | WD1200 | 1200# |
| WD0280 | 280# | | |

LDG5202

54,000 RPM Economy Air Grinder.



Starpoint Eye Bolt



VRS-F Starpoint
Eyebolt with Metric coarse thread, 360° Rotation

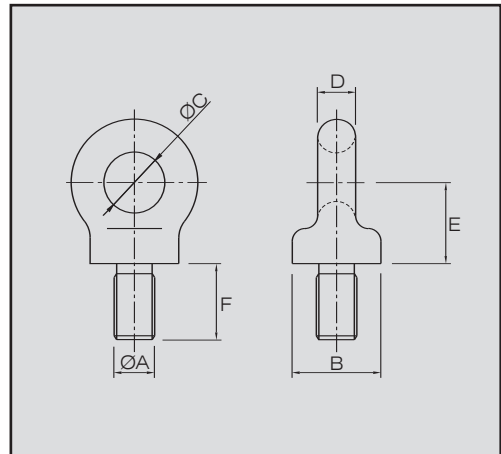
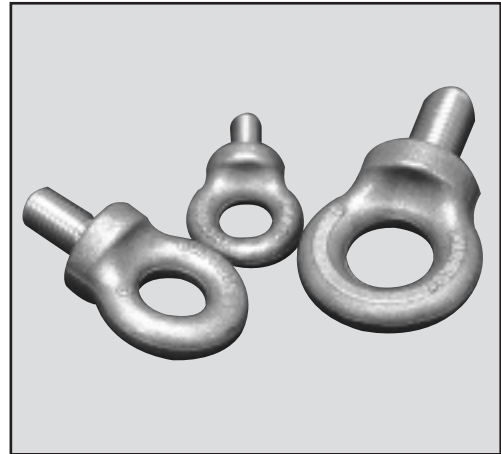
| Type | WLL F1 (t) | Weight F2 (kg) | D (mm) | K (mm) | L (mm) | Weight (kg) |
|-----------|---------------|-------------------|-----------|-----------|-----------|----------------|
| VRS-F-M8 | 1000 | 400 | 25 | 47 | 15 | 0.10 |
| VRS-F-M10 | 1000 | 400 | 25 | 47 | 15 | 0.12 |
| VRS-F-M12 | 2000 | 750 | 30 | 56 | 18 | 0.18 |
| VRS-F-M16 | 4000 | 1500 | 35 | 65 | 24 | 0.32 |
| VRS-F-M20 | 6000 | 2300 | 40 | 75 | 30 | 0.51 |
| VRS-F-M24 | 8000 | 3200 | 48 | 90 | 36 | 0.92 |
| VRS-F-M30 | 12000 | 4500 | 60 | 112 | 45 | 1.80 |
| VRS-F-M36 | 16000 | 7000 | 72 | 135 | 54 | 3.35 |
| VRS-F-M42 | 24000 | 9000 | 82 | 158 | 63 | 5.14 |
| VRS-F-M48 | 32000 | 12000 | 94 | 180 | 72 | 7.80 |

Collard Lifting Eyebolts

| Part No. | AØ | B | CØ | D | E | F |
|----------|-----|-----|-----|----|-----|-----|
| EYE10 | M10 | 21 | 14 | 9 | 20 | 18 |
| EYE12 | M12 | 28 | 19 | 11 | 25 | 23 |
| EYE16 | M16 | 35 | 24 | 15 | 32 | 30 |
| EYE20 | M20 | 42 | 29 | 16 | 37 | 40 |
| EYE22 | M22 | 50 | 33 | 20 | 44 | 41 |
| EYE24 | M24 | 57 | 38 | 22 | 51 | 46 |
| EYE30 | M30 | 71 | 48 | 28 | 66 | 50 |
| EYE33 | M33 | 71 | 48 | 28 | 65 | 50 |
| EYE38 | M38 | 86 | 55 | 33 | 75 | 66 |
| EYE39 | M39 | 86 | 55 | 33 | 75 | 66 |
| EYE42 | M42 | 102 | 66 | 40 | 92 | 77 |
| EYE48 | M48 | 115 | 72 | 49 | 102 | 89 |
| EYE56 | M56 | 143 | 95 | 56 | 127 | 111 |
| EYE64 | M64 | 143 | 95 | 56 | 127 | 111 |
| EYE76 | M76 | 163 | 106 | 66 | 144 | 125 |

