



Birla Precision Technologies Ltd.
**INDIAN TOOL
MANUFACTURERS**
(DIVISION)



PRICE LIST 1223

TWIST DRILLS | REAMERS | MILLING CUTTERS | GROUND THREAD TAPS
| MASONRY DRILLS | TOOL BITS



*APPLICATION SPECIFIC
TOOLS*



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**HSS PARALLEL SHANK (JOBBER SERIES)
TWIST DRILLS IS : 5101**

| SIZE | | | PRICE (Rs.) 10 Nos. | SIZE | | | PRICE (Rs.) 10 Nos. |
|-------|-------|-----|---------------------------|-------|--------|-----|---------------------------|
| MM | INCH | DG | | MM | INCH | DG | |
| 0.30 | | | 1727 | 2.90★ | | | 655 |
| 0.40 | | | 1497 | 2.95 | | 32 | 655 |
| 0.50 | | | 1087 | 3.00★ | | | 655 |
| 0.60 | | | 1087 | 3.05 | | 31★ | 780 |
| 0.70 | | | 1087 | 3.10★ | | | 780 |
| 0.80★ | | | 910 | 3.17 | 1/8★ | | 780 |
| 0.90★ | | | 868 | 3.20★ | | | 807 |
| 1.00★ | | | 554 | 3.26 | | 30★ | 807 |
| 1.02 | | 60 | 554 | 3.30★ | | | 807 |
| 1.04 | | 59 | 554 | 3.40★ | | | 807 |
| 1.07 | | 58 | 554 | 3.45 | | 29 | 807 |
| 1.09 | | 57 | 554 | 3.50★ | | | 807 |
| 1.10★ | | | 554 | 3.57 | 9/64★ | 28 | 807 |
| 1.18 | | 56 | 554 | 3.60★ | | | 1140 |
| 1.19 | 3/64★ | | 554 | 3.66 | | 27 | 1140 |
| 1.20★ | | | 554 | 3.70★ | | | 1140 |
| 1.30★ | | | 554 | 3.73 | | 26 | 1140 |
| 1.32 | | 55 | 554 | 3.80★ | | 25 | 1140 |
| 1.40★ | | 54 | 554 | 3.86 | | 24 | 1140 |
| 1.50★ | | | 554 | 3.90★ | | | 1140 |
| 1.51 | | 53 | 554 | 3.91 | | 23 | 1140 |
| 1.59 | 1/16★ | | 554 | 3.97 | 5/32★ | | 1140 |
| 1.60★ | | | 554 | 3.99 | | 22 | 1140 |
| 1.61 | | 52 | 596 | 4.00★ | | | 1140 |
| 1.70★ | | 51 | 596 | 4.04 | | 21 | 1384 |
| 1.78 | | 50★ | 596 | 4.09 | | 20 | 1384 |
| 1.80★ | | | 596 | 4.10★ | | | 1384 |
| 1.85 | | 49 | 596 | 4.20★ | | | 1384 |
| 1.90★ | | | 596 | 4.22 | | 19★ | 1384 |
| 1.93 | | 48★ | 596 | 4.30★ | | 18 | 1384 |
| 1.98 | 5/64★ | | 596 | 4.37 | 11/64★ | | 1384 |
| 1.99 | | 47★ | 596 | 4.39 | | 17 | 1384 |
| 2.00★ | | | 596 | 4.40★ | | | 1384 |
| 2.06 | | 46 | 596 | 4.50★ | | 16 | 1818 |
| 2.08 | | 45 | 596 | 4.57 | | 15 | 1818 |
| 2.10★ | | | 596 | 4.60 | | | 1818 |
| 2.18 | | 44 | 596 | 4.62 | | 14 | 1818 |
| 2.20★ | | | 596 | 4.70 | | 13 | 1818 |
| 2.26 | | 43★ | 596 | 4.76 | 3/16★ | | 1818 |
| 2.30★ | | | 596 | 4.80★ | | 12 | 1818 |
| 2.37 | | 42 | 596 | 4.85 | | 11 | 1973 |
| 2.38 | 3/32★ | | 596 | 4.90★ | | | 1973 |
| 2.40★ | | | 596 | 4.92 | | 10 | 1973 |
| 2.44 | | 41 | 596 | 4.98 | | 9 | 1973 |
| 2.49 | | 40 | 596 | 5.00★ | | | 1973 |
| 2.50★ | | | 596 | 5.06 | | 8 | 1973 |
| 2.53 | | 39 | 596 | 5.10★ | | | 1973 |
| 2.58 | | 38 | 596 | 5.11 | | 7 | 1973 |
| 2.60★ | | | 596 | 5.16 | 13/64★ | | 1973 |
| 2.64 | | 37 | 596 | 5.18 | | 6 | 1973 |
| 2.70★ | | | 596 | 5.20★ | | | 1973 |
| 2.71 | | 36 | 596 | 5.22 | | 5 | 2129 |
| 2.78 | 7/64★ | | 596 | 5.30★ | | | 2129 |
| 2.79 | | 35 | 655 | 5.31 | | 4 | 2129 |
| 2.80★ | | | 655 | 5.40★ | | | 2129 |
| 2.82 | | 34 | 655 | | | | |
| 2.87 | | 33 | 655 | | | | |

**HSS PARALLEL SHANK (JOBBER SERIES)
TWIST DRILLS IS : 5101**

| SIZE | | | PRICE (Rs.) 10 Nos. | SIZE | | | PRICE (Rs.) 10 Nos. |
|-------|--------|----|---------------------------|--------|--------|----|---------------------------|
| MM | INCH | DG | | MM | INCH | DG | |
| 5.41 | | 3 | 2129 | 8.60★ | | | 5435 |
| 5.50★ | | | 2129 | 8.61 | | R | 5435 |
| 5.56 | 7/32★ | | 2129 | 8.70★ | | | 5435 |
| 5.60 | | | 2129 | 8.73 | 11/32★ | | 5725 |
| 5.61 | | 2 | 2395 | 8.80★ | | | 5725 |
| 5.70★ | | | 2395 | 8.84 | | S | 5725 |
| 5.79 | | 1 | 2395 | 8.90 | | | 5725 |
| 5.80★ | | | 2395 | 9.00★ | | | 5725 |
| 5.90 | | | 2395 | 9.09 | | T | 5973 |
| 5.94 | | A | 2395 | 9.10 | | | 5973 |
| 5.95 | 15/64★ | | 2395 | 9.13 | 23/64★ | | 5973 |
| 6.00★ | | | 2395 | 9.20★ | | | 5973 |
| 6.04 | | B | 2608 | 9.30★ | | | 5973 |
| 6.10★ | | | 2608 | 9.34 | | U★ | 5973 |
| 6.15 | | C | 2608 | 9.40★ | | | 5973 |
| 6.20★ | | | 2608 | 9.50★ | | | 5973 |
| 6.25 | | D | 2608 | 9.52 | 3/8★ | | 6770 |
| 6.30★ | | | 2608 | 9.58 | | V | 6770 |
| 6.35★ | 1/4★ | E | 2608 | 9.60 | | | 6770 |
| 6.40★ | | | 2608 | 9.70 | | | 6770 |
| 6.50★ | | | 3267 | 9.80★ | | W | 6770 |
| 6.53 | | F★ | 3267 | 9.90 | | | 7579 |
| 6.60★ | | | 3267 | 9.92 | 25/64★ | | 7579 |
| 6.63 | | G | 3267 | 10.00★ | | | 7579 |
| 6.70★ | | | 3267 | 10.08 | | X | 7579 |
| 6.75 | 17/64★ | H | 3267 | 10.10 | | | 7579 |
| 6.80★ | | | 3267 | 10.20★ | | | 7579 |
| 6.90★ | | I | 3576 | 10.26 | | Y | 8212 |
| 7.00★ | | | 3576 | 10.30★ | | | 8212 |
| 7.03 | | J | 3576 | 10.32 | 13/32★ | | 8212 |
| 7.10★ | | | 3576 | 10.40★ | | | 8212 |
| 7.14 | 9/32★ | K | 3576 | 10.49 | | Z | 8212 |
| 7.20★ | | | 3576 | 10.50★ | | | 8212 |
| 7.30 | | | 3773 | 10.60 | | | 8212 |
| 7.37 | | L | 3773 | 10.70 | | | 8695 |
| 7.40 | | | 3773 | 10.72 | 27/64★ | | 8695 |
| 7.49 | | M | 3773 | 10.80 | | | 8695 |
| 7.50★ | | | 3773 | 10.90 | | | 8695 |
| 7.54 | 19/64★ | | 4084 | 11.00★ | | | 8695 |
| 7.60 | | | 4084 | 11.10 | | | 9705 |
| 7.67 | | N | 4084 | 11.11 | 7/16★ | | 9705 |
| 7.70 | | | 4084 | 11.20★ | | | 9705 |
| 7.80★ | | | 4084 | 11.30 | | | 9705 |
| 7.90★ | | | 4084 | 11.40 | | | 9705 |
| 7.94 | 5/16★ | | 4485 | 11.50★ | | | 10237 |
| 8.00★ | | | 4485 | 11.51 | 29/64★ | | 10237 |
| 8.03 | | O | 4485 | 11.60 | | | 10237 |
| 8.10★ | | | 4485 | 11.70 | | | 10237 |
| 8.20★ | | P | 4485 | 11.80★ | | | 10237 |
| 8.30★ | | | 5435 | 11.90 | | | 10933 |
| 8.33 | 21/64★ | | 5435 | 11.91 | 15/32★ | | 10933 |
| 8.40★ | | | 5435 | 12.00★ | | | 10933 |
| 8.43 | | Q | 5435 | 12.10 | | | 10933 |
| 8.50★ | | | 5435 | 12.20 | | | 10933 |

**HSS PARALLEL SHANK (JOBBER SERIES)
TWIST DRILLS IS : 5101**

| SIZE | | PRICE (Rs.) 10 Nos. | SIZE | | PRICE (Rs.) 10 Nos. |
|---------|---------|---------------------------|---------|--------|---------------------------|
| MM | INCH | | MM | INCH | |
| 12.30 | 31/64 ★ | 11596 | 14.29 | 9/16 ★ | 18615 |
| 12.40 | | 11596 | 14.50 ★ | | 18615 |
| 12.50 ★ | | 11596 | 14.68 | 37/64 | 20058 |
| 12.60 | | 11596 | 14.75 | | 20058 |
| 12.70 ★ | 1/2 ★ | 12243 | 15.00 ★ | | 20058 |
| 12.80 ★ | | 12349 | 15.08 | 19/32 | 20058 |
| 12.90 | | 12349 | 15.25 | | 20058 |
| 13.00 ★ | | 12349 | 15.48 | 39/64 | 21733 |
| 13.10 | 33/64 ★ | 15361 | 15.50 ★ | | 21733 |
| 13.20 | | 15361 | 15.75 | | 21733 |
| 13.30 | | 15361 | 15.87 | 5/8 ★ | 21733 |
| 13.40 | | 15361 | 16.00 ★ | | 21733 |
| 13.49 | 17/32 ★ | 16353 | 17.00 | | 22989 |
| 13.50 ★ | | 16353 | 17.46 | 11/16 | 22989 |
| 13.60 | | 16353 | 18.00 | | 24876 |
| 13.70 | | 16353 | 19.00 | | 26310 |
| 13.80 | | 16353 | 19.05 | 3/4 | 26310 |
| 13.89 | 35/64 | 17742 | 20.00 ★ | | 31429 |
| 13.90 | | 17742 | 21.00 | | 31429 |
| 14.00 ★ | | 17742 | 22.00 | | 35243 |
| 14.25 ★ | | 17742 | 22.22 | 7/8 | 35243 |

ITEMS MARKED ★ (ONLY IN RH) ARE EX-STOCK ITEMS. ALL REMAINING ITEMS IN (RH & LH) WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50000/- NETT OR MOQ OF 50 NOS. PER SIZE WHICHEVER IS HIGHER.

IMPORTANT NOTES :

- All sizes to be ordered in multiples of 10 only.
- For non-listed intermediate Sizes, the higher Price of the nearest listed size. (INCH or MM) will be applicable.
- (a) Quick Spiral or Slow Spiral Drills :
 Sizes up to (3.17 mm) 1/8" **50% extra**
 Sizes over (3.17 mm) 1/8" **25% extra**
 (b) Jobbers with Tenon **10% extra**
- For **M35 = 40% & M42 = 80% extra**

**HSS PARALLEL SHANK (JOBBER SERIES)
TWIST DRILLS IS : 5101**

Price Rs. / Set

Jobber Drill **25 Pcs. Set** (0.5 mm Rise)
1.00 To 13.00 MM. **12938**

Jobber Drill **13 Pcs. Set** (1/64" Rise)
1/16" To 1/4" **2378**

**HSS PARALLEL SHANK (STUB SERIES)
TWIST DRILLS IS : 5100**

| SIZE | | PRICE (Rs.) 10 Nos. | SIZE | | PRICE (Rs.) 10 Nos. |
|--------|---------|---------------------------|-------|-------|---------------------------|
| MM | INCH | | MM | INCH | |
| 1.00 ★ | | 581 | 9.20 | | 5414 |
| 1.19 | 3/64 | 581 | 9.50 | | 5414 |
| 1.20 | | 581 | 9.52 | 3/8 | 5660 |
| 1.50 | | 581 | 9.80 | | 5660 |
| 1.59 | 1/16 | 581 | 9.92 | 25/64 | 6925 |
| 1.80 | | 581 | 10.00 | | 6925 |
| 1.98 | 5/64 | 581 | 10.20 | | 6925 |
| 2.00 | | 581 | 10.32 | 13/32 | 7455 |
| 2.20 | | 581 | 10.50 | | 7455 |
| 2.38 | 3/32 | 581 | 10.72 | 27/64 | 8393 |
| 2.50 | | 581 | 10.80 | | 8393 |
| 2.78 | 7/64 ★ | 581 | 11.00 | | 8393 |
| 2.80 | | 628 | 11.11 | 7/16 | 8742 |
| 3.00 | | 655 | 11.20 | | 8742 |
| 3.17 | 1/8 ★ | 760 | 11.50 | | 9353 |
| 3.20 | | 797 | 11.51 | 29/64 | 9353 |
| 3.50 | | 797 | 11.80 | | 9353 |
| 3.57 | 9/64 ★ | 797 | 11.91 | 15/32 | 9895 |
| 3.80 | | 1104 | 12.00 | | 9895 |
| 3.97 | 5/32 ★ | 1104 | 12.20 | | 9895 |
| 4.00 | | 1104 | 12.30 | 31/64 | 10754 |
| 4.20 | | 1226 | 12.50 | | 10754 |
| 4.37 | 11/64 | 1226 | 12.70 | 1/2 | 10986 |
| 4.50 | | 1625 | 12.80 | | 11081 |
| 4.76 | 3/16 ★ | 1625 | 13.00 | | 11081 |
| 4.80 | | 1625 | 13.20 | | 12976 |
| 5.00 | | 1728 | 13.49 | 17/32 | 12976 |
| 5.16 | 13/64 ★ | 1728 | 13.50 | | 13828 |
| 5.20 | | 1728 | 13.80 | | 13828 |
| 5.50 | | 1877 | 14.00 | | 15055 |
| 5.56 | 7/32 | 1877 | 14.25 | | 15055 |
| 5.80 | | 2114 | 14.29 | 9/16 | 15055 |
| 5.95 | 15/64 | 2114 | 14.50 | | 15680 |
| 6.00 | | 2114 | 14.75 | | 16954 |
| 6.20 | | 2365 | 15.00 | | 16954 |
| 6.35 | 1/4 ★ | 2365 | 15.08 | 19/32 | 16954 |
| 6.50 | | 2858 | 15.25 | | 16954 |
| 6.75 | 17/64 | 2858 | 15.50 | | 18353 |
| 6.80 | | 2858 | 15.75 | | 18353 |
| 7.00 | | 3133 | 15.87 | 5/8 | 18353 |
| 7.14 | 9/32 | 3133 | 16.00 | | 18353 |
| 7.20 | | 3133 | 16.25 | | 18646 |
| 7.50 | | 3255 | 16.50 | | 18646 |
| 7.54 | 19/64 | 3576 | 16.67 | 21/32 | 18646 |
| 7.80 | | 3576 | 16.75 | | 19022 |
| 7.94 | 5/16 ★ | 3934 | 17.00 | | 19022 |
| 8.00 | | 3934 | 17.25 | | 19368 |
| 8.20 | | 3934 | 17.46 | 11/16 | 19368 |
| 8.33 | 21/64 | 4915 | 17.50 | | 19368 |
| 8.50 | | 4915 | 17.75 | | 19632 |
| 8.73 | 11/32 | 5126 | 18.00 | | 19632 |
| 8.80 | | 5126 | 18.25 | | 19981 |
| 9.00 | | 5126 | 18.26 | 23/32 | 19981 |
| 9.13 | 23/64 | 5414 | 18.50 | | 19981 |

HSS PARALLEL SHANK (STUB SERIES) TWIST DRILLS IS : 5100

| SIZE | | PRICE (Rs.) 10 Nos. | SIZE | | PRICE (Rs.) 10 Nos. |
|-------|--------|---------------------------|-------|---------|---------------------------|
| MM | INCH | | MM | INCH | |
| 18.75 | | 20336 | 27.00 | | 40521 |
| 19.00 | | 20336 | 27.50 | | 40521 |
| 19.05 | 3/4 | 20336 | 27.78 | 1.3/32 | 42883 |
| 19.25 | | 20681 | 28.00 | | 42883 |
| 19.50 | | 20681 | 28.50 | | 43209 |
| 19.75 | | 20681 | 28.57 | 1.1/8 | 43209 |
| 19.84 | 25/32 | 20681 | 29.00 | | 45342 |
| 20.00 | | 21035 | 29.37 | 1.5/32 | 49914 |
| 20.25 | | 21473 | 29.50 | | 49914 |
| 20.50 | | 21473 | 30.00 | | 50581 |
| 20.64 | 13/16 | 21473 | 30.16 | 1.3/16 | 50581 |
| 20.75 | | 22332 | 30.50 | | 56921 |
| 21.00 | | 22332 | 30.96 | 1.7/32 | 56921 |
| 21.25 | | 22604 | 31.00 | | 56921 |
| 21.43 | 27/32 | 22604 | 31.50 | | 57775 |
| 21.50 | | 23365 | 31.75 | 1.1/4 | 57775 |
| 21.75 | | 23664 | 32.00 | | 59019 |
| 22.00 | | 23664 | 32.50 | | 60868 |
| 22.22 | 7/8 | 23664 | 32.54 | 1.9/32 | 60868 |
| 22.25 | | 25171 | 33.00 | | 60868 |
| 22.50 | | 25171 | 33.34 | 1.5/16 | 60868 |
| 22.75 | | 25521 | 33.50 | | 64027 |
| 23.00 | | 25521 | 34.00 | | 64027 |
| 23.02 | 29/32 | 25521 | 34.13 | 1.11/32 | 70268 |
| 23.25 | | 26988 | 34.50 | | 70268 |
| 23.50 | | 26988 | 34.92 | 1.3/8 | 70268 |
| 23.75 | | 26988 | 35.00 | | 77264 |
| 23.81 | 15/16 | 26988 | 35.50 | | 78366 |
| 24.00 | | 29865 | 35.72 | 1.13/32 | 78366 |
| 24.25 | | 29865 | 36.00 | | 78366 |
| 24.50 | | 29865 | 36.50 | | 78366 |
| 24.61 | 31/32 | 29865 | 36.51 | 1.7/16 | 78366 |
| 24.75 | | 32760 | 37.00 | | 84242 |
| 25.00 | | 32760 | 37.31 | 1.15/32 | 85502 |
| 25.25 | | 32920 | 37.50 | | 85502 |
| 25.40 | 1 | 32920 | 38.00 | | 85502 |
| 25.50 | | 37154 | 38.10 | 1.1/2 | 85502 |
| 26.00 | | 37154 | 38.50 | | 95473 |
| 26.19 | 1.1/32 | 38012 | 39.00 | | 95473 |
| 26.50 | | 38012 | 39.50 | | 97117 |
| 26.99 | 1.1/16 | 38453 | 40.00 | | 97117 |

ITEMS MARKED ★ (ONLY IN RH) ARE EX-STOCK ITEMS. ALL REMAINING ITEMS IN (RH & LH) WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50000/- NETT OR MOQ OF 50 NOS. PER SIZE WHICHEVER IS HIGHER.

IMPORTANT NOTES :

- Sizes upto 13 mm should be ordered in multiples of 10 only.
- For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.
- Quick Spiral or Slow Spiral Drills :**
 Sizes upto (3.17 mm) 1/8" **50% extra**
 Sizes over (3.17 mm) 1/8" **25% extra**
- For **M35 = 40% & M42 = 80% extra**

HSS PARALLEL SHANK (LONG SERIES) TWIST DRILLS IS : 5102

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|-------|-------|------------------------|--------|-------|------------------------|
| MM | INCH | | MM | INCH | |
| 0.60 | | 608 | 5.30 | | 606 |
| 0.70 | | 568 | 5.40 | | 606 |
| 0.80 | | 508 | 5.50 | | 606 |
| 1.00 | | 322 | 5.56 | 7/32 | 606 |
| 1.10 | | 322 | 5.60 | | 657 |
| 1.19 | 3/64 | 322 | 5.70 | | 657 |
| 1.20 | | 322 | 5.80 | | 657 |
| 1.30 | | 322 | 5.90 | | 657 |
| 1.40 | | 322 | 5.95 | 15/64 | 657 |
| 1.50 | | 322 | 6.00★ | | 657 |
| 1.59 | 1/16 | 322 | 6.10 | | 750 |
| 1.60 | | 322 | 6.20 | | 750 |
| 1.70 | | 322 | 6.30 | | 750 |
| 1.80 | | 322 | 6.35 | 1/4★ | 686 |
| 1.90 | | 322 | 6.40 | | 956 |
| 1.98 | 5/64 | 322 | 6.50 | | 956 |
| 2.00★ | | 322 | 6.60 | | 1153 |
| 2.10 | | 322 | 6.70 | | 1153 |
| 2.20 | | 322 | 6.75 | 17/64 | 1153 |
| 2.30 | | 412 | 6.80 | | 1153 |
| 2.38 | 3/32★ | 412 | 6.90 | | 1153 |
| 2.40 | | 412 | 7.00 | | 1153 |
| 2.50★ | | 412 | 7.10 | | 1153 |
| 2.60 | | 412 | 7.14 | 9/32 | 1153 |
| 2.70 | | 412 | 7.20 | | 1153 |
| 2.78 | 7/64 | 412 | 7.30 | | 1153 |
| 2.80★ | | 412 | 7.40 | | 1153 |
| 2.90 | | 412 | 7.50 | | 1153 |
| 3.00★ | | 416 | 7.54 | 19/64 | 1153 |
| 3.10 | | 416 | 7.60 | | 1153 |
| 3.17 | 1/8★ | 416 | 7.70 | | 1153 |
| 3.20 | | 416 | 7.80 | | 1153 |
| 3.30★ | | 416 | 7.90 | | 1188 |
| 3.40 | | 416 | 7.94 | 5/16 | 1188 |
| 3.50★ | | 416 | 8.00★ | | 1188 |
| 3.57 | 9/64 | 416 | 8.10 | | 1188 |
| 3.60 | | 448 | 8.20 | | 1188 |
| 3.70 | | 448 | 8.30 | | 1188 |
| 3.80 | | 448 | 8.33 | 21/64 | 1188 |
| 3.90 | | 448 | 8.40 | | 1188 |
| 3.97 | 5/32★ | 448 | 8.50 | | 1197 |
| 4.00★ | | 448 | 8.60 | | 1258 |
| 4.10 | | 448 | 8.70 | | 1258 |
| 4.20 | | 448 | 8.73 | 11/32 | 1258 |
| 4.30 | | 448 | 8.80 | | 1523 |
| 4.37 | 11/64 | 448 | 9.00 | | 1323 |
| 4.40 | | 448 | 9.13 | 23/64 | 1497 |
| 4.50 | | 448 | 9.20 | | 1523 |
| 4.60 | | 448 | 9.50 | | 1323 |
| 4.70 | | 448 | 9.52 | 3/8 | 1323 |
| 4.76 | 3/16 | 448 | 9.80 | | 1531 |
| 4.80 | | 448 | 9.92 | 25/64 | 1531 |
| 4.90 | | 527 | 10.00★ | | 1384 |
| 5.00★ | | 527 | 10.20 | | 1531 |
| 5.10 | | 527 | | | |
| 5.16 | 13/64 | 527 | | | |
| 5.20 | | 527 | | | |

**HSS PARALLEL SHANK (LONG SERIES)
TWIST DRILLS IS : 5102**

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|-------|-------|------------------------|-------|--------|------------------------|
| MM | INCH | | MM | INCH | |
| 10.32 | 13/32 | 1384 | 18.65 | 47/64 | 3743 |
| 10.50 | | 1662 | 18.75 | | 3780 |
| 10.72 | 27/64 | 1889 | 19.00 | | 3780 |
| 10.80 | | 1889 | 19.05 | 3/4 | 3780 |
| 11.00 | | 1739 | 19.25 | | 3994 |
| 11.11 | 7/16 | 1739 | 19.45 | 49/64 | 4366 |
| 11.20 | | 2020 | 19.50 | | 3994 |
| 11.50 | | 1788 | 19.75 | | 3994 |
| 11.51 | 29/64 | 2020 | 19.84 | 25/32 | 3994 |
| 11.80 | | 2020 | 20.00 | | 4240 |
| 11.91 | 15/32 | 1788 | 20.24 | 51/64 | 4502 |
| 12.00 | | 1844 | 20.25 | | 4240 |
| 12.20 | | 2056 | 20.30 | | 4240 |
| 12.30 | 31/64 | 2056 | 20.64 | 13/16 | 4240 |
| 12.50 | | 1843 | 20.75 | | 4366 |
| 12.70 | 1/2 | 1843 | 21.00 | | 4366 |
| 12.80 | | 2821 | 21.03 | 53/64 | 4778 |
| 13.00 | | 2557 | 21.25 | | 4502 |
| 13.10 | 33/64 | 2843 | 21.43 | 27/32 | 4502 |
| 13.20 | | 2843 | 21.50 | | 4778 |
| 13.49 | 17/32 | 2608 | 21.75 | | 4778 |
| 13.50 | | 2843 | 21.83 | 55/64 | 5110 |
| 13.80 | | 3094 | 22.00 | | 4778 |
| 13.89 | 35/64 | 3094 | 22.22 | 7/8 | 4778 |
| 14.00 | | 2843 | 22.25 | | 5171 |
| 14.25 | | 2843 | 22.15 | | 5171 |
| 14.29 | 9/16 | 2843 | 22.62 | 57/64 | 5524 |
| 14.50 | | 2979 | 22.75 | | 5289 |
| 14.68 | 37/64 | 3281 | 23.00 | | 5289 |
| 14.75 | | 2979 | 23.02 | 29/32 | 5289 |
| 15.00 | | 2979 | 23.25 | | 5358 |
| 15.08 | 19/32 | 2979 | 23.42 | 59/64 | 6318 |
| 15.25 | | 3094 | 23.50 | | 5867 |
| 15.48 | 39/64 | 3381 | 23.75 | | 5867 |
| 15.50 | | 3094 | 23.81 | 15/16 | 5867 |
| 15.75 | | 3094 | 24.00 | | 6115 |
| 15.87 | 5/8 | 3094 | 24.21 | 61/64 | 6674 |
| 16.00 | | 3143 | 24.25 | | 6115 |
| 16.25 | | 3143 | 24.50 | | 6115 |
| 16.27 | 41/64 | 3498 | 24.61 | 31/32 | 6115 |
| 16.50 | | 3203 | 24.75 | | 6556 |
| 16.67 | 21/32 | 3203 | 25.00 | 63/64 | 6556 |
| 16.75 | | 3281 | 25.25 | | 6639 |
| 17.00 | | 3281 | 25.40 | 1 | 6639 |
| 17.07 | 43/64 | 3564 | 25.50 | | 8177 |
| 17.25 | | 3281 | 25.75 | | 8177 |
| 17.46 | 11/16 | 3281 | 25.80 | 1.1/64 | 8351 |
| 17.50 | | 3498 | 26.00 | | 8351 |
| 17.75 | | 3498 | 26.19 | 1.1/32 | 8351 |
| 17.86 | 45/64 | 3867 | 26.25 | | 9005 |
| 18.00 | | 3564 | 26.50 | | 9005 |
| 18.25 | | 3564 | 26.59 | 1.3/64 | 9206 |
| 18.26 | 23/32 | 3564 | 26.75 | | 9206 |
| 18.50 | | 3712 | 26.99 | 1.1/16 | 9206 |

**HSS PARALLEL SHANK (LONG SERIES)
TWIST DRILLS IS : 5102**

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|-------|--------|------------------------|-------|---------|------------------------|
| MM | INCH | | MM | INCH | |
| 27.00 | | 9383 | 29.37 | 1.5/32 | 10810 |
| 27.25 | | 9383 | 29.50 | | 10952 |
| 27.38 | 1.5/64 | 9490 | 29.75 | | 10952 |
| 27.50 | | 9490 | 29.77 | 1.11/64 | 11163 |
| 27.75 | | 9490 | 30.00 | | 11163 |
| 27.78 | 1.3/32 | 9490 | 30.16 | 1.3/16 | 11163 |
| 28.00 | | 10365 | 30.25 | | 11865 |
| 28.18 | 1.7/64 | 10503 | 30.50 | | 11865 |
| 28.25 | | 10503 | 30.56 | 1.13/64 | 12086 |
| 28.50 | | 10503 | 30.75 | | 12086 |
| 28.57 | 1.1/8 | 10503 | 30.96 | 1.7/32 | 12086 |
| 28.75 | | 10592 | 31.00 | | 13443 |
| 28.97 | 1.9/64 | 10810 | 31.25 | | 13443 |
| 29.00 | | 10810 | 31.35 | 1.15/64 | 13929 |
| 29.25 | | 10810 | 31.50 | | 13929 |

ITEMS MARKEDH (ONLY IN RH) ARE EX-STOCK ITEMS. ALL REMAINING ITEMS IN (RH) WILL ATTRACT MINIMUM ORDER VALUE OF Rs.50000/- NETT OR MOQ OF 50 NOS. PER SIZE WHICHEVER IS HIGHER.

IMPORTANT NOTES :

- For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.
- (a) Quick Spiral or Slow Spiral Drills :
 Sizes upto (3.17 mm) 1/8" **50% extra**
 Sizes over (3.17 mm) 1/8" **25% extra**
 (b) Long Series Drills with Tenon
 Sizes over 3 mm upto 6.50 mm **10% extra**
 Sizes over 6.50 mm **5% extra**
- For **M35 = 40% & M42 = 80% extra**
 Sizes below 1mm are manufactured to our Standard.

HSS TAPER SHANK TWIST DRILLS IS : 5103

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|-------|--------|------------------------|-------|--------|------------------------|
| MM | INCH | | MM | INCH | |
| 3.00★ | | 514 | 5.50★ | | 694 |
| 3.17 | 1/8★ | 514 | 5.56 | 7/32★ | 694 |
| 3.20 | | 537 | 5.80★ | | 714 |
| 3.50★ | | 514 | 5.95 | 15/64 | 714 |
| 3.57 | 9/64 | 537 | 6.00★ | | 694 |
| 3.80 | | 537 | 6.20 | | 800 |
| 3.97 | 5/32 | 514 | 6.35 | 1/4★ | 794 |
| 4.00★ | | 514 | 6.50★ | | 862 |
| 4.20★ | | 694 | 6.75 | 17/64★ | 875 |
| 4.37 | 11/64 | 694 | 6.80★ | | 875 |
| 4.50 | | 694 | 7.00★ | | 862 |
| 4.76 | 3/16★ | 694 | 7.14 | 9/32★ | 862 |
| 4.80★ | | 694 | 7.20★ | | 875 |
| 5.00★ | | 694 | 7.50★ | | 862 |
| 5.16 | 13/64★ | 714 | 7.54 | 19/64 | 875 |
| 5.20★ | | 714 | 7.80★ | | 875 |

HSS TAPER SHANK TWIST DRILLS IS : 5103

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|--------|--------|------------------------|--------|--------|------------------------|
| MM | INCH | | MM | INCH | |
| 7.94 | 5/16★ | 864 | 16.25★ | | 2855 |
| 8.00★ | | 864 | 16.27 | 41/64★ | 2855 |
| 8.20★ | | 1054 | 16.50★ | | 3034 |
| 8.33 | 21/64★ | 1110 | 16.67 | 21/32★ | 3034 |
| 8.50★ | | 962 | 16.75★ | | 3034 |
| 8.73 | 11/32★ | 1054 | 17.00★ | | 3034 |
| 8.80★ | | 1158 | 17.07 | 43/64 | 3084 |
| 9.00 | | 1054 | 17.25 | | 3084 |
| 9.13 | 23/64 | 1158 | 17.46 | 11/16★ | 3084 |
| 9.20 | | 1158 | 17.50★ | | 3201 |
| 9.50★ | | 1054 | 17.75 | | 3247 |
| 9.52 | 3/8★ | 1054 | 17.86 | 45/64★ | 3372 |
| 9.80 | | 1244 | 18.00★ | | 3372 |
| 9.92 | 25/64★ | 1244 | 18.25★ | | 3372 |
| 10.00★ | | 1126 | 18.26 | 23/32★ | 3372 |
| 10.20★ | | 1230 | 18.50★ | | 3372 |
| 10.32★ | 13/32 | 1188 | 18.65 | 47/64★ | 3413 |
| 10.50★ | | 1457 | 18.75★ | | 3413 |
| 10.72 | 27/64★ | 1510 | 19.00★ | | 3413 |
| 10.80★ | | 1510 | 19.05 | 3/4★ | 3413 |
| 11.00★ | | 1510 | 19.25 | | 3584 |
| 11.11 | 7/16★ | 1510 | 19.45 | 49/64 | 3584 |
| 11.20★ | | 1559 | 19.50★ | | 3584 |
| 11.50★ | | 1559 | 19.75 | | 3584 |
| 11.51 | 29/64★ | 1559 | 19.84 | 25/32★ | 3584 |
| 11.80★ | | 1559 | 20.00★ | | 3856 |
| 11.91 | 15/32★ | 1559 | 20.24 | 51/64 | 3903 |
| 12.00★ | | 1575 | 20.25★ | | 3903 |
| 12.20★ | | 1575 | 20.50 | | 3903 |
| 12.30 | 31/64 | 1575 | 20.64 | 13/16★ | 3903 |
| 12.50 | | 1575 | 20.75 | | 4069 |
| 12.70 | 1/2 | 1575 | 21.00★ | | 4069 |
| 12.80★ | | 2193 | 21.03 | 53/64 | 4168 |
| 13.00★ | | 2193 | 21.25 | | 4168 |
| 13.10 | 33/64★ | 2287 | 21.43 | 27/32 | 4168 |
| 13.20★ | | 2287 | 21.50 | | 4299 |
| 13.49 | 17/32★ | 2287 | 21.75★ | | 4299 |
| 13.50★ | | 2449 | 21.83 | 55/64 | 4379 |
| 13.80★ | | 2449 | 22.00 | | 4379 |
| 13.89 | 35/64★ | 2449 | 22.22★ | 7/8★ | 4379 |
| 14.00★ | | 2449 | 22.25 | | 4772 |
| 14.25★ | | 2633 | 22.50★ | | 4772 |
| 14.29 | 9/16★ | 2633 | 22.62★ | 57/64 | 4865 |
| 14.50★ | | 2734 | 22.75 | | 4865 |
| 14.68 | 37/64★ | 2734 | 23.00★ | | 4865 |
| 14.75★ | | 2734 | 23.02 | 29/32 | 5103 |
| 15.00★ | | 2734 | 23.25 | | 5649 |
| 15.08 | 19/32★ | 2734 | 23.42 | 59/64 | 5791 |
| 15.25★ | | 2774 | 23.50★ | | 5791 |
| 15.48 | 39/64★ | 2774 | 23.75 | | 5791 |
| 15.50★ | | 2774 | 23.81★ | 15/16 | 5791 |
| 15.75★ | | 2774 | 24.00★ | | 5962 |
| 15.87 | 5/8 | 2774 | 24.21 | 61/64 | 6063 |
| 16.00★ | | 2855 | 24.25 | | 6063 |

HSS TAPER SHANK TWIST DRILLS IS : 5103

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|--------|---------|------------------------|--------|---------|------------------------|
| MM | INCH | | MM | INCH | |
| 24.50★ | | 6063 | 33.73 | 1.21/64 | 14490 |
| 24.61 | 31/32 | 6063 | 34.00★ | | 14490 |
| 24.75 | | 6335 | 34.13 | 1.11/32 | 15104 |
| 25.00★ | 63/64 | 6335 | 34.50 | | 15869 |
| 25.25 | | 6419 | 34.58 | 1.23/64 | 16015 |
| 25.40 | 1★ | 6419 | 34.92 | 1.3/8★ | 16015 |
| 25.50★ | | 6977 | 35.00★ | | 16015 |
| 25.75 | | 6977 | 35.32 | 1.25/64 | 16974 |
| 25.80 | 1.1/64 | 7053 | 35.50 | | 16974 |
| 26.00★ | | 6795 | 35.72 | 1.13/32 | 16974 |
| 26.19 | 1.1/32 | 6784 | 36.00★ | | 17224 |
| 26.25 | | 7329 | 36.12 | 1.27/64 | 17579 |
| 26.50★ | | 7329 | 36.50★ | | 17579 |
| 26.59 | 1.3/64 | 7497 | 36.51 | 1.7/16 | 17579 |
| 26.75 | | 7497 | 36.91 | 1.29/64 | 17579 |
| 26.99 | 1.1/16★ | 7497 | 37.00★ | | 18014 |
| 27.00★ | | 7744 | 37.31 | 1.15/32 | 18014 |
| 27.25 | | 7744 | 37.50★ | | 19183 |
| 27.38 | 1.5/64 | 7767 | 37.70 | 1.31/64 | 19482 |
| 27.50★ | | 7767 | 38.00★ | | 19482 |
| 27.75 | | 7767 | 38.10 | 1.1/2★ | 19482 |
| 27.78 | 1.3/32 | 7767 | 38.15 | 1.33/64 | 20090 |
| 28.00★ | | 8493 | 38.89 | 1.17/32 | 20090 |
| 28.18 | 1.7/64 | 8517 | 39.00 | | 21278 |
| 28.25 | | 8517 | 39.29 | 1.35/64 | 21278 |
| 28.50★ | | 8517 | 39.50 | | 21278 |
| 28.57 | 1.1/8★ | 8517 | 39.69 | 1.9/16 | 21278 |
| 28.75 | | 8775 | 40.00★ | | 21825 |
| 28.97 | 1.9/64 | 8918 | 40.08 | 1.37/64 | 22184 |
| 29.00★ | | 8918 | 40.48 | 1.19/32 | 22184 |
| 29.25 | | 8918 | 40.50 | | 23071 |
| 29.37 | 1.5/32★ | 8918 | 40.88 | 1.39/64 | 23071 |
| 29.50★ | | 8953 | 41.00★ | | 23071 |
| 29.75 | | 8953 | 41.27 | 1.5/8 | 23071 |
| 29.77 | 1.11/64 | 9141 | 41.50 | | 23975 |
| 30.00★ | | 9141 | 41.67 | 1.41/64 | 23975 |
| 30.16 | 1.3/16 | 9651 | 42.00★ | | 23975 |
| 30.25 | | 10394 | 42.07 | 1.21/32 | 23975 |
| 30.50★ | | 10394 | 42.47 | 1.43/64 | 24590 |
| 30.56 | 1.13/64 | 10562 | 42.50 | | 24590 |
| 30.75 | | 10562 | 42.86 | 1.11/16 | 24892 |
| 30.96 | 1.7/32 | 10562 | 43.00★ | | 25476 |
| 31.00★ | | 11753 | 43.26 | 1.45/64 | 25476 |
| 31.25★ | | 11753 | 43.50 | | 25476 |
| 31.35 | 1.15/64 | 12266 | 43.66 | 1.23/32 | 25476 |
| 31.50★ | | 12266 | 44.00★ | | 26374 |
| 31.75 | 1.1/4★ | 12266 | 44.05 | 1.47/64 | 26374 |
| 32.00★ | | 13430 | 44.45 | 1.3/4 | 26374 |
| 32.15 | 1.17/64 | 13430 | 44.50 | | 26374 |
| 32.50★ | | 13430 | 44.85 | 1.49/64 | 26993 |
| 32.54 | 1.9/32 | 13430 | 45.00★ | | 26993 |
| 32.94 | 1.19/64 | 13751 | 45.24 | 1.25/32 | 26993 |
| 33.00★ | | 13751 | 45.50 | | 28215 |
| 33.34 | 1.5/16 | 13751 | 45.64 | 1.51/64 | 28215 |
| 33.50 | | 14223 | 46.00 | | 28215 |