| Part No. | AØ | B | CØ | D | E | F |
|----------|--------|-----|----|----|-----|-----|
| EYE24 | 3/8" | 21 | 14 | 9 | 20 | 18 |
| EYE32 | 1/2" | 28 | 19 | 11 | 25 | 23 |
| EYE40 | 5/8" | 35 | 24 | 15 | 32 | 30 |
| EYE48 | 3/4" | 42 | 29 | 16 | 37 | 40 |
| EYE56 | 7/8" | 50 | 33 | 20 | 44 | 41 |
| EYE64 | 1" | 57 | 38 | 22 | 51 | 46 |
| EYE72 | 1 1/8" | 71 | 48 | 28 | 66 | 50 |
| EYE80 | 1 1/4" | 71 | 48 | 28 | 65 | 50 |
| EYE96 | 1 1/2" | 86 | 55 | 33 | 75 | 66 |
| EYE112 | 1 3/4" | 86 | 55 | 33 | 75 | 66 |
| EYE128 | 2" | 102 | 66 | 40 | 92 | 77 |
| EYE160 | 2 1/2" | 115 | 72 | 49 | 102 | 89 |
| EYE192 | 3" | 143 | 95 | 56 | 127 | 111 |

Metric & Imperial



Mould Maintenance & Set Up

INJECTION MACHINE SHOTS PER HOUR

(BASED ON SECONDS PER CYCLE)

| Seconds Per Cycle | Shots Per Hour | Seconds Per Cycle | Shots Per Hour | Seconds Per Cycle | Shots Per Hour | Seconds Per Cycle | Shots Per Hour |
|-------------------|----------------|-------------------|----------------|-------------------|----------------|-------------------|----------------|
| 1 | 3600.0 | 31 | 116.1 | 61 | 59.0 | 91 | 39.6 |
| 2 | 1800.0 | 32 | 112.5 | 62 | 58.1 | 92 | 39.1 |
| 3 | 1200.0 | 33 | 109.1 | 63 | 57.1 | 93 | 38.7 |
| 4 | 900.0 | 34 | 105.9 | 64 | 56.3 | 94 | 38.3 |
| 5 | 720.0 | 35 | 102.9 | 65 | 55.4 | 95 | 37.9 |
| 6 | 600.0 | 36 | 100.0 | 66 | 54.5 | 96 | 37.5 |
| 7 | 514.3 | 37 | 97.3 | 67 | 53.7 | 97 | 37.1 |
| 8 | 450.0 | 38 | 94.7 | 68 | 52.9 | 98 | 36.7 |
| 9 | 400.0 | 39 | 92.3 | 69 | 52.2 | 99 | 36.4 |
| 10 | 360.0 | 40 | 90.0 | 70 | 51.4 | 100 | 36.0 |
| 11 | 327.3 | 41 | 87.8 | 71 | 50.7 | 101 | 35.6 |
| 12 | 300.0 | 42 | 85.7 | 72 | 50.0 | 102 | 35.3 |
| 13 | 276.9 | 43 | 83.7 | 73 | 49.3 | 103 | 35.0 |
| 14 | 257.1 | 44 | 81.8 | 74 | 48.6 | 104 | 34.6 |
| 15 | 240.0 | 45 | 80.0 | 75 | 48.0 | 105 | 34.3 |
| 16 | 225.0 | 46 | 78.3 | 76 | 47.4 | 106 | 34.0 |
| 17 | 211.8 | 47 | 76.6 | 77 | 46.8 | 107 | 33.6 |
| 18 | 200.0 | 48 | 75.0 | 78 | 46.2 | 108 | 33.3 |
| 19 | 189.5 | 49 | 73.5 | 79 | 45.6 | 109 | 33.0 |
| 20 | 180.0 | 50 | 72.0 | 80 | 45.0 | 110 | 32.7 |
| 21 | 171.4 | 51 | 70.6 | 81 | 44.4 | 111 | 32.4 |
| 22 | 163.6 | 52 | 69.2 | 82 | 43.9 | 112 | 32.1 |
| 23 | 156.5 | 53 | 67.9 | 83 | 43.4 | 113 | 31.9 |
| 24 | 150.0 | 54 | 66.7 | 84 | 42.9 | 114 | 31.6 |
| 25 | 144.0 | 55 | 65.5 | 85 | 42.4 | 115 | 31.3 |
| 26 | 138.5 | 56 | 64.3 | 86 | 41.9 | 116 | 31.0 |
| 27 | 133.3 | 57 | 63.2 | 87 | 41.4 | 117 | 30.8 |
| 28 | 128.6 | 58 | 62.1 | 88 | 40.9 | 118 | 30.5 |
| 29 | 124.1 | 59 | 61.0 | 89 | 40.4 | 119 | 30.3 |
| 30 | 120.0 | 60 | 60.0 | 90 | 40.0 | 120 | 30.0 |