HSS TAPER SHANK TWIST DRILLS IS : 5103

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|---------|---------|------------------|---------|---------|------------------|
| MM | INCH | | MM | INCH | |
| 46.04 | 1.13/16 | 28215 | 61.12 | 2.13/32 | 80902 |
| 46.43 | 1.53/64 | 29638 | 61.15 | | 80902 |
| 46.50 | | 29638 | 61.91 | 2.7/16 | 80902 |
| 46.83 | 1.27/32 | 29638 | 62.00 ★ | | 80902 |
| 47.00 | | 29638 | 62.50 | | 80902 |
| 47.23 | 1.53/64 | 30259 | 62.71 | 2.15/32 | 82264 |
| 47.50 | | 30259 | 63.00 | | 82264 |
| 47.62 | 1.7/8 | 30259 | 63.50 | 2.1/2 | 82264 |
| 48.00 ★ | | 32995 | 64.00 | | 90922 |
| 48.02 | 1.57/64 | 32995 | 64.29 | 2.17/32 | 90922 |
| 48.42 | 1.29/32 | 32995 | 65.00 ★ | | 90922 |
| 48.50 | | 33236 | 65.09 | 2.9/16 | 91598 |
| 48.82 | 1.59/64 | 33236 | 65.88 | 2.19/32 | 91598 |
| 49.00 ★ | | 33236 | 66.00 | | 91598 |
| 49.21 | 1.15/16 | 33236 | 66.67 | 2.5/8 | 91598 |
| 49.50 | | 33594 | 67.00 | | 93834 |
| 49.61 | 1.61/64 | 33594 | 67.47 | 2.21/32 | 100724 |
| 50.00 ★ | | 33594 | 68.00 | | 100724 |
| 50.01 | 1.31/32 | 33859 | 68.26 | 2.11/16 | 100724 |
| 50.40 | 1.63/64 | 35381 | 69.00 | | 109178 |
| 50.50 | | 35381 | 69.06 | 2.23/32 | 109178 |
| 50.80 | 2 ★ | 35381 | 69.85 | 2.3/4 | 109178 |
| 51.00 ★ | | 48037 | 70.00 | | 109178 |
| 51.50 | | 48037 | 70.64 | 2.25/32 | 117751 |
| 51.59 | 2.1/32 | 48037 | 71.00 | | 117751 |
| 52.00 ★ | | 48037 | 71.44 | 2.13/16 | 117751 |
| 52.39 | 2.1/16 | 48037 | 71.50 | | 117751 |
| 52.50 | | 62519 | 72.00 | | 120024 |
| 53.00 | | 62519 | 72.23 | 2.27/32 | 120024 |
| 53.18 | 2.3/32 | 62519 | 73.00 | | 120024 |
| 53.50 | | 62519 | 73.02 | 2.7/8 | 120024 |
| 53.97 | 2.1/8 | 62519 | 73.82 | 2.29/32 | 127739 |
| 54.00 | | 62519 | 74.00 | | 127739 |
| 54.50 | | 65676 | 74.61 | 2.15/16 | 127739 |
| 54.77 | 2.5/32 | 65676 | 75.00 ★ | | 129327 |
| 55.00 ★ | | 65583 | 75.41 | 2.31/32 | 129327 |
| 55.50 | | 65676 | 76.00 | | 129327 |
| 55.56 | 2.3/16 | 65676 | 76.20 | 3 | 129327 |
| 56.00 | | 68436 | 76.99 | 3.1/32 | 176926 |
| 56.36 | 2.7/32 | 68436 | 77.00 | | 176926 |
| 56.50 | | 68436 | 77.79 | 3.1/16 | 176926 |
| 57.00 | | 68436 | 78.00 | | 176926 |
| 57.15 | 2.1/4 | 68436 | 78.58 | 3.3/32 | 180453 |
| 57.50 | | 74686 | 79.00 | | 180453 |
| 57.94 | 2.9/32 | 74686 | 79.37 | 3.1/8 | 185243 |
| 58.00 ★ | | 74686 | 80.00 | | 185243 |
| 58.50 | | 74686 | 80.17 | 3.5/32 | 198134 |
| 58.74 | 2.5/16 | 74686 | 80.96 | 3.3/16 | 198134 |
| 59.00 | | 76113 | 81.00 | | 198134 |
| 59.50 | | 76113 | 81.76 | 3.7/32 | 203283 |
| 59.53 | 2.11/32 | 76113 | 82.00 | | 203283 |
| 60.00 ★ | | 76113 | 82.55 | 3.1/4 | 203283 |
| 60.32 | 2.3/8 | 76113 | 83.00 | | 207483 |
| 60.50 | | 80902 | 83.34 | 3.9/32 | 207483 |
| 61.00 | | 80902 | 84.00 | | 207483 |

HSS TAPER SHANK TWIST DRILLS IS : 5103

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|-------|---------|------------------|--------|---------|------------------|
| MM | INCH | | MM | INCH | |
| 84.14 | 3.5/16 | 210933 | 92.07 | 3.5/8 | 268478 |
| 84.99 | 3.11/32 | 210933 | 93.00 | | 268478 |
| 85.00 | | 202335 | 93.66 | 3.11/16 | 278633 |
| 85.72 | 3.3/8 | 240602 | 94.00 | | 278633 |
| 86.00 | | 240602 | 95.00 | | 278633 |
| 86.52 | 3.13/32 | 240602 | 95.25 | 3.3/4 | 278633 |
| 87.00 | | 240602 | 96.00 | | 287960 |
| 87.31 | 3.7/16 | 245630 | 96.84 | 3.13/16 | 287960 |
| 88.00 | | 245630 | 97.00 | | 287960 |
| 88.11 | 3.15/32 | 245630 | 98.00 | | 293053 |
| 88.90 | 3.1/2 | 245630 | 98.42 | 3.7/8 | 297235 |
| 89.00 | | 245630 | 99.00 | | 297235 |
| 90.00 | | 250640 | 100.00 | | 297235 |
| 90.49 | 3.9/16 | 259988 | 100.01 | 3.15/16 | 302329 |
| 91.00 | | 259988 | 101.00 | | 302329 |
| 92.00 | | 259988 | 101.60 | 4 | 302329 |
| | | | 102.00 | | 302329 |

ITEMS MARKED ★ (ONLY IN RH) ARE EX-STOCK ITEMS. ALL REMAINING ITEMS IN (RH) WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50000/- NETT OR MOQ OF 5 NOS. PER SIZE WHICHEVER IS HIGHER.

IMPORTANT NOTES :

- For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.
- Quick Spiral or Slow Spiral Drills : **25% extra**
- Oversize shank Drills to IS : 5104 in the following range **10% extra**
- For **M35 = 40% & M42 = 80% extra**

| SIZE RANGE | | MT NO. | INSTEAD OF MT NO. |
|---------------|-----------------|--------|-------------------|
| MM | INCH | | |
| 11.8 to 14.0 | 15/32 to 35/64 | 2 | 1 |
| 18.0 to 23.0 | 23/32 to 29/32 | 3 | 2 |
| 26.5 to 31.75 | 1.3/64 to 1.1/4 | 4 | 3 |
| 40.0 to 80.80 | 1.37/64 to 2 | 5 | 4 |
| 63.0 to 76.20 | 2.1/2 to 3 | 6 | 5 |

MORSE TAPER SHANK TWIST DRILLS (IS : 5103)

| MORSE TAPER SHANK NO. | DRILL SIZE | | | |
|-----------------------|------------|--------------|-------|--------------|
| | MM | | INCH | |
| | OVER | UPTO & INCL. | OVER | UPTO & INCL. |
| 1 | 3.00 | 14.00 | 1/8 | 35/64 |
| 2 | 14.00 | 23.00 | 35/64 | 29/32 |
| 3 | 23.00 | 31.75 | 29/32 | 1.1/4 |
| 4 | 31.75 | 50.80 | 1.1/4 | 2 |
| 5 | 50.80 | 76.20 | 2 | 3 |
| 6 | 76.20 | 100.00 | 3 | 4 |

HSS TAPER SHANK 3 OR 4 FLUTED CORE DRILLS IS : 5366

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|-------|--------|------------------|-------|---------|------------------|
| MM | INCH | | MM | INCH | |
| 7.94 | 5/16 | 1696 | 28.57 | 1.1/8 | 10650 |
| 8.00 | | 1699 | 29.00 | | 11146 |
| 9.52 | 3/8 | 1869 | 29.37 | 1.5/32 | 11146 |
| 10.00 | | 1869 | 30.00 | | 11838 |
| 10.32 | 13/32 | 1869 | 30.16 | 1.3/16 | 11838 |
| 11.00 | | 1871 | 30.96 | 1.7/32 | 12289 |
| 11.11 | 7/16 | 1871 | 31.00 | | 13816 |
| 11.91 | 15/32 | 2001 | 31.75 | 1.1/4 | 14426 |
| 12.00 | | 2001 | 32.00 | | 15808 |
| 12.70 | 1/2 | 2115 | 32.54 | 1.9/32 | 15808 |
| 13.00 | | 2859 | 33.00 | | 16140 |
| 13.49 | 17/32 | 3129 | 33.34 | 1.5/16 | 16140 |
| 14.00 | | 3129 | 34.00 | | 17700 |
| 14.29 | 9/16 | 3218 | 34.13 | 1.11/32 | 17700 |
| 15.00 | | 3359 | 34.92 | 1.3/8 | 18694 |
| 15.08 | 19/32 | 3359 | 35.00 | | 18694 |
| 15.87 | 5/8 | 3435 | 35.72 | 1.13/32 | 20106 |
| 16.00 | | 3435 | 36.00 | | 20106 |
| 16.67 | 21/32 | 3620 | 36.51 | 1.7/16 | 21211 |
| 17.00 | | 3620 | 37.00 | | 21211 |
| 17.46 | 11/16 | 3909 | 37.31 | 1.15/32 | 21814 |
| 18.00 | | 4207 | 38.00 | | 23338 |
| 18.26 | 23/32 | 4207 | 38.10 | 1.1/2 | 23338 |
| 19.00 | | 4804 | 39.00 | | 25593 |
| 19.05 | 3/4 | 4804 | 39.69 | 1.9/16 | 25593 |
| 19.84 | 25/32 | 4827 | 40.00 | | 25593 |
| 20.00 | | 4827 | 41.00 | | 28206 |
| 20.64 | 13/16 | 5162 | 41.27 | 1.5/8 | 28206 |
| 21.00 | | 5125 | 42.00 | | 29042 |
| 21.43 | 27/32 | 5458 | 42.07 | 1.21/32 | 29042 |
| 22.00 | | 5458 | 42.86 | 1.11/16 | 29978 |
| 22.22 | 7/8 | 5791 | 43.00 | | 29978 |
| 23.00 | | 6131 | 44.00 | | 31684 |
| 23.02 | 29/32 | 6131 | 44.45 | 1.3/4 | 31684 |
| 23.81 | 15/16 | 6692 | 45.00 | | 32804 |
| 24.00 | | 7023 | 45.24 | 1.25/32 | 32803 |
| 24.61 | 31/32 | 7023 | 46.00 | | 34019 |
| 25.00 | | 8126 | 46.04 | 1.13/16 | 34019 |
| 25.40 | 1 | 8126 | 47.00 | | 35353 |
| 26.00 | | 8772 | 47.62 | 1.7/8 | 37174 |
| 26.19 | 1.1/32 | 8772 | 48.00 | | 37174 |
| 26.99 | 1.1/16 | 9681 | 49.00 | | 39695 |
| 27.00 | | 9681 | 49.21 | 1.15/16 | 39695 |
| 27.78 | 1.3/32 | 10049 | 50.00 | | 42717 |
| 28.00 | | 10649 | 50.80 | 2 | 47233 |

HSS TAPER SHANK 3 OR 4 FLUTED CORE DRILLS IS : 5366

| SIZE | | PRICE (Rs.) EACH | SIZE | | PRICE (Rs.) EACH |
|-------|--------|------------------|-------|---------|------------------|
| MM | INCH | | MM | INCH | |
| 51.00 | | 47643 | 64.00 | | 89222 |
| 52.00 | | 52472 | 65.00 | | 89222 |
| 52.39 | 2.1/16 | 52472 | 65.09 | 2.9/16 | 89222 |
| 53.00 | | 61293 | 66.00 | | 93549 |
| 53.97 | 2.1/8 | 61293 | 66.67 | 2.5/8 | 93549 |
| 54.00 | | 61293 | 67.00 | | 97454 |
| 55.00 | | 64246 | 68.00 | | 102185 |
| 55.36 | 2.3/16 | 64246 | 68.26 | 2.11/16 | 102185 |
| 56.00 | | 66966 | 69.00 | | 107179 |
| 57.00 | | 66966 | 69.85 | 2.3/4 | 109187 |
| 57.15 | 2.1/4 | 66966 | 70.00 | | 109187 |
| 58.00 | | 73181 | 71.00 | | 111348 |
| 58.74 | 2.5/16 | 73181 | 71.44 | 2.13/16 | 111348 |
| 59.00 | | 74534 | 72.00 | | 116437 |
| 60.00 | | 74534 | 73.00 | | 120754 |
| 60.32 | 2.3/8 | 74534 | 73.02 | 2.7/8 | 120754 |
| 61.00 | | 79433 | 74.00 | | 125319 |
| 61.91 | 2.7/16 | 79433 | 74.61 | 2.15/16 | 125319 |
| 62.00 | | 79433 | 75.00 | | 129937 |
| 63.00 | | 81716 | 76.00 | | 136178 |
| 63.50 | 2.1/2 | 81716 | 76.20 | 3 | 136178 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50000/- NETT OR 5NOS. PER SIZE WHICHEVER IS HIGHER.

IMPORTANT NOTES :

1. For non listed intermediate sizes. The higher price of the nearest listed size (INCH or MM) will be applicable.
2. Sizes upto 20 mm will be with 3 flutes and above 20 mm will be with 4 flutes unless otherwise specified.
3. Core drills with non-standard number of flutes - 10% extra
4. For M35 = 40% & M42 = 80% extra

HSS SHELL DRILLS BS : 122 - 1964*

| NOM DIA INCH | PRICE (Rs.) EACH | NOM DIA INCH | PRICE (Rs.) EACH |
|--------------|------------------|--------------|------------------|
| 1 | 4242 | 2 | 9377 |
| 1.1/16 | 4479 | 2.1/8 | 10364 |
| 1.1/8 | 4747 | 2.1/4 | 11342 |
| 1.3/16 | 5038 | 2.3/8 | 12690 |
| 1.1/4 | 5261 | 2.1/2 | 15433 |
| 1.5/16 | 5517 | 2.5/8 | 17930 |
| 1.3/8 | 5831 | 2.3/4 | 19725 |
| 1.7/16 | 6087 | 2.7/8 | 21920 |
| 1.1/2 | 6307 | 3 | 24072 |
| 1.9/16 | 6668 | 3.1/8 | 26992 |
| 1.5/8 | 6960 | 3.1/4 | 29602 |
| 1.11/16 | 7900 | 3.3/8 | 31837 |
| 1.3/4 | 8082 | 3.1/2 | 34183 |
| 1.13/16 | 8398 | 3.5/8 | 40386 |
| 1.7/8 | 8651 | 3.3/4 | 42249 |
| 1.15/16 | 9069 | 3.7/8 | 48905 |
| | | 4 | 54045 |

IMPORTANT NOTES

- * For Metric sizes , price as per IS: 7772 - 1992 of the next listed size will be applicable.
- ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50000/- NETT OR 5NOS. PER SIZE WHICHEVER IS HIGHER.
- For M35 = 40% & M42 = 80% extra

**HSS COMBINED DRILLS & COUNTERSINKS
(CENTRE DRILLS) IS : 6708 / TYPE 'A'**

| PILOT DIA MM | BODY DIA MM | PRICE (Rs.) EACH | PILOT DIA MM | BODY DIA MM | PRICE (Rs.) EACH |
|--------------|-------------|------------------|--------------|-------------|------------------|
| 1 | 3.15 | 279 | 4★ | 10 | 615 |
| 1.25 | 3.15 | 279 | 5 | 12.5 | 1037 |
| 1.6★ | 4 | 279 | 6.3 | 16 | 1227 |
| 2★ | 5 | 279 | 8 | 20 | 1894 |
| 2.5★ | 6.3 | 322 | 10 | 25 | 2439 |
| 3.15★ | 8 | 498 | | | |

**HSS COMBINED DRILLS & COUNTERSINKS
(CENTRE DRILLS) IS : 6710 / TYPE 'R'**

| PILOT DIA MM | BODY DIA MM | PRICE (Rs.) EACH | PILOT DIA MM | BODY DIA MM | PRICE (Rs.) EACH |
|--------------|-------------|------------------|--------------|-------------|------------------|
| 2 | 5 | 278 | 5 | 12.5 | 1037 |
| 2.5 | 6.3 | 322 | 6.3 | 16 | 1227 |
| 3.15 | 8 | 498 | 8 | 20 | 1894 |
| 4 | 10 | 616 | 10 | 25 | 2439 |

**HSS COMBINED DRILLS & COUNTERSINKS
(CENTRE DRILLS) IS : 6709 / TYPE 'B'**

| PILOT DIA MM | BODY DIA MM | PRICE (Rs.) EACH | PILOT DIA MM | BODY DIA MM | PRICE (Rs.) EACH |
|--------------|-------------|------------------|--------------|-------------|------------------|
| 1 | 4 | 458 | 4★ | 14 | 1833 |
| 1.25 | 5 | 489 | 5★ | 18 | 2620 |
| 1.6 | 6.3 | 570 | 6.3 | 20 | 3087 |
| 2 | 8 | 806 | 8 | 25 | 3995 |
| 2.5 | 10 | 1029 | 10 | 31.5 | 4742 |
| 3.15 | 11.20 | 1369 | | | |

**HSS COMBINED DRILLS & COUNTERSINKS
(CENTRE DRILLS) BS : 328 (PART 2) 1950**

| B.S. NO. | PILOT DIA INCH | BODY DIA INCH | OAL INCH | PRICE (Rs.) EACH |
|----------|----------------|---------------|----------|------------------|
| BS-1 | 3/64 | 1/8 | 1.1/2 | 279 |
| BS-2★ | 1/16 | 3/16 | 1.3/4 | 279 |
| BS-3★ | 3/32 | 1/4 | 2 | 322 |
| BS-4★ | 1/8 | 5/16 | 2.1/4 | 498 |
| BS-5★ | 3/16 | 7/16 | 2.1/2 | 651 |
| BS-6★ | 1/4 | 5/8 | 3 | 1227 |
| BS-7 | 5/16 | 3/4 | 3.1/2 | 1894 |

ITEMS MARKEDH ARE EX-STOCK ITEMS. ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50000/- NETT OR MOQ OF 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

**HSS TAPER SHANK TWIST DRILLS (LONG SERIES)
IS : 8305 - 1976 (TYPE - N)**

| SIZE | | OAL | PRICE (Rs.) EACH | SIZE | | OAL | PRICE (Rs.) EACH |
|--------|--------|-----|------------------|--------|------|-----|------------------|
| MM | INCH | | | MM | INCH | | |
| 5.00★ | | 155 | 1570 | 12.50 | 215 | | 4010 |
| | 13/64 | 155 | 1570 | 1/2 | 215 | | 4010 |
| 5.20 | | 155 | 1570 | 12.80 | 215 | | 4010 |
| 5.50 | | 161 | 1749 | 13.00★ | 215 | | 4010 |
| | 7/32 | 161 | 1749 | 33/64 | 215 | | 4010 |
| 5.80 | | 161 | 1749 | 13.20 | 215 | | 4011 |
| | 15/64 | 161 | 1749 | 17/32 | 223 | | 4396 |
| 6.00★ | | 161 | 1749 | 13.50 | 223 | | 4396 |
| 6.20 | | 167 | 1949 | 13.80 | 223 | | 4573 |
| | 1/4 | 167 | 1948 | 35/64 | 223 | | 4573 |
| 6.50 | | 167 | 1949 | 14.00★ | 223 | | 4574 |
| | 17/64 | 174 | 2101 | 14.25 | 245 | | 5707 |
| 6.80 | | 174 | 2101 | 9/16 | 245 | | 5707 |
| 7.00 | | 174 | 2101 | 14.50 | 245 | | 5835 |
| | 9/32 | 174 | 2101 | 37/64 | 245 | | 5835 |
| 7.20 | | 174 | 2166 | 14.75 | 245 | | 5835 |
| 7.50 | | 174 | 2166 | 15.00 | 245 | | 5835 |
| | 19/64 | 181 | 2291 | 19/32 | 251 | | 5965 |
| 7.80 | | 181 | 2291 | 15.25 | 251 | | 5965 |
| | 5/16 | 181 | 2291 | 39/64 | 251 | | 5965 |
| 8.00★ | | 181 | 2291 | 15.50 | 251 | | 5965 |
| 8.20 | | 181 | 2337 | 15.75 | 251 | | 6119 |
| | 21/64 | 181 | 2337 | 5/8 | 251 | | 6119 |
| 8.50★ | | 181 | 2337 | 16.00 | 251 | | 6119 |
| | 11/32 | 188 | 2533 | 16.25 | 257 | | 6227 |
| 8.80 | | 188 | 2534 | 41/64 | 257 | | 6227 |
| 9.00★ | | 188 | 2534 | 16.50 | 257 | | 6227 |
| | 23/64★ | 188 | 2594 | 21/32 | 257 | | 6360 |
| 9.20 | | 188 | 2594 | 16.75 | 257 | | 6360 |
| 9.50 | | 188 | 2594 | 17.00 | 257 | | 6360 |
| | 3/8 | 197 | 2594 | 43/64 | 263 | | 6905 |
| 9.80 | | 197 | 2946 | 17.25 | 263 | | 6905 |
| | 25/64 | 197 | 2946 | 11/16 | 263 | | 6905 |
| 10.00★ | | 197 | 2946 | 17.50 | 263 | | 6905 |
| 10.20 | | 197 | 3028 | 17.75 | 263 | | 6922 |
| | 13/32 | 197 | 3028 | 45/64 | 263 | | 6922 |
| 10.50 | | 197 | 3028 | 18.00★ | 263 | | 6922 |
| | 27/64 | 206 | 3094 | 18.25 | 269 | | 7031 |
| 10.80★ | | 206 | 3094 | 23/32 | 269 | | 7031 |
| 11.00 | | 206 | 3094 | 18.50 | 269 | | 7031 |
| | 7/16 | 206 | 3210 | 47/64 | 269 | | 7143 |
| 11.20★ | | 206 | 3210 | 18.75 | 269 | | 7143 |
| 11.50 | | 206 | 3210 | 19.00 | 269 | | 7143 |
| | 29/64 | 206 | 3210 | 3/4 | 275 | | 7143 |
| 11.80 | | 206 | 3210 | 19.25 | 275 | | 7338 |
| | 15/32 | 215 | 3804 | 49/64 | 275 | | 7338 |
| 12.00 | | 215 | 3804 | 19.50 | 275 | | 7338 |
| 12.20 | | 215 | 4010 | 19.75 | 275 | | 7459 |
| | 31/64 | 215 | 4010 | 25/32 | 275 | | 7459 |

HSS TAPER SHANK TWIST DRILLS (LONG SERIES)
IS : 8305 - 1976 (TYPE-N)

| SIZE | | OAL | PRICE (Rs.) EACH | SIZE | | OAL | PRICE (Rs.) EACH |
|--------|--------|-----|------------------------|-------|---------|-----|------------------------|
| MM | INCH | MM | | MM | INCH | MM | |
| 20.00 | | 275 | 7459 | 28.25 | | 351 | 18849 |
| | 51/64 | 282 | 7583 | 28.50 | | 351 | 18849 |
| 20.25 | | 282 | 7583 | | | | |
| 20.50 | | 282 | 7583 | | 1.1/8 | 351 | 18849 |
| | 13/16 | 282 | 7724 | 28.75 | | 351 | 19380 |
| 20.75 | | 282 | 7724 | | | | |
| 21.00★ | | 282 | 7724 | 29.00 | | 351 | 19380 |
| | 53/64 | 282 | 8974 | 29.25 | | 351 | 19916 |
| 21.25 | | 289 | 8973 | | 1.5/32 | 351 | 19916 |
| | 27/32 | 289 | 8974 | 29.50 | | 351 | 19916 |
| 21.50 | | 289 | 8973 | 29.75 | | 351 | 20481 |
| 21.75 | | 289 | 9153 | 30.00 | | 351 | 20481 |
| | 55/64 | 289 | 9153 | | 1.3/16 | 360 | 20481 |
| 22.00 | | 289 | 9153 | 30.25 | | 360 | 21024 |
| | 7/8 | 289 | 9774 | 30.50 | | 360 | 21024 |
| 22.25 | | 289 | 9774 | 30.75 | | 360 | 21024 |
| 22.50 | | 296 | 9774 | | 1.7/32 | 360 | 21024 |
| | 57/64 | 296 | 10246 | 31.00 | | 360 | 21024 |
| 22.75 | | 296 | 10246 | 31.25 | | 360 | 21177 |
| 23.00 | | 296 | 10246 | 31.50 | | 360 | 21177 |
| | 29/32 | 296 | 12516 | 31.75 | 1.1/4 | 369 | 21994 |
| 23.25 | | 319 | 12516 | 32.00 | | 397 | 25334 |
| | 59/64 | 319 | 12516 | 32.50 | | 397 | 26430 |
| 23.50 | | 319 | 12516 | | 1.9/32 | 397 | 26430 |
| 23.75 | | 327 | 12516 | 33.00 | | 397 | 26430 |
| | 15/16 | 327 | 12516 | | 1.5/16 | 397 | 26430 |
| 24.00 | | 327 | 12516 | 33.50 | | 397 | 27580 |
| | 61/64 | 327 | 13063 | 34.00 | | 406 | 27580 |
| 24.25 | | 327 | 13063 | | 1.11/32 | 406 | 28786 |
| 24.50 | | 327 | 13063 | 34.50 | | 406 | 28786 |
| | 31/32 | 327 | 13540 | | 1.3/8 | 406 | 28786 |
| 24.75 | | 327 | 13540 | 35.00 | | 406 | 28786 |
| 25.00 | | 327 | 13540 | 35.50 | | 406 | 28786 |
| 25.25★ | | 335 | 13540 | | 1.13/32 | 416 | 31543 |
| | 1 | 335 | 13540 | 36.00 | | 416 | 31543 |
| 25.50 | | 335 | 13540 | 36.50 | | 416 | 32723 |
| 25.75 | | 335 | 14081 | | 1.7/16 | 416 | 32723 |
| 26.00 | | 335 | 14081 | 37.00 | | 416 | 32723 |
| | 1.1/32 | 335 | 14486 | | 1.15/32 | 416 | 35438 |
| 26.25 | | 335 | 14486 | 37.50 | | 416 | 35438 |
| 26.50 | | 335 | 14486 | 38.00 | | 426 | 35438 |
| 26.75 | | 343 | 17170 | | 1.1/2 | 426 | 35438 |
| | 1.1/16 | 343 | 17170 | 38.50 | | 426 | 36600 |
| 27.00 | | 343 | 17170 | | 1.17/32 | 426 | 36600 |
| 27.25 | | 343 | 17718 | 39.00 | | 426 | 36600 |
| 27.50 | | 343 | 17718 | 39.50 | | 426 | 38049 |
| 27.75 | | 343 | 18262 | | 1.9/16 | 426 | 38049 |
| | 1.3/32 | 343 | 18262 | 40.00 | | 426 | 38049 |
| 28.00 | | 343 | 18829 | | | | |

HSS TAPER SHANK TWIST DRILLS (LONG SERIES)
IS : 8305 - 1976 (TYPE-N)

| SIZE | | OAL | PRICE (Rs.) EACH | SIZE | | OAL | PRICE (Rs.) EACH |
|-------|---------|-----|------------------------|-------|---------|-----|------------------------|
| MM | INCH | MM | | MM | INCH | MM | |
| | 1.19/32 | 436 | 38049 | | 1.25/32 | | 52602 |
| 40.50 | | 436 | 38049 | 45.50 | | 459 | 52602 |
| 41.00 | | 436 | 38049 | 46.00 | | | 52602 |
| | 1.5/8 | 436 | 38049 | | 1.13/16 | | 52602 |
| 41.50 | | 436 | 39996 | 46.50 | | 459 | 54742 |
| 42.00 | | 436 | 39996 | | 1.27/32 | | 54742 |
| | 1.21/32 | 436 | 42316 | 47.00 | | | 54742 |
| 42.50 | | 436 | 42316 | 47.50 | | 459 | 57507 |
| | 1.11/16 | 447 | 45459 | | 1.7/8 | 470 | 57507 |
| 43.00 | | 447 | 45459 | 48.00 | | | 57507 |
| 43.50 | | 447 | 47920 | | 1.29/32 | | 62986 |
| | 1.23/32 | 447 | 47920 | 48.50 | | 470 | 62986 |
| 44.00 | | 447 | 47920 | 49.00 | | | 62986 |
| | 1.3/4 | 447 | 49891 | | 1.15/16 | 470 | 62986 |
| 44.50 | | 447 | 49891 | 49.50 | | | 62986 |
| 45.00 | | 447 | 49891 | 50.00 | | | 66230 |

ITEMS MARKED H ARE EX-STOCK ITEMS. ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50000/- NETT OR MOQ OF 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

IMPORTANT NOTE :

For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.

HSS TAPER SHANK TWIST DRILLS - EXTRA LONG IS : 7822 - 1975

| SIZE | | OVERALL LENGTH IN MILLIMETERS | | | | | | | | | | | | |
|------|------|-------------------------------|------|------|------|------|------|------|-----|-----|-----|---|---|---|
| | | 200 | 225 | 250 | 275 | 300 | 315 | 325 | 350 | 375 | 400 | | | |
| MM | INCH | PRICE EACH | | | | | | | | | | | | |
| 3.00 | 1/8 | 2208 | 2594 | 2874 | 3270 | 3709 | - | 4282 | - | - | - | - | - | - |
| 3.50 | | 2268 | 2594 | 2955 | 3352 | 3803 | - | 4398 | - | - | - | - | - | - |
| 4.00 | 5/32 | 2268 | 2594 | 2955 | 3352 | 3803 | - | 4398 | - | - | - | - | - | - |
| 4.50 | | 2328 | 2668 | 2955 | 3432 | 4033 | - | 4627 | - | - | - | - | - | - |
| 5.00 | 3/16 | 2328 | 2668 | 2955 | 3432 | 4033 | - | 4627 | - | - | - | - | - | - |
| 5.50 | 7/32 | 2328 | 2688 | 3099 | 3634 | 4118 | - | 4750 | - | - | - | - | - | - |
| 6.00 | | 2339 | 2688 | 3129 | 3634 | 4118 | 4502 | 4750 | - | - | - | - | - | - |
| 6.50 | 1/4 | 2374 | 2772 | 3146 | 3817 | 4282 | 4644 | 4889 | - | - | - | - | - | - |
| 7.00 | | 2587 | 2913 | 3269 | 3889 | 4479 | 4927 | 5136 | - | - | - | - | - | - |
| 7.50 | | 2616 | 2985 | 3364 | 3959 | 4598 | 5038 | 5232 | - | - | - | - | - | - |
| 8.00 | 5/16 | 2733 | 3052 | 3498 | 4102 | 4713 | 5117 | 5378 | - | - | - | - | - | - |
| 8.50 | | 2821 | 3166 | 3565 | 4176 | 4802 | 5181 | 5528 | - | - | - | - | - | - |

HSS TAPER SHANK TWIST DRILLS - EXTRA LONG IS : 7822 - 1975 (Contd.)

| SIZE | | OVERALL LENGTH IN MILLIMETERS | | | | | | | | | | | | |
|-------|------|-------------------------------|------|------|------|------|------|------|------|------|------|---|---|---|
| | | 200 | 225 | 250 | 275 | 300 | 315 | 325 | 350 | 375 | 400 | | | |
| MM | INCH | PRICE EACH | | | | | | | | | | | | |
| 9.00 | | 2867 | 3213 | 3651 | 4197 | 4837 | 5315 | 5574 | - | - | - | - | - | - |
| 9.50 | 3/8 | 2937 | 3250 | 3651 | 4312 | 4960 | 5388 | 5599 | - | - | - | - | - | - |
| 10.00 | | 2946 | 3333 | 3759 | 4389 | 5056 | 5519 | 5753 | 6440 | 7261 | 8076 | - | - | - |
| 10.50 | | 3028 | 3459 | 4010 | 4637 | 5315 | 5755 | 6045 | 6912 | 7766 | 8750 | - | - | - |
| 11.00 | | 3095 | 3565 | 4051 | 4713 | 5413 | 5943 | 6201 | 7039 | 7893 | 8824 | - | - | - |
| 11.50 | 7/16 | 3210 | 3639 | 4154 | 4828 | 5545 | 6045 | 6318 | 7227 | 8099 | 9054 | - | - | - |
| 12.00 | | - | 3804 | 4334 | 5020 | 5753 | 6279 | 6598 | 7459 | 8282 | 9291 | - | - | - |
| 12.50 | 1/2 | - | 4010 | 4479 | 5204 | 5931 | 6482 | 6779 | 7811 | 8817 | 9962 | - | - | - |

HSS TAPER SHANK TWIST DRILLS - EXTRA LONG IS : 7822 - 1975 (Contd.)

| SIZE | | OVERALL LENGTH IN MILLIMETERS | | | | | | | | | | | | |
|------|-------|-------------------------------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|---|
| | | 250 | 275 | 300 | 315 | 325 | 350 | 375 | 400 | 425 | 450 | 475 | 500 | |
| MM | INCH | PRICE EACH | | | | | | | | | | | | |
| 13.0 | | 5315 | 6088 | 6912 | 7503 | 7893 | 8981 | 10079 | 11321 | - | - | - | - | - |
| 13.5 | | 5486 | 6210 | 7098 | 7688 | 8034 | 9152 | 10331 | 11608 | - | - | - | - | - |
| 14.0 | | 5669 | 6396 | 7227 | 7842 | 8163 | 9331 | 10543 | 11829 | - | - | - | - | - |
| 14.5 | 9/16 | 5707 | 6483 | 7336 | 7883 | 8282 | 9511 | 10725 | 12037 | 14153 | 15796 | 17777 | 19935 | |
| 15.0 | | 5835 | 6624 | 7513 | 8051 | 8485 | 9701 | 10874 | 12234 | 14089 | 15987 | 17954 | 20140 | |
| 15.5 | | 5967 | 6778 | 7584 | 8210 | 8600 | 9848 | 11082 | 12402 | 14190 | 16142 | 18110 | 20313 | |
| 16.0 | 5/8 | 6119 | 6893 | 7736 | 8325 | 8754 | 9991 | 11255 | 12615 | 14485 | 16419 | 18332 | 20536 | |
| 16.5 | | 6227 | 6984 | 7883 | 8485 | 8892 | 10175 | 11462 | 12921 | 14704 | 16593 | 18519 | 20663 | |
| 17.0 | | 6360 | 7154 | 7965 | 8585 | 9013 | 10331 | 11615 | 13063 | 14879 | 16799 | 18697 | 20855 | |
| 17.5 | 11/16 | - | - | 8163 | 8750 | 9186 | 10529 | 11814 | 13220 | 15056 | 16993 | 18935 | 21051 | |
| 18.0 | | - | - | 8282 | 8947 | 9331 | 10698 | 12019 | 13460 | 15245 | 17169 | 19131 | 21253 | |
| 18.5 | | - | - | 8415 | 9054 | 9499 | 10793 | 12162 | 13671 | 15439 | 17368 | 19262 | 21460 | |

HSS TAPER SHANK TWIST DRILLS - EXTRA LONG IS : 7822 - 1975 (Contd.)

| SIZE | | OVERALL LENGTH IN MILLIMETERS | | | | | | | | | | | | |
|------|-------|-------------------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | | 250 | 275 | 300 | 315 | 325 | 350 | 375 | 400 | 425 | 450 | 475 | 500 | |
| MM | INCH | PRICE EACH | | | | | | | | | | | | |
| 19.0 | 3/4 | - | - | 8563 | 9186 | 9641 | 10970 | 12350 | 13853 | 15602 | 17564 | 19452 | 21582 | |
| 19.5 | | - | - | 8670 | 9291 | 9736 | 11168 | 12593 | 14135 | 15796 | 17772 | 19685 | 21793 | |
| 20.0 | | - | - | 8817 | 9443 | 9920 | 11297 | 12762 | 14339 | 16110 | 17954 | 19900 | 22059 | |
| 20.5 | | - | - | 8981 | 9614 | 10060 | 11486 | 12921 | 14551 | 16304 | 18262 | 20207 | 22392 | |
| 21.0 | 13/16 | - | - | 9141 | 9499 | 10232 | 11734 | 13188 | 14790 | 16656 | 18573 | 20577 | 22741 | |
| 21.5 | | - | - | 9331 | 9962 | 10402 | 11939 | 13441 | 15072 | 16903 | 18964 | 20949 | 23206 | |
| 22.0 | | - | - | 9535 | 10229 | 10698 | 12162 | 13671 | 15326 | 17169 | 19260 | 21284 | 23573 | |
| 22.5 | 7/8 | - | - | 9787 | 10443 | 10927 | 12369 | 13853 | 15489 | 17466 | 19526 | 21649 | 23965 | |

HSS TAPER SHANK TWIST DRILLS - EXTRA LONG IS : 7822 - 1975 (Contd.)

| SIZE | | OVERALL LENGTH IN MILLIMETERS | | | | | | | | | | | | |
|------|--------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|--|--|
| | | 300 | 315 | 325 | 350 | 375 | 400 | 425 | 450 | 475 | 500 | 525 | | |
| MM | INCH | PRICE EACH | | | | | | | | | | | | |
| 23.0 | | 10245 | 10935 | 11334 | 12777 | 14155 | 15765 | 17718 | 19881 | 21969 | 24314 | - | | |
| 23.5 | | 11255 | - | 12516 | 13717 | 15078 | 16303 | 18319 | 20448 | 22634 | 25060 | - | | |
| 24.0 | 15/16 | 11255 | - | 12516 | 13853 | 15274 | 16875 | 18895 | 21096 | 23249 | 25729 | - | | |
| 24.5 | | 11608 | - | 13063 | 14484 | 15796 | 17450 | 19517 | 21696 | 23931 | 26427 | - | | |
| 25.0 | | - | - | 13538 | 15017 | 16419 | 17987 | 20068 | 22325 | 24594 | 27166 | - | | |
| 25.5 | 1 | - | - | - | 15480 | 16903 | 18523 | 20639 | 22908 | 25257 | 27800 | - | | |
| 26.0 | | - | - | - | 16110 | 17514 | 19124 | 21253 | 23586 | 25908 | 28543 | - | | |
| 26.5 | | - | - | - | 16593 | 18024 | 19657 | 21845 | 24187 | 26520 | 29239 | - | | |
| 27.0 | 1.1/16 | - | - | - | 17169 | 18657 | 20238 | 22423 | 24793 | 27213 | 29922 | - | | |
| 27.5 | | - | - | - | 17718 | 19131 | 20739 | 23019 | 25418 | 27842 | 30595 | - | | |
| 28.0 | | - | - | - | 18262 | 19685 | 21345 | 23586 | 26032 | 29092 | 31336 | - | | |
| 28.5 | 1.1/8 | - | - | - | 18851 | 20267 | 21875 | 24136 | 26664 | 29192 | 31982 | - | | |

HSS TAPER SHANK TWIST DRILLS - EXTRA LONG IS : 7822 - 1975 (Contd.)

| SIZE | | OVERALL LENGTH IN MILLIMETERS | | | | | | | | | | | | |
|------|--------|-------------------------------|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| | | 300 | 315 | 325 | 350 | 375 | 400 | 425 | 450 | 475 | 500 | 525 | | |
| MM | INCH | PRICE EACH | | | | | | | | | | | | |
| 29.0 | | - | - | - | 19380 | 20822 | 22473 | 24745 | 27300 | 29808 | 32706 | - | | |
| 29.5 | | - | - | - | 19916 | 21345 | 23004 | 25334 | 27881 | 30483 | 33422 | - | | |
| 30.0 | 1.3/16 | - | - | - | 20481 | 21920 | 23573 | 25908 | 28510 | 31123 | 34079 | - | | |
| 31.0 | 1.1/4 | - | - | - | 21024 | 22468 | 24144 | 26551 | 29250 | 31955 | 35040 | - | | |
| 32.0 | | - | - | - | 21177 | 22908 | 25334 | 27842 | 30665 | 33422 | 36667 | 39065 | | |
| 33.0 | 1.5/16 | - | - | - | - | - | 26427 | 29082 | 32033 | 34918 | 38269 | 40828 | | |
| 34.0 | | - | - | - | - | - | 27581 | 30317 | 33402 | 36430 | 39915 | 42548 | | |
| 35.0 | 1.3/8 | - | - | - | - | - | 28787 | 31650 | 34778 | 37951 | 41542 | 44270 | | |
| 36.0 | | - | - | - | - | - | 29922 | 32849 | 36123 | 39413 | 43170 | 45920 | | |
| 37.0 | 1.7/16 | - | - | - | - | - | 31062 | 34079 | 37500 | 40895 | 44741 | 47641 | | |
| 38.0 | 1.1/2 | - | - | - | - | - | 32246 | 35436 | 38952 | 42426 | 46438 | 49438 | | |
| 39.0 | | - | - | - | - | - | 33422 | 36989 | 40189 | 43773 | 47826 | 50907 | | |

HSS TAPER SHANK TWIST DRILLS - EXTRA LONG IS : 7822 - 1975 (Contd.)

| SIZE | | OVERALL LENGTH IN MILLIMETERS | | | | | | | |
|------|---------|-------------------------------|-------|-------|-------|-------|-------|------------|-----|
| | | 400 | 425 | 450 | 475 | 500 | 525 | PRICE EACH | |
| MM | INCH | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| 40.0 | | 34820 | 38049 | 41605 | 45254 | 49395 | 52512 | | |
| 41.0 | 1.5/8 | - | - | - | - | 51031 | - | | |
| 42.0 | | - | - | - | - | 53300 | - | | |
| 43.0 | | - | - | - | - | 55665 | - | | |
| 44.0 | | - | - | - | - | 57986 | - | | |
| 45.0 | 1.3/4 | - | - | - | - | 60350 | - | | |
| 46.0 | 1.13/16 | - | - | - | - | 62904 | - | | |
| 47.0 | | - | - | - | - | 65448 | - | | |
| 48.0 | 1.7/8 | - | - | - | - | 67997 | - | | |
| 49.0 | 1.15/16 | - | - | - | - | 70498 | - | | |
| 50.0 | | - | - | - | - | 73338 | - | | |

IMPORTANT NOTES :


- 1) Size 6 mm to 50 mm OAL 200,250,315,400 & 500 mm will be to IS 7822 - 1975. All other size to over standard. 2) For M35 = 40% & M42 = 80% extra
- 3) For non listed intermediate sizes , the higher price of the nearest listed size (INCH or MM) will be applicable.
- 4) ITEMS MARKED * ARE EX-STOCK ITEMS , ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS.50000/- NETT OR MOQ OF 5 NOS PER SIZE WHICHEVER IS HIGHER.