GRAMS INTO OUNCES CONVERSION CHART

| GRAMS | OUNCES | GRAMS | OUNCES | GRAMS | OUNCES | GRAMS | OUNCES | GRAMS | OUNCES |
|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.0353 | 21 | 0.7408 | 41 | 1.4462 | 61 | 2.1517 | 81 | 2.8572 |
| 2 | 0.0705 | 22 | 0.7760 | 42 | 1.4815 | 62 | 2.1870 | 82 | 2.8925 |
| 3 | 0.1058 | 23 | 0.8113 | 43 | 1.5168 | 63 | 2.2223 | 83 | 2.9277 |
| 4 | 0.1411 | 24 | 0.8466 | 44 | 1.5521 | 64 | 2.2575 | 84 | 2.9630 |
| 5 | 0.1764 | 25 | 0.8818 | 45 | 1.5873 | 65 | 2.2928 | 85 | 2.9983 |
| 6 | 0.2116 | 26 | 0.9171 | 46 | 1.6226 | 66 | 2.3281 | 86 | 3.0336 |
| 7 | 0.2469 | 27 | 0.9524 | 47 | 1.6579 | 67 | 2.3634 | 87 | 3.0688 |
| 8 | 0.2822 | 28 | 0.9877 | 48 | 1.6932 | 68 | 2.3986 | 88 | 3.1041 |
| 9 | 0.3175 | 29 | 1.0229 | 49 | 1.7284 | 69 | 2.4339 | 89 | 3.1394 |
| 10 | 0.3527 | 30 | 1.0582 | 50 | 1.7637 | 70 | 2.4692 | 90 | 3.1747 |
| 11 | 0.3880 | 31 | 1.0935 | 51 | 1.7990 | 71 | 2.5045 | 91 | 3.2099 |
| 12 | 0.4233 | 32 | 1.1288 | 52 | 1.8342 | 72 | 2.5397 | 92 | 3.2452 |
| 13 | 0.4586 | 33 | 1.1640 | 53 | 1.8695 | 73 | 2.5750 | 93 | 3.2805 |
| 14 | 0.4938 | 34 | 1.1993 | 54 | 1.9048 | 74 | 2.6103 | 94 | 3.3158 |
| 15 | 0.5291 | 35 | 1.2346 | 55 | 1.9401 | 75 | 2.6455 | 95 | 3.3510 |
| 16 | 0.5644 | 36 | 1.2699 | 56 | 1.9753 | 76 | 2.6808 | 96 | 3.3863 |
| 17 | 0.5997 | 37 | 1.3051 | 57 | 2.0106 | 77 | 2.7161 | 97 | 3.4216 |
| 18 | 0.6349 | 38 | 1.3404 | 58 | 2.0459 | 78 | 2.7514 | 98 | 3.4568 |
| 19 | 0.6702 | 39 | 1.3757 | 59 | 2.0812 | 79 | 2.7866 | 99 | 3.4921 |
| 20 | 0.7055 | 40 | 1.4110 | 60 | 2.1164 | 80 | 2.8219 | 100 | 3.5274 |

(28.34952 Grams = 1 Ounce)

(453.5924 Grams = 1 Pound)