HSS PARALLEL SHANK TWIST DRILLS EXTRA LONG TO OUR STANDARD

| SIZE | | OVERALL LENGTH IN MILLIMETERS | | | | | | | | | | | | | PRICE (Rs.) EACH |
|------|-------|-------------------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------------------|
| | | 50 | 100 | 125 | 150 | 175 | 200 | 225 | 250 | 300 | 350 | | | | |
| MM | INCH | | | | | | | | | | | | | | |
| 0.5 | | 930 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 0.6 | | 869 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 0.8 | | 595 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 1.0 | | - | 575 | - | - | - | - | - | - | - | - | - | - | - | |
| 1.2 | 3/64 | - | 575 | - | - | - | - | - | - | - | - | - | - | - | |
| - | 1/16 | - | - | 711 | 848 | - | - | - | - | - | - | - | - | - | |
| - | 5/64 | - | - | 737 | 887 | - | - | - | - | - | - | - | - | - | |
| 3.0 | 1/8 | - | - | - | 1197 | 1466 | 1660 | 1973 | 2328 | 2903 | 3336 | 3336 | 3336 | 4528 | |
| 3.5 | | - | - | - | 1168 | 1360 | 1749 | 2172 | 2616 | 3036 | 3336 | 3336 | 3336 | 4600 | |
| 4.0 | 5/32 | - | - | - | 1168 | 1360 | 1749 | 2172 | 2616 | 3036 | 3336 | 3336 | 3336 | 4600 | |
| 4.5 | | - | - | - | 1196 | 1466 | 1749 | 2172 | 2616 | 3036 | 3336 | 3336 | 3336 | 4600 | |
| 5.0 | 3/16 | - | - | - | 1196 | 1525 | 1894 | 2337 | 2746 | 3237 | 3539 | 3539 | 3539 | 4827 | |
| 5.5 | 7/32 | - | - | - | 1308 | 1631 | 2024 | 2478 | 2927 | 3327 | 3827 | 3827 | 3827 | 5031 | |
| 6.0 | | - | - | - | 1308 | 1703 | 2084 | 2522 | 3077 | 3561 | 3961 | 3961 | 3961 | 5220 | |
| 6.5 | 1/4 | - | - | - | - | 2132 | 2465 | 2922 | 3081 | 3481 | 3961 | 3961 | 3961 | 5220 | |
| 7.0 | | - | - | - | - | 2365 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 5862 | |
| 7.5 | 9/32 | - | - | - | - | 2408 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 5862 | |
| 8.0 | 5/16 | - | - | - | - | 2527 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 6001 | |
| 8.5 | 11/32 | - | - | - | - | 2608 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 6408 | |
| 9.0 | | - | - | - | - | 2608 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 6408 | |
| 9.5 | 3/8 | - | - | - | - | 2746 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 6612 | |
| 10.0 | | - | - | - | - | 2861 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 6908 | |
| 10.5 | 13/32 | - | - | - | - | 2956 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 7266 | |
| 11.0 | 7/16 | - | - | - | - | 2956 | 2608 | 3065 | 3390 | 3604 | 4059 | 4059 | 4059 | 7498 | |
| 11.5 | | - | - | - | - | - | - | - | 4377 | 4377 | 5688 | 5688 | 5688 | 7498 | |
| 12.0 | 15/32 | - | - | - | - | - | - | - | 4595 | 4595 | 6031 | 6031 | 6031 | 7692 | |
| 12.5 | 1/2 | - | - | - | - | - | - | - | 4739 | 4739 | 6227 | 6227 | 6227 | 8204 | |

IMPORTANT NOTES :

- 1) Other details will be maintained as per IS: 7823-1983. 2) For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable .
- 3) ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50000/- NETT OR 15 NOS, PER SIZE WHICHEVER IS HIGHER. 4) For M35 = 40% & M42 = 80% extra


PANTHER
Quicker • Sharper • More Powerful



NINJA
SHARP HSS HAZARD RESISTANT


**HSS - PARALLEL SHANK
TWIST DRILLS IS : 5101**

| SIZE | | PANTHER PRICE (Rs.) 10 Nos. | NINJA PRICE (Rs.) 10 Nos. | SIZE | | PANTHER PRICE (Rs.) 10 Nos. | NINJA PRICE (Rs.) 10 Nos. |
|------|-------|--------------------------------------|------------------------------------|-------|-------|--------------------------------------|------------------------------------|
| MM | INCH | | | MM | INCH | | |
| 2.00 | | 806 | - | 6.35 | 1/4 | 3521 | 4696 |
| 2.10 | | 806 | - | 6.50 | | 4408 | 5880 |
| 2.20 | | 806 | - | 6.60 | | 4408 | 5880 |
| 2.30 | | 806 | - | 6.70 | | 4408 | 5880 |
| 2.40 | | 806 | - | 6.75 | 17/64 | 4408 | 5880 |
| 2.50 | | 806 | - | 6.80 | | 4408 | 5880 |
| 2.60 | | 806 | - | 7.00 | | 4826 | 6435 |
| 2.70 | | 806 | - | 7.14 | 9/32 | 4826 | 6435 |
| 2.80 | | 806 | - | 7.20 | | 4826 | 6435 |
| 2.90 | | 806 | - | 7.40 | | 5094 | 6792 |
| 3.00 | | 885 | 1178 | 7.50 | | 5094 | 6792 |
| 3.10 | | 1053 | 1405 | 7.60 | | 5515 | 7352 |
| 3.17 | 1/8 | 1053 | 1405 | 7.80 | | 5515 | 7352 |
| 3.20 | | 1092 | 1452 | 7.94 | 5/16 | 6052 | 8072 |
| 3.30 | | 1092 | 1452 | 8.00 | | 6052 | 8072 |
| 3.40 | | 1092 | 1452 | 8.10 | | 6052 | 8072 |
| 3.50 | | 1092 | 1452 | 8.20 | | 6052 | 8072 |
| 3.57 | 9/64 | 1092 | 1452 | 8.30 | | 7336 | 9782 |
| 3.60 | | 1540 | 2055 | 8.33 | 21/64 | 7336 | 9782 |
| 3.70 | | 1540 | 2055 | 8.50 | | 7336 | 9782 |
| 3.80 | | 1540 | 2055 | 8.60 | | 7336 | 9782 |
| 3.90 | | 1540 | 2055 | 8.70 | | 7336 | 9782 |
| 3.97 | 5/32 | 1540 | 2055 | 8.80 | | 7729 | 10303 |
| 4.00 | | 1540 | 2055 | 9.00 | | 7729 | 10303 |
| 4.10 | | 1870 | 2491 | 9.30 | | 8060 | 10751 |
| 4.20 | | 1870 | 2491 | 9.40 | | 8060 | 10751 |
| 4.30 | | 1870 | 2491 | 9.50 | | 8060 | 10751 |
| 4.37 | 11/64 | 1870 | 3271 | 9.52 | 3/8 | 9140 | 12185 |
| 4.40 | | 1870 | 2491 | 9.70 | | 9140 | 12185 |
| 4.50 | | 2455 | 3271 | 9.80 | | 9140 | 12185 |
| 4.60 | | 2455 | 3271 | 10.00 | | 10230 | 13641 |
| 4.76 | 3/16 | 2455 | 3271 | 10.20 | | 10230 | 13641 |
| 4.80 | | 2455 | 3271 | 10.30 | | 11089 | 14781 |
| 5.00 | | 2665 | 3552 | 10.32 | 13/32 | 11089 | 14781 |
| 5.10 | | 2665 | 3552 | 10.40 | | 11089 | 14781 |
| 5.16 | 13/64 | 2665 | 3552 | 10.50 | | 11089 | 14781 |
| 5.20 | | 2665 | 3552 | 10.70 | | 11738 | 15651 |
| 5.30 | | 2874 | 3832 | 11.00 | | 11738 | 15651 |
| 5.40 | | 2874 | 3832 | 11.11 | 7/16 | 13102 | 17470 |
| 5.50 | | 2874 | 3832 | 11.50 | | 13819 | 18425 |
| 5.56 | 7/32 | 2874 | 3832 | 11.80 | | 13819 | 18425 |
| 5.60 | | 2874 | 3832 | 12.00 | | 14759 | 19677 |
| 5.80 | | 3234 | 4312 | 12.50 | | 15655 | 20872 |
| 6.00 | | 3234 | 4312 | 12.70 | 1/2 | 16526 | 22038 |
| 6.10 | | 3521 | 4696 | 12.80 | | 16671 | 22229 |
| 6.20 | | 3521 | 4696 | 13.00 | | 16671 | 22229 |
| 6.30 | | 3521 | 4696 | | | | |

MINIMUM ORDER VALUE OF RS. 50000/- NETT OR MOQ 50 NOS. PER SIZE WHICHEVER IS HIGHER.

IMPORTANT NOTE :
All sizes to be ordered in multiples of 10 only.


PANTHER
Quicker • Sharper • More Powerful


NINJA
SHARP HSS HAZARD RESISTANT

**HSS - TAPER SHANK
TWIST DRILLS IS : 5103**

| SIZE | | PANTHER PRICE (Rs.) EACH | NINJA PRICE (Rs.) EACH | SIZE | | PANTHER PRICE (Rs.) EACH | NINJA PRICE (Rs.) EACH |
|--------|-------|-----------------------------------|---------------------------------|--------|--------|-----------------------------------|---------------------------------|
| MM | INCH | | | MM | INCH | | |
| 9.52 | 3/8 | 1425 | 1898 | 16.67 | 21/32 | 4094 | 5462 |
| 10.00 | | 1520 | 2028 | 16.75 | | 4094 | 5462 |
| 10.20 | | 1659 | 2211 | 17.00★ | | 4094 | 5462 |
| 10.32 | 13/32 | 1605 | 2138 | 17.25 | | 4163 | 5550 |
| 10.50 | | 1965 | 2622 | 17.46 | 11/16★ | 4163 | 5550 |
| 11.00 | | 2040 | 2718 | 17.50★ | | 4321 | 5762 |
| 11.50 | | 2105 | 2807 | 18.00★ | | 4554 | 6072 |
| 12.00★ | | 2128 | 2835 | 18.25 | | 4554 | 6072 |
| 12.50 | | 2128 | 2835 | 18.26 | 23/32 | 4554 | 6072 |
| 12.70 | 1/2★ | 2128 | 2835 | 18.50★ | | 4554 | 6072 |
| 13.00★ | | 2959 | 3945 | 18.75 | | 4606 | 6143 |
| 13.20 | | 3089 | 4117 | 19.00★ | | 4606 | 6143 |
| 13.49 | 17/32 | 3089 | 4117 | 19.05 | 3/4★ | 4606 | 6143 |
| 13.50★ | | 3306 | 4408 | 19.25 | | 4840 | 6453 |
| 13.80 | | 3306 | 4408 | 19.50★ | | 4840 | 6453 |
| 13.89 | 35/64 | 3306 | 4408 | 19.84 | 25/32★ | 4840 | 6453 |
| 14.00★ | | 3306 | 4408 | 20.00★ | | 5204 | 6939 |
| 14.20 | | 3555 | 4739 | 20.24 | 51/64 | 5265 | 7024 |
| 14.25 | | 3555 | 4739 | 20.25 | | 5265 | 7024 |
| 14.29 | 9/16★ | 3555 | 4739 | 20.50★ | | 5265 | 7024 |
| 14.50★ | | 3693 | 4922 | 20.64 | 13/16 | 5265 | 7024 |
| 14.75 | | 3693 | 4922 | 21.00★ | | 5492 | 7324 |
| 15.00★ | | 3693 | 4922 | 21.50★ | | 5803 | 7737 |
| 15.08 | 19/32 | 3693 | 4922 | 22.00★ | | 5912 | 7881 |
| 15.25 | | 3745 | 4993 | 22.22 | 7/8 | 5912 | 7881 |
| 15.50★ | | 3745 | 4993 | 22.50★ | | 6441 | 8589 |
| 15.87 | 5/8★ | 3745 | 4993 | 23.00★ | | 6569 | 8756 |
| 16.00★ | | 3857 | 5141 | 23.50★ | | 7819 | 10422 |
| 16.25 | | 3857 | 5141 | 24.00★ | | 8047 | 10730 |
| 16.27 | 41/64 | 3857 | 5141 | 24.50 | | 8183 | 10913 |
| 16.30 | | 4094 | 5462 | 25.00★ | 63/64 | 8552 | 11402 |
| 16.50★ | | 4094 | 5462 | 25.40 | 1★ | 8665 | 11555 |

ITEMS MARKED ★ (ONLY IN RH) ARE EX-STOCK ITEMS. ALL REMAINING ITEMS IN (RH) WILL ATTRACT MINIMUM ORDER VALUE - OF RS. 50000/- NETT OR MOQ 5 NOS PER SIZE WHICHEVER IS HIGHER.

HSS PARALLEL HAND REAMERS, HSS LONG FLUTED MACHINE REAMERS AND HSS PARALLEL/TAPER SHANK CHUCKING REAMERS

| SIZE | | HAND REAMERS IS : 5444 | LONG FLUTED MACHINE REAMERS IS : 5445 | CHUCKING REAMERS | |
|-------|--------|------------------------|---------------------------------------|------------------------|---------------------|
| MM | INCH | | | PARALLEL SHANK IS:5446 | TAPER SHANK IS:5447 |
| 3.00 | | 1454 | 1454 | 1453 | 1454 |
| 3.17 | 1/8 | 1454 | 1454 | 1454 | 1454 |
| 3.50 | | 1454 | 1454 | 1454 | 1454 |
| 3.97 | 5/32 | 1454 | 1454 | 1454 | 1454 |
| 4.00 | | 1454 | 1454 | 1454 | 1454 |
| 4.50 | | 1454 | 1454 | 1454 | 1454 |
| 4.76 | 3/16 | 1454 | 1454 | 1454 | 1454 |
| 5.00 | | 1454 | 1454 | 1454 | 1454 |
| 5.50 | | 1454 | 1454 | 1454 | 1454 |
| 5.56 | 7/32 | 1454 | 1454 | 1454 | 1454 |
| 6.00 | | 1688 | 1688 | 1688 | 1688 |
| 6.35 | 1/4 | 1688 | 1688 | 1688 | 1688 |
| 7.00 | | 1690 | 1690 | 1690 | 1690 |
| 7.14 | 9/32 | 1690 | 1690 | 1690 | 1690 |
| 7.94 | 5/16 | 1919 | 1919 | 1919 | 1919 |
| 8.00 | | 1919 | 1919 | 1919 | 1919 |
| 8.73 | 11/32 | 2001 | 2001 | 2001 | 2001 |
| 9.00 | | 2001 | 2001 | 2001 | 2001 |
| 9.12 | 23/64 | 2001 | 2001 | 2001 | 2001 |
| 9.52 | 3/8 | 2181 | 2181 | 2181 | 2181 |
| 9.92 | 25/64 | 2417 | 2417 | 2417 | 2417 |
| 10.00 | | 2417 | 2417 | 2417 | 2417 |
| 10.32 | 13/32 | 2417 | 2417 | 2417 | 2417 |
| 11.00 | | 2713 | 2713 | 2713 | 2713 |
| 11.11 | 7/16 | 2713 | 2713 | 2713 | 2713 |
| 11.91 | 15/32 | 2822 | 2822 | 2822 | 2822 |
| 12.00 | | 2822 | 2822 | 2822 | 2822 |
| 12.70 | 1/2 | 2928 | 2928 | 2928 | 2928 |
| 13.00 | | 3562 | 3562 | 3562 | 3562 |
| 13.49 | 17/32 | 3562 | 3562 | 3562 | 3562 |
| 14.00 | | 3562 | 3562 | 3562 | 3562 |
| 14.29 | 9/16 | 3562 | 3562 | 3562 | 3562 |
| 15.00 | | 3586 | 3586 | 3586 | 3586 |
| 15.08 | 19/32 | 3586 | 3586 | 3586 | 3586 |
| 15.87 | 5/8 | 3586 | 3586 | 3586 | 3586 |
| 16.00 | | 3586 | 3586 | 3586 | 3586 |
| 16.67 | 21/32 | 4128 | 4128 | - | 4128 |
| 17.00 | | 4128 | 4128 | - | 4128 |
| 17.46 | 11/16 | 4128 | 4128 | - | 4128 |
| 18.00 | | 4423 | 4423 | - | 4423 |
| 18.26 | 23/32 | 4699 | 4699 | - | 4699 |
| 19.00 | | 4699 | 4699 | - | 4699 |
| 19.05 | 3/4 | 4699 | 4699 | - | 4699 |
| 20.00 | | 5240 | 5240 | - | 5240 |
| 20.64 | 13/16 | 5335 | 5335 | - | 5335 |
| 21.00 | | 5929 | 5929 | - | 5929 |
| 22.00 | | 5929 | 5929 | - | 5929 |
| 22.22 | 7/8 | 5929 | 5929 | - | 5929 |
| 23.00 | | 6921 | 6921 | - | 6921 |
| 23.81 | 15/16 | 7667 | 7667 | - | 7667 |
| 24.00 | | 7667 | 7667 | - | 7667 |
| 25.00 | | 7685 | 7685 | - | 7685 |
| 25.40 | 1 | 7825 | 7825 | - | 7825 |
| 26.00 | | 9496 | 9496 | - | 9496 |
| 26.99 | 1.1/16 | 10860 | 10860 | - | 10860 |
| 27.00 | | 10860 | 10860 | - | 10860 |
| 28.00 | | 10860 | 10860 | - | 10860 |
| 28.57 | 1.1/8 | 10860 | 10860 | - | 10860 |
| 29.00 | | 11521 | 11521 | - | 11521 |
| 30.00 | | 12432 | 12432 | - | 12432 |
| 30.16 | 1.3/16 | 12432 | 12432 | - | 12432 |
| 31.00 | | 13729 | 13729 | - | 13729 |
| 31.75 | 1.1/4 | 13729 | 13729 | - | 13729 |
| 32.00 | | 13729 | 13729 | - | 13729 |
| 33.00 | | 15591 | 15591 | - | 15591 |
| 33.34 | 1.5/16 | 15591 | 15591 | - | 15591 |
| 34.00 | | 17515 | 17515 | - | 17515 |
| 34.92 | 1.3/8 | 19166 | 19166 | - | 19166 |
| 35.00 | | 19166 | 19166 | - | 19166 |
| 36.00 | | 19166 | 19166 | - | 19166 |
| 36.51 | 1.7/16 | 19306 | 19306 | - | 19306 |

HSS PARALLEL HAND REAMERS, HSS LONG FLUTED MACHINE REAMERS AND HSS TAPER SHANK CHUCKING REAMERS

| SIZE | | HAND REAMERS IS : 5444 | LONG FLUTED MACHINE REAMERS IS:5445 | CHUCKING REAMERS TAPER SHANK IS:5447 |
|-------|---------|------------------------|-------------------------------------|--------------------------------------|
| MM | INCH | | | |
| 37.00 | | 21037 | 21037 | 21037 |
| 38.00 | | 21037 | 21037 | 21037 |
| 38.10 | 1.1/2 | 21037 | 21037 | 21037 |
| 39.00 | | 23248 | 23248 | 23248 |
| 39.69 | 1.9/16 | 25411 | 25411 | 25411 |
| 40.00 | | 25411 | 25411 | 25411 |
| 41.00 | | 25627 | 25627 | 25627 |
| 41.27 | 1.5/8 | 30202 | 30202 | 30202 |
| 42.00 | | 30202 | 30202 | 30202 |
| 42.86 | 1.11/16 | 30202 | 30202 | 30202 |
| 43.00 | | 30202 | 30202 | 30202 |
| 44.00 | | 30202 | 30202 | 30202 |
| 44.45 | 1.3/4 | 30202 | 30202 | 30202 |
| 45.00 | | 35394 | 35394 | 35394 |
| 46.00 | | 35394 | 35394 | 35394 |
| 47.00 | | 38216 | 38216 | 38216 |
| 47.62 | 1.7/8 | 41044 | 41044 | 41044 |
| 48.00 | | 41044 | 41044 | 41044 |
| 49.00 | | 41044 | 41044 | 41044 |
| 49.21 | 1.15/16 | 41044 | 41044 | 41044 |
| 50.00 | | 41044 | 41044 | 41044 |
| 50.80 | 2 | 41044 | 41044 | 41044 |
| 51.00 | | 41044 | 41044 | 41044 |
| 52.00 | | 48923 | 48923 | - |
| 52.39 | 2.1/16 | 48923 | 48923 | - |
| 53.00 | | 48923 | 48923 | - |
| 53.97 | 2.1/8 | 48923 | 48923 | - |
| 54.00 | | 48923 | 48923 | - |
| 55.00 | | 56808 | 56808 | - |
| 55.56 | 2.3/16 | 56808 | 56808 | - |
| 56.00 | | 56808 | 56808 | - |
| 57.00 | | 56808 | 56808 | - |
| 57.15 | 2.1/4 | 56808 | 56808 | - |
| 58.00 | | 60782 | 60782 | - |
| 58.74 | 2.5/16 | 60782 | 60782 | - |
| 59.00 | | 60782 | 60782 | - |
| 60.00 | | 72115 | 72115 | - |
| 60.32 | 2.3/8 | 72115 | 72115 | - |
| 61.00 | | 72115 | 72115 | - |
| 61.91 | 2.7/16 | 72115 | 72115 | - |
| 62.00 | | 72115 | 72115 | - |
| 63.00 | | 72115 | 72115 | - |
| 63.50 | 2.1/2 | 72115 | 72115 | - |
| 64.00 | | 72115 | 72115 | - |
| 65.00 | | - | 87070 | - |
| 65.09 | 2.9/16 | 87070 | 87070 | - |
| 66.00 | | - | 90008 | - |
| 66.67 | 2.5/8 | 90008 | 90008 | - |
| 67.00 | | 90008 | 90008 | - |
| 68.00 | | - | 96492 | - |
| 68.26 | 2.11/16 | 96492 | 96492 | - |
| 69.00 | | - | 96492 | - |
| 69.85 | 2.3/4 | 96492 | 96492 | - |
| 70.00 | | - | 96492 | - |
| 71.00 | | 96492 | 96492 | - |
| 71.44 | 2.13/16 | 101381 | 101381 | - |
| 72.00 | | - | 117877 | - |
| 73.00 | | - | 117877 | - |
| 73.02 | 2.7/8 | 117877 | 117877 | - |
| 74.00 | | - | 117877 | - |
| 74.61 | 2.15/16 | 117877 | 117877 | - |
| 75.00 | | - | 123781 | - |
| 76.00 | | - | 123781 | - |
| 76.20 | 3 | 123781 | 123781 | - |

ITEM MARKED ★ ARE EX-STOCK ITEMS. ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS 50000/- NETT OR MOQ OF 5 NOS. PER SIZE WHICHEVER IS HIGHER.
 For M35 = 40% & M42 = 80% extra
IMPORTANT NOTES :
 For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.

HSS TAPER SHANK EXTRA LONG MACHINE REAMERS

| SIZE MM | PRICE (Rs.) EACH |
|----------------|---------------------|
| 8 x 125 x 200 | 2777 |
| 8 x 175 x 250 | 2969 |
| 8 x 200 x 300 | 3256 |
| 9 x 125 x 200 | 2711 |
| 9 x 175 x 250 | 3121 |
| 9 x 225 x 300 | 4083 |
| 10 x 125 x 200 | 3489 |
| 10 x 175 x 250 | 3721 |
| 10 x 200 x 300 | 3950 |
| 10 x 300 x 400 | 4222 |
| 12 x 160 x 250 | 4134 |
| 12 x 200 x 300 | 4357 |
| 13 x 200 x 300 | 4983 |
| 14 x 160 x 250 | 4644 |
| 14 x 200 x 300 | 5454 |
| 15 x 200 x 300 | 5538 |
| 15 x 300 x 400 | 6197 |
| 16 x 200 x 300 | 5538 |
| 16 x 300 x 400 | 6197 |
| 17 x 200 x 300 | 6250 |
| 18 x 200 x 300 | 6869 |
| 19 x 200 x 300 | 7296 |
| 20 x 200 x 300 | 8098 |
| 20 x 300 x 400 | 9147 |
| 22 x 200 x 300 | 9194 |
| 25 x 200 x 325 | 11938 |
| 25 x 275 x 400 | 13407 |
| 26 x 275 x 400 | 16578 |
| 28 x 275 x 400 | 19041 |

HSS TAPER SHANK EXTRA LONG MACHINE REAMERS

| SIZE INCH MM MM | PRICE (Rs.) EACH |
|--------------------|---------------------|
| 5/16 x 125 x 200 | 2777 |
| 5/16 x 175 x 250 | 2969 |
| 5/16 x 200 x 300 | 3256 |
| 3/8 x 125 x 200 | 3489 |
| 3/8 x 175 x 250 | 3721 |
| 3/8 x 200 x 300 | 3950 |
| 7/16 x 160 x 250 | 4134 |
| 7/16 x 200 x 300 | 4357 |
| 1/2 x 125 x 200 | 4665 |
| 1/2 x 200 x 300 | 4713 |
| 9/16 x 200 x 300 | 5538 |
| 9/16 x 250 x 350 | 5869 |
| 5/8 x 200 x 300 | 5538 |
| 5/8 x 250 x 350 | 5926 |
| 5/8 x 300 x 400 | 6197 |
| 11/16 x 200 x 300 | 6875 |
| 3/4 x 200 x 300 | 7296 |
| 3/4 x 300 x 400 | 7767 |
| 13/16 x 200 x 300 | 9194 |
| 7/8 x 200 x 300 | 10893 |
| 7/8 x 300 x 400 | 11127 |
| 1 x 200 x 325 | 11938 |
| 1 x 275 x 400 | 13407 |
| 1.1/8 x 275 x 400 | 20370 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For **M35 = 40% & M42 = 80% extra**

IMPORTANT NOTES :

For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.

**HSS TAPER PIN REAMERS (TAPER 1:50)
HAND IS 5881 - 1984, MACHINE IS : 5918 - 1984**

| NOMINAL DIA MM | PRICE (Rs.) EACH | NOMINAL DIA MM | PRICE (Rs.) EACH |
|----------------------|------------------------|----------------------|------------------------|
| 3 | 3118 | 16 | 7063 |
| 4 | 3118 | 20 | 10986 |
| 5 | 3118 | 25 | 11658 |
| 6 | 3118 | 30 | 15686 |
| 8 | 4222 | 32 | 17235 |
| 10 | 4682 | 40 | 30819 |
| 12 | 5653 | 50 | 53415 |
| 14 | 6346 | | |

**HSS TAPER PIN REAMERS (TAPER 1:48)
HAND/MACHINE - BS : 122 : 12 : 1964**

| NOMINAL DIA INCH | PRICE (Rs.) EACH | NOMINAL DIA INCH | PRICE (Rs.) EACH |
|------------------------|------------------------|------------------------|------------------------|
| 3/16 | 2906 | 13/32 | 4544 |
| 7/32 | 2906 | 7/16 | 4679 |
| 1/4 | 2906 | 1/2 | 5289 |
| 9/32 | 3180 | 9/16 | 6114 |
| 5/16 | 3520 | 5/8 | 6803 |
| 11/32 | 3973 | 3/4 | 8573 |
| 3/8 | 4014 | 7/8 | 10579 |

ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 35,000/- NETT MOQ OF 15 NOS. PER SIZE WHICHEVER IS HIGHER.

For **M35 = 40% & M42 = 80% extra**

R.H. Cutting with straight flutes will be supplied as standard for hand taper pin reamer.

R.H. Cutting with L.H. helical flutes will be supplied as standard for Machine Taper Pin Reamer.

HSS MACHINE JIG REAMERS IS : 11002-1989

| SIZE MM | PRICE (Rs.) EACH | SIZE MM | PRICE (Rs.) EACH |
|------------|---------------------|------------|---------------------|
| 10 | 3103 | 33 | 18953 |
| 11 | 3103 | 35 | 21826 |
| 12 | 3555 | 36 | 23415 |
| 13 | 4224 | 39 | 25035 |
| 14 | 4224 | 40 | 28779 |
| 15 | 4645 | 41 | 28779 |
| 16 | 4645 | 43 | 32152 |
| 17 | 5362 | 44 | 35328 |
| 19 | 6007 | 45 | 38363 |
| 20 | 6551 | 46 | 38363 |
| 22 | 7557 | 47 | 41824 |
| 23 | 7557 | 48 | 45486 |
| 24 | 9732 | 49 | 45486 |
| 25 | 10546 | 50 | 50569 |
| 27 | 11788 | - | - |
| 28 | 12810 | - | - |
| 30 | 13941 | - | - |
| 32 | 16140 | - | - |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For **M35 = 40% & M42 = 80% extra**

IMPORTANT NOTES :

For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.

HSS SOCKET REAMERS :
PARALLEL SHANK - IS : 5882 / TAPER SHANK - IS 5907.
***TYPE 'A' (ROUGHING), TYPE 'B' (PRE - FINISHING) ,**
TYPE 'C' (FINISHING)

| MORSE TAPER NO | PARALLEL SHANK PRICE (Rs) EACH | TAPER SHANK PRICE (Rs) EACH |
|----------------|--------------------------------|-----------------------------|
| 0 | 3334 | 3958 |
| 1 | 3670 | 4174 |
| 2 | 5111 | 6196 |
| 3 | 7425 | 9289 |
| 4 | 12284 | 14632 |
| 5 | 25035 | 26893 |
| 6 | 44178 | 61598 |

* Type required to be specified in order.

HSS MACHINE BRIDGE REAMERS - IS 5919

| SIZE MM | PRICE (Rs.) EACH | SIZE MM | PRICE (Rs.) EACH | SIZE MM | PRICE (Rs.) EACH |
|---------|------------------|---------|------------------|---------|------------------|
| 11 | 3688 | 20 | 8304 | 31 | 15876 |
| 11.5 | 4309 | 21 | 9226 | 32 | 15876 |
| 12 | 4309 | 21.5 | 9226 | 33 | 17081 |
| 13 | 4699 | 22 | 9226 | 35 | 18323 |
| 13.5 | 4699 | 23 | 10063 | 36 | 19556 |
| 14 | 4699 | 23.5 | 10063 | 37 | 20845 |
| 15 | 5454 | 25.0 | 10944 | 40 | 33144 |
| 17 | 6728 | 27 | 12336 | 43 | 39228 |
| 17.5 | 6728 | 28 | 13351 | 49 | 53354 |
| 19 | 7557 | 30 | 14413 | - | - |

HSS MACHINE BRIDGE REAMERS BS: 122 (Part 2) : 1964

| SIZE INCH | PRICE (Rs.) EACH | SIZE INCH | PRICE (Rs.) EACH | SIZE INCH | PRICE (Rs.) EACH |
|-----------|------------------|-----------|------------------|-----------|------------------|
| 7/16 | 3688 | 13/16 | 8027 | 1.3/16 | 13837 |
| 1/2 | 3988 | 7/8 | 9226 | 1.1/4 | 15435 |
| 9/16 | 4699 | 15/16 | 10063 | 1.5/16 | 16339 |
| 5/8 | 5454 | 1 | 10944 | 1.3/8 | 17515 |
| 11/16 | 6728 | 1.1/16 | 11908 | 1.7/16 | 18721 |
| 3/4 | 7557 | 1.1/8 | 12794 | 1.1/2 | 20845 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

IMPORTANT NOTES :

For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.

HSS SHELL REAMERS IS : 5926 : 1970
(WITH 1: 30 TAPER HOLE)

| SIZE MM | PRICE (Rs.) EACH | SIZE MM | PRICE (Rs.) EACH | SIZE MM | PRICE (Rs.) EACH |
|---------|------------------|---------|------------------|---------|------------------|
| 21 | 4784 | 42 | 9039 | 66 | 20467 |
| 22 | 4784 | 43 | 9039 | 67 | 22455 |
| 23 | 4784 | 44 | 9169 | 68 | 22455 |
| 24 | 4784 | 45 | 9564 | 70 | 22455 |
| 25 | 4784 | 46 | 9564 | 72 | 24970 |
| 26 | 5071 | 47 | 10018 | 73 | 24970 |
| 27 | 5071 | 49 | 10288 | 76 | 27401 |
| 28 | 5439 | 50 | 10708 | 79 | 30741 |
| 30 | 5726 | 52 | 11859 | 80 | 33695 |
| 32 | 5995 | 54 | 11859 | 82 | 33695 |
| 33 | 6294 | 56 | 13013 | 85 | 36344 |
| 35 | 6623 | 57 | 13013 | 89 | 38930 |
| 36 | 6899 | 58 | 14589 | 91 | 46045 |
| 38 | 7265 | 60 | 14589 | 92 | 46045 |
| 39 | 7627 | 62 | 17628 | 95 | 48132 |
| 40 | 7627 | 63 | 17628 | 98 | 55568 |
| 41 | 7966 | 65 | 20467 | 99 | 61512 |
| | | | | 100 | 61512 |

HSS COUNTERSINKS WITH TAPER SHANK
BS: 122 (PART 2): 1964 (INCLUDED ANGLE 60 OR 90)

| BODY DIA INCH | PRICE (Rs.) EACH | BODY DIA INCH | PRICE (Rs.) EACH | BODY DIA INCH | PRICE (Rs.) EACH |
|---------------|------------------|---------------|------------------|---------------|------------------|
| 1/2★ | 2550 | 1.1/8★ | 7879 | 2 | 23675 |
| 5/8★ | 3387 | 1.1/4 | 9915 | 2.1/4 | 26840 |
| 3/4 | 3836 | 1.3/8 | 11593 | 2.1/2 | 33309 |
| 7/8 | 4844 | 1.1/2 | 13739 | 2.3/4 | 39315 |
| 1★ | 6096 | 1.3/4 | 20316 | 3 | 47547 |

HSS TAPER SHANK COUNTERBORES IS : 5710 - 1988

| CUTTER DIA MM | PRICE (Rs.) EACH | CUTTER DIA MM | PRICE (Rs.) EACH |
|---------------|------------------|---------------|------------------|
| 13.5 | 3851 | 34 | 18283 |
| 14.5 | 4328 | 36 | 19871 |
| 16.5 | 4970 | 37 | 20707 |
| 17.5 | 5346 | 39 | 22435 |
| 19.5 | 6313 | 41 | 24329 |
| 20.0 | 6616 | 43 | 25154 |
| 22.0 | 7574 | 46 | 28636 |
| 23.0 | 8693 | 48 | 31088 |
| 25.0 | 10524 | 51 | 35090 |
| 26.0 | 11662 | 53 | 38123 |
| 28.0 | 13024 | 55 | 41966 |
| 29.0 | 13729 | 57 | 46106 |
| 31.0 | 14967 | 59 | 51090 |
| 33.0 | 17148 | 61 | 56921 |

Counterbores will be supplied without pilots and grub screws. Pilot holes and grub screw holes, will however, be provided.

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

IMPORTANT NOTES :

For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.

**HSS TAPER SHANK COUNTER BORES
BS : 122 (PART 2) : 1964**

| CONTERBORE DIA INCH | PRICE (Rs.) EACH | CONTERBORE DIA INCH | PRICE (Rs.) EACH |
|---------------------|------------------|---------------------|------------------|
| 1/2 | 3398 | 1.1/8 | 13024 |
| 9/16 | 4224 | 1.1/4 | 14967 |
| 5/8 | 4716 | 1.3/8 | 18283 |
| 11/16 | 5346 | 1.1/2 | 21238 |
| 3/4 | 6007 | 1.5/8 | 24343 |
| 13/16 | 6659 | 1.3/4 | 27580 |
| 7/8 | 7574 | 1.7/8 | 30636 |
| 15/16 | 8900 | 2 | 33826 |
| 1 | 10524 | - | - |

IMPORTANT NOTES :

- Counterbores upto and including 1/2" dia. Are supplied without integrated pilots, the diameter of which should be specified at the time of order.
- Counterbores above 1/2" dia. Will be provided with pilot holes and grub screw holes. The pilots & grub screws will not be supplied by us.
- For non listed intermediate sizes, the higher price of the nearest listed size (INCH or MM) will be applicable.

HSS CYLINDRICAL CUTTER IS : 6309

| DIA MM | BORE MM | WIDTH MM | PRICE (Rs.) EACH | DIA MM | BORE MM | WIDTH MM | PRICE (Rs.) EACH |
|--------|---------|----------|------------------|--------|---------|----------|------------------|
| 40 | 16 | 20 | 3490 | 80 | 32 | 80 | 16929 |
| 40 | 16 | 32 | 4364 | 80 | 32 | 100 | 19489 |
| 40 | 16 | 50 | 5430 | 100 | 40 | 40 | 14069 |
| 40 | 16 | 70 | 7281 | 100 | 40 | 70 | 21308 |
| 50 | 22 | 25 | 4471 | 100 | 40 | 90 | 26400 |
| 50 | 22 | 40 | 5294 | 100 | 40 | 110 | 37089 |
| 50 | 22 | 63 | 6953 | 100 | 40 | 125 | 45179 |
| 50 | 22 | 80 | 9000 | 125 | 50 | 50 | 31757 |
| 63 | 27 | 32 | 6369 | 125 | 50 | 80 | 45048 |
| 63 | 27 | 50 | 8029 | 125 | 50 | 110 | 60625 |
| 63 | 27 | 70 | 10570 | 125 | 50 | 125 | 67820 |
| 63 | 27 | 90 | 12407 | 125 | 50 | 140 | 75435 |
| 80 | 32 | 36 | 9000 | 160 | 60 | 125 | 112846 |
| 80 | 32 | 63 | 14306 | - | - | - | - |

HSS HELICAL CYLINDRICAL CUTTERS BS: 122 (PART 1) : 1953

PRICE (Rs.) EACH

| LENGTH OF CUTTER INCH | DIAMETER OF CUTTER | | |
|-----------------------|--------------------|-------|-------|
| | 3 | 4 | 5 |
| 2 | 15881 | 23317 | 38887 |
| 3 | 20103 | 31190 | 52385 |
| 4 | 27032 | 39721 | 65925 |
| 5 | 39055 | 57462 | 79256 |
| 6 | 49523 | 67617 | 92920 |

IMPORTANT NOTE

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

**HSS HIGH POWER CYLINDRICAL CUTTERS
BS: 122 (PART 1) : 1953**

PRICE (Rs.) EACH

| LENGTH OF CUTTER INCH | DIAMETER OF CUTTER | | | | |
|-----------------------|--------------------|-------|-------|-------|-------|
| | 2.1/2 | 3 | 3.1/2 | 4 | 4.1/2 |
| 1 | 5690 | 7177 | 7953 | 10055 | 14499 |
| 2 | 8426 | 11045 | 13262 | 17605 | 24347 |
| 3 | 11211 | 15001 | 18516 | 25132 | 34391 |
| 4 | 13967 | 19067 | 23837 | 32031 | 45048 |
| 5 | 16841 | 26814 | 35057 | 44472 | 55460 |
| 6 | 19708 | 39842 | 41715 | 51991 | 65911 |
| 7 | 22485 | 39842 | 48456 | 61983 | 77177 |
| 8 | 26329 | 45510 | 55199 | 70604 | 86967 |

IMPORTANT NOTE

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS SIDE & FACE CUTTERS - IS : 6308 - 1982

PRICE (Rs.) EACH

| DIA MM | BORE MM | WIDTH MM | STRAIGHT TEETH TYPE "B" | STAGGERED TEETH TYPE "A" |
|--------|---------|----------|-------------------------|--------------------------|
| 50 | 16 | 5 | 4092 | 5090 |
| | | 6 | 4251 | 5294 |
| | | 8 | 4364 | 5441 |
| | | 10 | 4635 | 5792 |
| 63 | 22 | 6 | 5013 | 6479 |
| | | 8 | 5294 | 7068 |
| | | 10 | 5761 | 7281 |
| | | 12 | 6009 | 7845 |
| | | 14 | 6190 | 8417 |
| | | 16 | 6493 | 9079 |
| 80 | 27 | 18 | 6925 | 9348 |
| | | 6 | 5488 | 6890 |
| | | 8 | 6083 | 7495 |
| | | 10 | 6493 | 8578 |
| | | 12 | 6925 | 9079 |
| | | 14 | 7364 | 9740 |
| 100 | 32 | 16 | 7705 | 9938 |
| | | 18 | 8578 | 11255 |
| | | 20 | 8949 | 11805 |
| | | 6 | 7845 | 9514 |
| 100 | ★★ | 8 | 8388 | 10182 |
| | | 10 | 9272 | 10912 |
| 100 | 32 | 12 | 9938 | 12130 |
| | | 14 | 10529 | 12407 |
| | | 16 | 11255 | 13386 |
| | | 18 | 12004 | 13761 |
| | | 20 | 12926 | 14531 |
| | | 22 | 13531 | 16616 |
| | | 25 | 14703 | 18117 |
| 125 | ★★ | 6 | 10998 | 13646 |
| | | 8 | 11805 | 14702 |
| | | 10 | 12648 | 17109 |
| 125 | 32 | 12 | 14414 | 17764 |
| | | 14 | 15613 | 18976 |
| | | 16 | 16277 | 19708 |
| | | 18 | 17455 | 22479 |
| | | 20 | 18074 | 24250 |
| | | 22 | 19960 | 26353 |
| | | 25 | 21826 | 27404 |
| 28 | 24578 | 31373 | | |

HSS SIDE & FACE CUTTERS - IS : 6308 - 1982

| PRICE (Rs.) EACH | | | | |
|------------------|---------|----------|-------------------------|--------------------------|
| DIA MM | BORE MM | WIDTH MM | STRAIGHT TEETH TYPE "B" | STAGGERED TEETH TYPE "A" |
| 150 | ★★ | 6 | 13386 | 17213 |
| | | 8 | 14562 | 18622 |
| | | 10 | 15798 | 20067 |
| | | 12 | 18297 | 23112 |
| | | 14 | 19568 | 24578 |
| | | 16 | 20853 | 26067 |
| | | 18 | 23414 | 28914 |
| | | 20 | 23414 | 28914 |
| | | 22 | 25994 | 32036 |
| | | 25 | 28498 | 35283 |
| | | 28 | 30876 | 38688 |
| | | 32 | 33184 | 42208 |
| 160 | ★★ | 6 | 18214 | 20343 |
| | | 8 | 19361 | 21628 |
| | | 10 | 20509 | 22907 |
| | | 12 | 21633 | 24157 |
| 160 | 40 | 14 | 22773 | 25450 |
| | | 16 | 24115 | 26724 |
| | | 18 | 25823 | 29568 |
| | | 20 | 27114 | 29568 |
| | | 22 | 28713 | 32776 |
| | | 25 | 30991 | 38004 |
| | | 28 | 33184 | 39575 |
| | | 32 | 36122 | 43147 |
| 200 | ★★ | 6 | 23837 | 26440 |
| | | 8 | 25721 | 28474 |
| | | 10 | 27838 | 31292 |
| | | 12 | 32176 | 35378 |
| | | 14 | 34271 | 37854 |
| 200 | 40 | 16 | 36391 | 40373 |
| | | 18 | 40609 | 45778 |
| | | 20 | 41052 | 47172 |
| | | 22 | 44828 | 51313 |
| | | 25 | 49047 | 56348 |
| | | 28 | 51638 | 59845 |
| | | 32 | 57396 | 67076 |
| 225 | ★★ | 8 | 33518 | 36658 |
| | | 10 | 36484 | 39489 |
| | | 12 | 42475 | 46352 |
| | | 14 | 45533 | 50116 |
| | | 16 | 48643 | 53839 |
| | | 18 | 54875 | 62396 |
| | | 20 | 54875 | 62396 |
| | | 22 | 60580 | 69092 |
| | | 25 | 66341 | 75566 |
| | | 28 | 72234 | 81676 |
| 32 | 78116 | 87753 | | |
| 250 | ★★ | 10 | 42185 | 45322 |
| | | 12 | 49344 | 54037 |
| | | 14 | 53422 | 58228 |
| | | 16 | 57358 | 62396 |
| | | 18 | 64833 | 72181 |
| | | 20 | 64833 | 72181 |
| | | 22 | 71748 | 79967 |
| | | 25 | 79105 | 87104 |
| | | 28 | 85991 | 96379 |
| 32 | 92804 | 105690 | | |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 3 NOS. PER SIZE WHICHEVER IS HIGHER.

IMPORTANT NOTE

★★ BORE REQUIRED FOR THESE SIZES TO BE SPECIFIED WHILE ORDERING.

**HSS STRAIGHT TEETH SIDE & FACE CUTTERS
BS : 122 (PART 1) : 1953**

| WIDTH OF CUTTER EDGE & BOSS INCH | DIAMETER OF CUTTER | | | | |
|----------------------------------|--------------------|-------|--------|-------|-------|
| | 2-1/2" | 3" | 3-1/2" | 4" | 5" |
| | PRICE (Rs) EACH | | | | |
| 1/4 | 5013 | 5556 | 6602 | 7825 | 10998 |
| 5/16 | 5251 | 5837 | 6976 | 8388 | 11805 |
| 3/8 | 5488 | 6191 | 7419 | 8949 | 12648 |
| 7/16 | 5737 | 6479 | 7858 | 9514 | 13531 |
| 1/2 | 5982 | 6820 | 8243 | 9938 | 14414 |
| 5/8 | 6414 | 7480 | 9136 | 11255 | 16277 |
| 3/4 | 6852 | 8029 | 10007 | 12407 | 18074 |
| 7/8 | 7311 | 8936 | 10789 | 13531 | 19960 |
| 1 | 7825 | 9655 | 11869 | 14702 | 21826 |
| 1.1/4 | 8795 | 10662 | 13426 | 16711 | 25208 |
| 1.1/2 | 9799 | 12184 | 15128 | 18406 | 28678 |

**HSS STRAIGHT TEETH SIDE & FACE CUTTERS
BS : 122 (PART 1) : 1953**

| WIDTH OF CUTTER EDGE & BOSS INCH | DIAMETER OF CUTTER | | | | |
|----------------------------------|--------------------|-------|-------|--------|--------|
| | 6" | 7" | 8" | 9" | 10" |
| | PRICE (Rs) EACH | | | | |
| 1/4 | 13386 | 19851 | 23837 | 30705 | - |
| 5/16 | 14562 | 21480 | 25721 | 33516 | - |
| 3/8 | 15798 | 23110 | 27838 | 36484 | 42185 |
| 7/16 | 17045 | 24655 | 30001 | 39325 | 45336 |
| 1/2 | 18297 | 26629 | 32175 | 42476 | 49343 |
| 5/8 | 20843 | 29814 | 36391 | 48643 | 57358 |
| 3/4 | 23414 | 33063 | 40610 | 53893 | 64833 |
| 7/8 | 25993 | 36350 | 44830 | 60580 | 71750 |
| 1 | 28497 | 39598 | 49047 | 66340 | 79106 |
| 1.1/4 | 33184 | 46068 | 57386 | 78116 | 92804 |
| 1.1/2 | 37854 | 52622 | 65726 | 89924 | 107612 |
| 1.3/4 | - | - | - | 110276 | 130683 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 3 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

★★ BORE REQUIRED FOR THESE SIZES TO BE SPECIFIED WHILE ORDERING.

IMPORTANT NOTE :

Cutter of width of 3/4" and above will be supplied with Left hand Helical Flutes.

**HSS STAGGERED TEETH SIDE & FACE CUTTERS
BS : 122 (PART 1) 1953**

| WIDTH OF CUTTER EDGE & BOSS INCH | DIAMETER OF CUTTER | | | | | |
|----------------------------------|--------------------|-------|-------|-------|-------|-------|
| | 3" | 4" | 5" | 6" | 7" | 8" |
| | PRICE (Rs) EACH | | | | | |
| 1/4 | 6976 | 9514 | 13646 | 17213 | 22486 | 26474 |
| 5/16 | 7419 | 10182 | 14703 | 18622 | 25808 | 28474 |
| 3/8 | 8289 | 10789 | 17109 | 20067 | 27839 | 31292 |
| 7/16 | 8426 | 11448 | 17411 | 21565 | 29232 | 33338 |
| 1/2 | 8578 | 12128 | 17764 | 23112 | 30555 | 35378 |
| 5/8 | 9602 | 13386 | 19708 | 26067 | 35836 | 40373 |
| 3/4 | 10201 | 15276 | 22486 | 28914 | 40086 | 45915 |
| 7/8 | 11125 | 16616 | 26067 | 32036 | 44104 | 51313 |
| 1 | 12004 | 18115 | 27404 | 35259 | 48044 | 56333 |

HSS STAGGERED TEETH SIDE & FACE CUTTERS
BS : 122 (PART 1) : 1953

| WIDTH OF CUTTER EDGE & BOSS INCH | DIAMETER OF CUTTER | |
|----------------------------------|--------------------|--------|
| | 9" | 10" |
| | PRICE (Rs) EACH | |
| 5/16 | 36658 | 41989 |
| 3/8 | 39489 | 45322 |
| 7/16 | 43459 | 47407 |
| 1/2 | 46412 | 54037 |
| 5/8 | 53839 | 62396 |
| 3/4 | 62396 | 72181 |
| 7/8 | 69092 | 79989 |
| 1 | 71727 | 87104 |
| 1.1/4 | 87753 | 105690 |
| 1.1/2 | 100304 | 121439 |
| 1.3/4 | 122345 | 145932 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 3 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

IMPORTANT NOTES :

★★ BORE REQUIRED FOR THESE SIZES TO BE SPECIFIED WHILE ORDERING.

HSS SINGLE ANGLE CUTTERS IS : 6324 - 1971

| DIA MM | BORE MM | WIDTH MM | ANGLE DEGREES | PRICE (Rs) EACH |
|--------|---------|----------|-------------------------|-----------------|
| 50 | 16 | 12 | 60, 65, 70, 75, 80 & 85 | 3865 |
| 63 | 22 | 18 | 60, 65, 70, 75, 80 & 85 | 5761 |
| 63 | 22 | 26 | 70, 75 & 80 | 6851 |
| 80 | 22 | 32 | 70, 75 & 80 | 9000 |
| 100 | 27 | 36 | 70, 75 & 80 | 13503 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 15 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS SINGLE ANGLE CUTTERS - BS : 122 (PART 1) : 1953

| WIDTH OF CUTTER INCH | ANGLE DEGREES | PRICE (Rs) EACH | |
|----------------------|--------------------|--------------------|------|
| | | DIAMETER OF CUTTER | |
| | | 2.3/4" | 3" |
| 5/16 | 30 | 4791 | 5295 |
| 7/16 | 30, 40 | 5251 | 5991 |
| 1/2 | 45, 50, 60, 70, 80 | 5556 | 6272 |
| 5/8 | 50, 60, 70, 80 | 6190 | 6976 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 15 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS DOUBLE ANGLE CUTTERS BS : 122 (PART 1) : 1953

★ Angle in degrees

| DIA INCH | BORE INCH | WIDTH INCH | PRICE (Rs) EACH |
|----------|-----------|------------|-----------------|
| 2.3/4 | 1 | 5/8 | 5556 |
| 3 | 1.1/4 | 3/4 | 6976 |

★ Angle required to be specified at the time of order.

HSS EQUAL ANGLE CUTTER - BS : 122 (PART 1) : 1953

| WIDTH OF CUTTER INCH | INCLUDED ANGLE IN DEGREES | DIAMETER OF CUTTER | |
|----------------------|---------------------------|--------------------|------|
| | | 2.3/4" | 3" |
| | | PRICE (Rs) EACH | |
| 5/16 | 30, 40 | 4791 | 5295 |
| 7/16 | 30, 40 | 5013 | 5556 |
| 1/2 | 45, 60, 90 | 5013 | 5556 |
| 5/8 | 60, 90 | 5556 | 6082 |

HSS EQUAL ANGLE CUTTERS - IS : 6326

| DIA MM | BORE MM | WIDTH MM | ANGLE DEGREES | PRICE (Rs) EACH |
|--------|---------|----------|---------------|-----------------|
| 56 | 16 | 10 | 45 | 4251 |
| 63 | 22 | 12 | | 4791 |
| 80 | 22 | 16 | | 6082 |
| 100 | 27 | 18 | | 8841 |
| 56 | 16 | 12 | 60 | 4447 |
| 63 | 22 | 16 | | 5295 |
| 80 | 22 | 20 | | 6603 |
| 100 | 27 | 25 | | 10344 |
| 56 | 16 | 14 | 90 | 4791 |
| 63 | 22 | 18 | | 5556 |
| 80 | 22 | 22 | | 7178 |
| 100 | 27 | 28 | | 11211 |

HSS DOUBLE (Unequal) ANGLE CUTTER - IS 6325

| DIA MM | BORE MM | WIDTH MM | ANGLE DEGREES | PRICE (Rs) EACH |
|--------|---------|----------|---------------|-----------------|
| 50 | 16 | 12 | 55 X 12 | 4251 |
| | | | 60 X 15 | 4251 |
| | | | 65 X 15 | 4251 |
| | | | 70 X 15 | 4251 |
| | | | 75 X 15 | 4251 |
| | | | 80 X 15 | 4251 |
| 50 | 16 | 14 | 90 X 20 | 4636 |
| 50 | 16 | 16 | 100 X 25 | 5013 |
| 63 | 22 | 18 | 55 X 12 | 5820 |
| | | | 60 X 15 | 5820 |
| | | | 63 X 15 | 5820 |
| | | | 70 X 15 | 5820 |
| | | | 75 X 15 | 5820 |
| | | | 80 X 15 | 5820 |
| 63 | 22 | 20 | 90 X 20 | 6095 |
| 63 | 22 | 22 | 100 X 25 | 6589 |
| 80 | 22 | 32 | 65 X 15 | 9000 |
| | | | 70 X 15 | 9000 |
| | | | 75 X 15 | 9000 |
| 100 | 27 | 36 | 70 X 15 | 13503 |
| | | | 75 X 15 | 13503 |
| | | | 80 X 15 | 13503 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 20 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS CONVEX CUTTERS IS : 6323 : 1982

| DIA MM | BORE MM | WIDTH MM | RADIUS MM | PRICE (Rs) EACH |
|--------|---------|----------|-----------|-----------------|
| 50 | 22 | 3 | 1.6 | 5106 |
| 50 | 22 | 4 | 2 | 5106 |
| 56 | 22 | 5 | 2.5 | 6042 |
| 56 | 22 | 6 | 3 | 6042 |
| 63 | 22 | 8 | 4 | 6414 |
| 63 | 22 | 10 | 5 | 7068 |
| 70 | 22 | 12 | 6 | 7619 |
| 70 | 22 | 16 | 8 | 8388 |
| 90 | 27 | 18 | 9 | 11211 |
| 90 | 27 | 20 | 10 | 11805 |
| 90 | 27 | 22 | 11 | 13008 |
| 90 | 27 | 24 | 12 | 13941 |
| 100 | 27 | 28 | 14 | 17780 |
| 110 | 32 | 32 | 16 | 22486 |
| 110 | 32 | 36 | 18 | 29685 |
| 125 | 40 | 40 | 20 | 32919 |

HSS CONCAVE CUTTERS IS : 6322 : 1982

| DIA MM | BORE MM | WIDTH MM | RADIUS MM | PRICE (Rs) EACH |
|--------|---------|----------|-----------|-----------------|
| 56 | 22 | 8 | 1.6 | 6414 |
| 56 | 22 | 9 | 2 | 6738 |
| 56 | 22 | 10 | 2.5 | 6933 |
| 63 | 22 | 12 | 3 | 7533 |
| 63 | 22 | 16 | 4 | 7750 |
| 63 | 22 | 20 | 5 | 9092 |
| 70 | 22 | 24 | 6 | 10837 |
| 70 | 22 | 28 | 7 | 11372 |
| 80 | 27 | 32 | 8 | 14864 |
| 90 | 27 | 36 | 9 | 17764 |
| 90 | 27 | 40 | 10 | 19708 |
| 100 | 27 | 42 | 11 | 22984 |
| 100 | 27 | 44 | 12 | 23758 |
| 100 | 27 | 46 | 12.5 | 24221 |
| 100 | 27 | 50 | 14 | 26652 |
| 110 | 32 | 56 | 16 | 36687 |
| 125 | 32 | 62 | 18 | 49980 |
| 125 | 32 | 70 | 20 | 52622 |

HSS CONVEX / CONCAVE CUTTERS : BS : 122 (PART 1) : 1953

| DIA OF CUTTER INCH | DIA OF CURCLE INCH | DIA OF BORE INCH | CONVEX CUTTER | | CONCAVE CUTTER | |
|--------------------|--------------------|------------------|-----------------------------|-----------------|------------------------------|-----------------|
| | | | WIDTH OF CONVEX CUTTER INCH | PRICE (Rs) EACH | WIDTH OF CONCAVE CUTTER INCH | PRICE (Rs) EACH |
| 2.1/4 | 1/8 | 1 | 1/8 | 5430 | 5/16 | 6414 |
| | 3/16 | | 3/16 | 5792 | 3/8 | 6650 |
| | 1/4 | | 1/4 | 6054 | 1/2 | 7085 |
| 2.1/2 | 5/16 | 1 | 5/16 | 6414 | 5/8 | 7762 |
| | 3/8 | | 3/8 | 6834 | 3/4 | 8417 |
| | 7/16 | | 7/16 | 7081 | 7/8 | 9092 |
| | 1/2 | | 1/2 | 7626 | 1 | 9696 |
| 2.3/4 | 9/16 | 1 | 9/16 | 7762 | 1.3/16 | 11372 |
| | 5/8 | | 5/8 | 8426 | 1.3/16 | 11661 |
| 3 | 11/16 | 1 | 11/16 | 8576 | 1.3/8 | 8576 |
| | 3/4 | | 3/4 | 8990 | 1.3/8 | 8990 |
| 3.1/4 | 13/16 | 1 | 13/16 | 11085 | 1.9/16 | 16929 |
| | 7/8 | | 7/8 | 11805 | 1.9/16 | 17213 |
| 3.1/2 | 15/16 | 1 | 15/16 | 13223 | 1.3/4 | 20142 |
| | 1 | | 1 | 13829 | 1.3/4 | 20428 |
| 4 | 1.1/8 | 1.1/4 | 1.1/8 | 17780 | 1.15/16 | 24974 |
| | 1.1/4 | | 1.1/4 | 19568 | 2.1/8 | 26652 |
| 4.1/4 | 1.3/8 | 1.1/4 | 1.3/8 | 26934 | 2.5/16 | 35123 |
| | 1.1/2 | | 1.1/2 | 29136 | 2.1/2 | 40247 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS SINGLE / DOUBLE CORNER ROUNDING CUTTERS BS : 122 (PART 1) : 1953

| DIA OF CUTTER INCH | CORNER RADIUS INCH | DIA OF BORE INCH | SINGLE CUTTER | | DOUBLE CUTTER | |
|--------------------|--------------------|------------------|----------------------|-----------------|----------------------|-----------------|
| | | | WIDTH OF CUTTER INCH | PRICE (Rs) EACH | WIDTH OF CUTTER INCH | PRICE (Rs) EACH |
| 2.1/4 | 1/16 | 1 | 5/16 | 5690 | 7/16 | 8043 |
| | 3/32 | | 5/16 | 5690 | 7/16 | 8043 |
| | 1/8 | | 5/16 | 5690 | 7/16 | 8043 |
| 2.1/2 | 5/32 | 1 | 7/16 | 6414 | 5/8 | 9048 |
| | 3/16 | | 7/16 | 6414 | 5/8 | 9048 |
| | 7/32 | | 1/2 | 6780 | 3/4 | 9696 |
| | 1/4 | | 1/2 | 6780 | 3/4 | 9696 |
| 2.3/4 | 9/32 | 1 | 5/8 | 7953 | 15/16 | 11535 |
| | 5/16 | | 5/8 | 7953 | 15/16 | 11535 |
| 3 | 11/32 | 1 | 11/16 | 9425 | 1.1/16 | 13434 |
| | 3/8 | | 11/16 | 9425 | 1.1/16 | 13434 |
| 3.1/4 | 13/32 | 1 | 3/4 | 10672 | 1.3/16 | 15422 |
| | 7/16 | | 3/4 | 10672 | 1.3/16 | 15422 |
| 3.1/2 | 15/32 | 1 | 7/8 | 12685 | 1.3/8 | 18622 |
| | 1/2 | | 7/8 | 12685 | 1.3/8 | 18622 |
| | 9/16 | | 1 | 13967 | 1.5/8 | 20830 |
| | 5/8 | | 1 | 13967 | 1.5/8 | 20830 |
| 3.3/4 | 11/16 | 1 | 1.1/8 | 20547 | 1.7/8 | 29429 |
| | 3/4 | | 1.1/8 | 20547 | 1.7/8 | 29429 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 35,000 / - NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS SINGLE CORNER ROUNDING CUTTERS IS : 6314 - 1982

| DIA MM | BORE MM | WIDTH MM | RADIUS MM | PRICE (Rs) EACH |
|--------|---------|----------|-----------|-----------------|
| 56 | 22 | 4 | 1.6 | 5430 |
| 56 | 22 | 5 | 2.5 | 5430 |
| 63 | 22 | 6 | 3 | 6272 |
| 63 | 22 | 8 | 4 | 6563 |
| 63 | 22 | 10 | 5 | 6993 |
| 70 | 22 | 12 | 6 | 7480 |
| 70 | 22 | 14 | 7 | 7858 |
| 80 | 27 | 16 | 8 | 9740 |
| 90 | 27 | 18 | 9 | 11759 |
| 90 | 27 | 20 | 10 | 12775 |
| 100 | 27 | 22 | 12 | 20712 |
| 100 | 27 | 22 | 12.5 | 20712 |
| 100 | 27 | 25 | 14 | 21937 |
| 110 | 32 | 28 | 16 | 23573 |
| 125 | 32 | 31 | 18 | 30143 |
| 125 | 32 | 35 | 20 | 32049 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

**HSS PARALLEL SHANK END MILL IS : 6353
(STANDARD SERIES)**

| DIA MM | PRICE (Rs.) EACH | IS : 6353 - 1971 | | IS : 6353 - 1991 | |
|-----------|---------------------|------------------|----------|------------------|----------|
| | | CEL (MM) | OAL (MM) | CEL (MM) | OAL (MM) |
| 3★ | 838 | 10 | 42 | 8★ | 40 |
| 3.5 | 838 | - | - | 10 | 42 |
| 4★ | 838 | 11 | 43 | 11★ | 43 |
| 5★ | 838 | 13 | 47 | 13★ | 47 |
| 6★ | 937 | 16 | 52 | 13★ | 57 |
| 7★ | 1054 | - | - | 16★ | 60 |
| 8★ | 1054 | - | - | 19★ | 63 |
| 9★ | 1054 | - | - | 19★ | 69 |
| 10★ | 1054 | 22 | 67 | 22★ | 72 |
| 11★ | 1054 | 22 | 67 | 22★ | 79 |
| 12★ | 1089 | 26 | 76 | 26★ | 83 |
| 13 | 1230 | 26 | 76 | 26 | 83 |
| 14 | 1350 | 26 | 76 | 26★ | 83 |
| 16★ | 1577 | 32 | 88 | 32★ | 92 |
| 17 | 1724 | 32 | 88 | 32 | 92 |
| 18★ | 1917 | 32 | 88 | 32★ | 92 |
| 19 | 1917 | 32 | 88 | 32 | 92 |
| 20★ | 2119 | 38 | 101 | 38★ | 104 |
| 21 | 2378 | 38 | 101 | 38 | 104 |
| 22★ | 2404 | 38 | 101 | 38★ | 104 |
| 24 | 2606 | 38 | 101 | 45 | 121 |
| 25★ | 2803 | 45 | 116 | 45★ | 121 |
| 26 | 2907 | 45 | 116 | 45 | 121 |
| 27 | 3419 | 45 | 116 | 45 | 121 |
| 28 | 3990 | 45 | 116 | 45 | 121 |
| 29 | 3990 | 45 | 116 | 45 | 121 |
| 30★ | 4391 | 45 | 116 | 45★ | 121 |
| 32★ | 4789 | 63 | 140 | 53★ | 133 |
| 33 | 5306 | 63 | 140 | 53 | 133 |
| 35 | 5783 | 70 | 160 | 53 | 133 |
| 36 | 6306 | 70 | 160 | 53 | 133 |
| 37 | 6796 | 70 | 160 | 53 | 133 |
| 38 | 7245 | 70 | 160 | 63 | 155 |
| 39 | 7683 | 70 | 160 | 63 | 155 |
| 40 | 8160 | 70 | 160 | 63 | 155 |
| 41 | 8160 | 70 | 160 | 63 | 155 |
| 43 | 9289 | 80 | 180 | 63 | 155 |
| 45 | 10407 | 80 | 180 | 63 | 155 |
| 46 | 10407 | 90 | 200 | 63 | 155 |
| 49 | 11446 | 90 | 200 | 75 | 177 |
| 50 | 12593 | 90 | 200 | 75 | 177 |
| 51 | 12593 | 90 | 200 | 75 | 177 |
| 53 | 15501 | 90 | 200 | 75 | 177 |
| 54 | 18364 | 100 | 220 | 75 | 177 |
| 56 | 22082 | 100 | 220 | 75 | 177 |
| 57 | 25683 | 100 | 220 | 75 | 177 |
| 59 | 25683 | 100 | 220 | 75 | 177 |
| 61 | 27421 | 110 | 250 | 90 | 192 |
| 63 | 28545 | 110 | 250 | 90 | 192 |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/- NETT MOQ OR 5 NOS. PER SIZE. WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

IMPORTANT NOTES :

1. For non-listed intermediates sizes, the higher price of the nearest listed size will be applicable.
2. LH End Mill Dia 17 mm & above on special request - 25 % extra
3. Long series End Mills, if required, can be supplied at 30 % extra subject to the order value being minimum Rs. 50,000/-NETT, per size or minimum 5 Nos. per size whichever is higher.

**HSS TAPER SHANK END MILLS IS : 6354
(STANDARD SERIES)**

| DIA MM | PRICE (Rs) EACH | IS:6354-1971 TANGED END | | IS:6354-1991 TAPPED END | | MT No. |
|-----------|--------------------|-------------------------|----------|-------------------------|----------|-----------|
| | | CEL (MM) | OAL (MM) | CEL (MM) | OAL (MM) | |
| 6 | 1395 | 16 | 90 | 13 | 83 | 1 |
| 7 | 1395 | - | - | 16 | 86 | 1 |
| 8 | 1395 | 19 | 93 | 19 | 89 | 1 |
| 9 | 1510 | - | - | 19 | 89 | 1 |
| 10 | 1510 | 22 | 96 | 22 | 92 | 1 |
| 11 | 1660 | - | - | 22 | 92 | 1 |
| 12 | 1660 | 26 | 100 | 26 | 96 | 1 |
| 12★ | 2168 | 26 | 118 | 26 | 111 | 1 |
| 14 | 2293 | 26 | 100 | 26 | 96 | 2 |
| 14★ | 2442 | 26 | 118 | 26 | 111 | 1 |
| 16 | 2444 | 32 | 124 | 32 | 117 | 2 |
| 18 | 2984 | 32 | 124 | 32 | 117 | 2 |
| 20 | 3444 | 38 | 130 | 38 | 123 | 2 |
| 20★ | 3764 | 38 | 150 | 38 | 140 | 3 |
| 22 | 3615 | 38 | 130 | 38 | 123 | 2 |
| 22★ | 3945 | - | - | 38 | 140 | 3 |
| 25 | 4260 | 45 | 157 | 45 | 147 | 3 |
| 26 | 5305 | 45 | 157 | 45 | 147 | 3 |
| 28 | 5932 | 45 | 157 | 45 | 147 | 3 |
| 30 | 6524 | 53 | 165 | 45 | 147 | 3 |
| 32 | 6925 | 53 | 165 | 53 | 155 | 3 |
| 32★ | 6925 | 53 | 183 | 53 | 178 | 4 |
| 33 | 8373 | 53 | 165 | 53 | 155 | 3 |
| 33★ | 9184 | - | - | 53 | 178 | 4 |
| 35 | 9184 | 53 | 165 | 53 | 155 | 3 |
| 35★ | 9184 | - | - | 53 | 178 | 4 |
| 36 | 9979 | 70 | 210 | 53 | 155 | 3 |
| 36★ | 10886 | - | - | 53 | 178 | 4 |
| 38 | 10977 | 63 | 203 | 63 | 188 | 4 |
| 38★ | 12762 | - | - | 63 | 221 | 5 |
| 40 | 12762 | 63 | 203 | 63 | 188 | 4 |
| 40★ | 12762 | 63 | 203 | 63 | 221 | 5 |
| 41 | 12762 | 63 | 203 | 63 | 188 | 4 |
| 41★ | 14032 | - | - | 63 | 221 | 5 |
| 43 | 14032 | 63 | 203 | 63 | 188 | 4 |
| 43★ | 14032 | - | - | 63 | 221 | 5 |
| 44 | 14660 | 63 | 203 | 63 | 188 | 4 |
| 44★ | 14660 | - | - | 63 | 221 | 5 |
| 45 | 15766 | 63 | 203 | 63 | 188 | 4 |
| 45★ | 15766 | - | - | 63 | 221 | 5 |
| 46 | 16137 | 63 | 203 | 63 | 188 | 4 |
| 46★ | 16714 | - | - | 63 | 221 | 5 |
| 48 | 16714 | 63 | 203 | 75 | 200 | 4 |
| 48★ | 18795 | - | - | 75 | 233 | 5 |
| 50 | 18795 | 75 | 215 | 75 | 200 | 4 |
| 50★ | 18795 | 75 | 250 | 75 | 233 | 5 |
| 51 | 18795 | 75 | 250 | 75 | 200 | 4 |
| 51★ | 26335 | - | - | 75 | 233 | 5 |
| 53 | 26336 | 75 | 250 | 75 | 200 | 4 |
| 53★ | 33280 | - | - | 75 | 233 | 5 |
| 56 | 33278 | 75 | 250 | 75 | 200 | 4 |
| 56★ | 33278 | - | - | 75 | 233 | 5 |
| 60 | 34926 | - | - | 75 | 200 | 4 |
| 60★ | 34926 | 75 | 250 | 75 | 233 | 5 |
| 63 | 41879 | 90 | 265 | 90 | 248 | 5 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

★ These sizes will be supplied with the smaller MT Shank unless otherwise specified.

IMPORTANT NOTES :

THE FOLLOWING IF REQUIRED, CAN BE SUPPLIED SUBJECT TO THE ORDER VALUE BEING Rs. 50,000/-NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

1. Standard Series Type 'B' Tapped End as per IS:6354 - 1971at the same rate.
2. Long Series End Mill, Tanged End or Tapped End if required can be supplied at 30 % extra subject to the order value being minimum Rs. 50,000/- per size or minimum 5 Nos. each whichever is higher.
3. For non-listed intermediates sizes, the higher price of the nearest listed size will be applicable subject to order value being minimum. Rs.50,000/- per size or minimum 5 Nos. each whichever is higher.
4. Left Hand Cutter at 25 % extra.
Dia 6.0 mm to 12.0 mm in Tapped End & Tanged End Not Possible

HSS END MILLS
BS : 122 (PART 1) 1953

| DIA INCH | PARALLEL SHANK PRICE (Rs.) EACH | TAPER SHANK PRICE (Rs.) EACH |
|----------|---------------------------------|------------------------------|
| 1/8 | 838 | 1304 |
| 5/32 | 838 | 1304 |
| 3/16 | 838 | 1304 |
| 7/32 | 838 | 1304 |
| 1/4★ | 937 | 1304 |
| 9/32 | 1054 | 1334 |
| 5/16★ | 1054 | 1334 |
| 3/8★ | 1054 | 1450 |
| 7/16 | 1054 | 1469 |
| 1/2★ | 1089 | 1660 |
| 9/16 | 1350 | 2293 |
| 5/8★ | 1577 | 2444 |
| 11/16 | 1763 | 2755 |
| 3/4★ | 1917 | 2908 |
| 13/16 | 2119 | 3305 |
| 7/8 | 2404 | 3619 |
| 15/16 | - | 3929 |
| 1★ | 2803 | 4226 |
| 1.1/8 | 3990 | 5894 |
| 1.1/4 | 4789 | 6925 |
| 1.3/8 | 5783 | 9184 |
| 1.1/2 | 6772 | 10977 |
| 1.5/8 | 8160 | 12762 |
| 1.3/4 | 10407 | 14660 |
| 1.7/8 | 11473 | 16714 |
| 2 | 12565 | 18795 |
| 2.1/16 | 15501 | - |
| 2.1/8 | 18364 | 26047 |
| 2.3/16 | 22082 | - |
| 2.1/4 | 23892 | 33276 |
| 2.5/16 | 25683 | - |
| 2.3/8 | 27421 | 36314 |
| 2.1/2 | 30918 | 41879 |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/- NETT MOQ OR 5 NOS. PER SIZE. WHICHEVER IS HIGHER.

IMPORTANT NOTES :

1. Taper Shank End Mills with Tapped End for size 9/16" and over, if required, can be supplied at the same rate as the Tanged End.
2. Intermediate sizes (non-listed) price of the next larger listed size.
3. Left Hand Cutter at 25 % extra.
in case of Taper Shank End Mill Dia 11/16" & above with MOQ.
4. For M35 = 40% & M42 = 80% extra

HSS PARALLEL SHANK SLOT MILLING CUTTERS
IS : 6352 (SHORT SERIES)

| DIA MM | PRICE (Rs) EACH | IS:6352-1971 | | IS:6352-1991 | |
|--------|-----------------|--------------|----------|--------------|----------|
| | | CEL (MM) | OAL (MM) | CEL (MM) | OAL (MM) |
| 3 | 1017 | 6 | 40 | 5 | 37 |
| 3.5 | 1017 | 6 | 40 | 6 | 38 |
| 4 | 1017 | 6 | 40 | 7 | 39 |
| 5 | 1017 | 8 | 45 | 8 | 42 |
| 6★ | 1089 | 8 | 45 | 8★ | 52 |
| 7 | 1089 | 10 | 50 | 10 | 54 |
| 8★ | 1089 | 10 | 50 | 11★ | 55 |
| 9 | 1089 | 10 | 50 | 11 | 61 |
| 10 | 1130 | 12 | 56 | 13 | 63 |
| 11 | 1130 | 12 | 56 | 13 | 70 |
| 12 | 1232 | 16 | 63 | 16 | 73 |
| 14 | 1577 | 16 | 63 | 16 | 73 |
| 16 | 1774 | 18 | 70 | 19 | 79 |
| 18 | 2184 | 18 | 70 | 19 | 79 |
| 20 | 2184 | 20 | 80 | 22 | 88 |
| 22 | 2547 | 22 | 90 | 22 | 88 |
| 25 | 3021 | 25 | 100 | 26 | 102 |
| 28 | 5005 | 25 | 100 | 26 | 102 |
| 32 | 5243 | 28 | 110 | 32 | 112 |
| 35 | 6306 | 32 | 118 | 32 | 112 |
| 36 | 6772 | 32 | 118 | 32 | 112 |
| 38 | 7302 | 36 | 125 | 38 | 130 |
| 40 | 7816 | 36 | 125 | 38 | 130 |
| 41 | 8840 | - | - | 38 | 130 |
| 42 | 8840 | - | - | 38 | 130 |
| 43 | 9828 | - | - | 38 | 130 |
| 44 | 9828 | - | - | 38 | 130 |
| 45 | 9828 | - | - | 38 | 130 |
| 46 | 10912 | - | - | 38 | 130 |
| 47 | 10912 | - | - | 38 | 130 |
| 48 | 10912 | - | - | 45 | 147 |
| 49 | 11966 | - | - | 45 | 147 |
| 50 | 11966 | - | - | 45 | 147 |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/- NETT MOQ OR 5 NOS. PER SIZE. WHICHEVER IS HIGHER.

IS : 6352 - 1971 1) TYPE 'A' - FLATE FACE HELICAL FLUTED
IS : 6352 - 1991 1) TYPE 'A' - FLATE FACE HELICAL FLUTED

IMPORTANT NOTES :

1. Type 'A' will be supplied unless otherwise specified.
2. Other Type if required can be supplied at the same rate.
3. Left Hand Cutter at 25 % extra.
4. Standard Series Slot Milling Cutter if required can be supplied a 30 % extra, subject to the order value being minimum Rs. 50,000/- NETT. Or 5 Nos. per size whichever is higher.
5. For M35 = 40% & M42 = 80% extra

HSS TAPER SHANK SLOT MILLING CUTTERS IS : 6388 (SHORT SERIES)

| DIA MM | PRICE (Rs.) EACH | IS : 6388 - 1971 | | | IS : 6388 - 1991 | | MT NO. |
|-----------|---------------------|------------------|-----------------|-----------------|------------------|-----------|-----------|
| | | CEL MM | (TANGED END) | (TAPPED END) | (TAPPED END) | | |
| | | | OAL MM | OAL MM | CEL MM | OAL MM | |
| 6 | 1554 | - | - | - | 8 | 78 | 1 |
| 7 | 1554 | 16 | 90 | - | 10 | 80 | 1 |
| 8 | 1709 | 16 | 90 | - | 11 | 81 | 1 |
| 9 | 1709 | 16 | 90 | - | 11 | 81 | 1 |
| 10 | 1745 | 16 | 90 | - | 13 | 83 | 1 |
| 11 | 1745 | 16 | 90 | - | 13 | 83 | 1 |
| 12 | 1948 | 16 | 90 | - | 16 | 86 | 1 |
| 12★ | 2279 | - | - | - | 16 | 101 | 2 |
| 14 | 2444 | 16 | 90 | - | 16 | 86 | 1 |
| 14★ | 2537 | - | - | - | 16 | 101 | 2 |
| 16 | 2537 | 18 | 110 | 100 | 19 | 104 | 2 |
| 18 | 2908 | 18 | 110 | 100 | 19 | 104 | 2 |
| 20 | 2908 | 20 | 114 | 104 | 22 | 107 | 2 |
| 20★ | 3597 | 20 | - | - | 22 | 124 | 3 |
| 22 | 3613 | 22 | 118 | 108 | 22 | 107 | 2 |
| 22★ | 4305 | - | - | - | 22 | 124 | 3 |
| 25 | 4303 | 25 | 143 | 130 | 26 | 128 | 3 |
| 26 | 5937 | 25 | 143 | 130 | 26 | 128 | 3 |
| 28 | 6289 | 25 | 143 | 130 | 26 | 128 | 3 |
| 32 | 7539 | 28 | 148 | 135 | 32 | 134 | 3 |
| 32★ | 9089 | - | - | - | 32 | 157 | 4 |
| 35 | 9770 | 32 | 179 | 164 | 32 | 134 | 3 |
| 35★ | 11313 | - | - | - | 32 | 157 | 4 |
| 36 | 11394 | 32 | 179 | 164 | 32 | 134 | 3 |
| 36★ | 11394 | - | - | - | 32 | 157 | 4 |
| 38 | 11394 | 36 | 186 | 171 | 38 | 163 | 4 |
| 38★ | 15684 | - | - | - | 38 | 196 | 5 |
| 40 | 13004 | 36 | 186 | 171 | 38 | 163 | 4 |
| 40★ | 17305 | - | - | - | 38 | 196 | 5 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

★ These sizes will be supplied with the smaller MT Shank unless otherwise specified.

IS : 6352 - 1971 1) TYPE 'A' & 'D' - FLATE FACE HELICAL FLUTED
2) TYPE 'B' & 'F' - FLATE FACE STRIGHT FLUTED

IS : 6352 - 1991 1) TYPE 'D' - FLATE FACE HELICAL FLUTED

IMPORTANT NOTES :

1. Type 'A' (IS:6388 - 1971) and Type 'D' (IS:6388 - 1991) will be supplied Unless otherwise specified.
2. Other Type if required can be supplied at the same rate.
3. For non-listed intermediates sizes, the higher price of the nearest listed size will be applicable.
4. Left Hand Cutter at 25 % extra from Dia 14.0 mm & above only.
5. Standard Series Slot Milling Cutters if required can be supplied at 30 % extra.

HSS SLOT DRILLS BS : 122 (PART 1) : 1953

| DIA INCH | PARALLEL SHANK PRICE (Rs.) EACH | TAPER SHANK PRICE (Rs.) EACH |
|-------------|---------------------------------------|------------------------------------|
| 1/8 | 1017 | 1398 |
| 5/32 | 1017 | 1398 |
| 3/16 | 1017 | 1398 |
| 7/32 | 1085 | 1531 |
| 1/4 | 1089 | 1610 |
| 5/16 | 1089 | 1709 |
| 3/8 | 1089 | 1709 |
| 7/16 | 1112 | 1745 |
| 1/2 | 1232 | 1948 |
| 9/16 | 1577 | 2444 |
| 5/8 | 1774 | 2537 |
| 11/16 | 2006 | 2757 |
| 3/4 | 2184 | 2908 |
| 13/16 | 2547 | 3613 |
| 7/8 | 2547 | 3613 |
| 1 | 3021 | 4303 |
| 1.1/8 | 4301 | 6289 |
| 1.1/4 | 5243 | 7539 |
| 1.3/8 | 6306 | 9770 |
| 1.1/2 | 7302 | 11394 |
| 1.5/8 | 9040 | - |
| 1.3/4 | 9828 | - |
| 1.7/8 | 10912 | - |
| 2 | 11965 | - |

- 1) Straight flute, Flat Faced, will be supplied unless otherwise specified.
- 2) Spiral Fluted, Flate faced same rate. 3) Left hand Cutter 25 % extra.

HSS TAPER SHANK T-SLOT CUTTERS - BS : 122 (PART 1) : 1953

| NOMINAL SIZE OF BOLT INCH | DIA OF CUTTER INCH | WIDTH OF CUTTER INCH | MT SHANK NO. | TAPPED END PRICE (Rs.) EACH |
|---------------------------------|--------------------------|----------------------------|-----------------|-----------------------------------|
| 1/4 | 37/64 | 1/4 | 2 | 5484 |
| 5/16 | 45/64 | 5/16 | 2 | 6184 |
| 3/8 | 53/64 | 23/64 | 2 | 6762 |
| 7/16 | 61/64 | 27/64 | 2 | 7166 |
| 1/2 | 1.5/64 | 15/32 | 2 | 8656 |
| 5/8 | 1.21/64 | 37/64 | 3 | 14013 |
| 3/4 | 1.33/64 | 11/16 | 3 | 17399 |
| 7/8 | 1.45/64 | 51/64 | 3 | 20520 |
| 1 | 1.61/64 | 29/32 | 4 | 25411 |
| 1.1/8 | 2.1/8 | 1.1/16 | 4 | 32802 |
| 1.1/4 | 2.5/16 | 1.3/16 | 4 | 39019 |
| 1.3/8 | 2.1/2 | 1.5/16 | 5 | 48163 |
| 1.1/2 | 2.3/4 | 1.7/16 | 5 | 61664 |

HSS TAPER SHANK T - SLOT CUTTERS (STAGGERED TEETH) IS : 2668 : 1992

| NOMINAL OF T-SLOT MM | DIA OF CUTTER MM | WIDTH MM | PRICE (Rs.) EACH |
|-------------------------|---------------------|-------------|---------------------|
| 10★ | 18 | 8 | 6827 |
| 12★ | 21 | 9 | 7460 |
| 14★ | 25 | 11 | 14338 |
| 18★ | 32 | 14 | 17951 |
| 22 | 40 | 18 | 24048 |
| 28 | 50 | 22 | 31014 |
| 36 | 60 | 28 | 55889 |
| 42 | 72 | 35 | 67824 |

★ These sizes will be supplied with the smaller MT Shank unless otherwise specified.

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS WOODRUFF KEYSLOT CUTTERS - IS 2669 - 1971
(Straight Teeth Type)

| DIA MM | WIDTH MM | NOM SIZE OF KEY MM | PRICE (Rs) EACH |
|--------|--------------|-----------------------------|----------------------|
| 16.5 | 5 | 5 x 6.5 | 2497 |
| 19.5 | 5 6 | 5 x 7.5 6 x 7.5 | 2839 2839 |
| 22.5 | 5 6 8 | 5 x 9 6 x 9 8 x 9 | 3230 3230 3230 |
| 28.5 | 6 8 10 | 6 x 11 8 x 11 10 x 11 | 5240 5240 5240 |
| 32.5 | 7 8 10 | 7 x 13 8 x 13 10 x 13 | 6196 6196 6196 |
| 45.5 | 10 | 10 x 16 | 10524 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 15 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS CUTTER FOR WOODRUFF KEYSEATS - BS : 122 (PART 1) 1953

| B. S. Cutter & KEY No. | PRICE (Rs.) EACH | B. S. Cutter & KEY No. | PRICE (Rs.) EACH | B. S. Cutter & KEY No. | PRICE (Rs.) EACH |
|------------------------|------------------|------------------------|------------------|------------------------|------------------|
| 606 | 3115 | 609 | 5470 | 1011 | 7879 |
| 607 | 3657 | 809 | 5470 | 1211 | 7879 |
| 807 | 3657 | 1009 | 5510 | 812 | 8900 |
| 608 | 4423 | 810 | 6472 | 1012 | 8900 |
| 808 | 4423 | 1010 | 6472 | 1212 | 8900 |
| 1008 | 4423 | 1210 | 6472 | | |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 15 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS FACE CUTTERS :
(As per Table No 19 of BSS : 122 : 1938)

| DIAMETER OF CUTTER INCH | OVERALL LENGTH OF CUTTER INCH | DIAMETER OF BORE INCH | PRICE (Rs.) EACH |
|-------------------------|-------------------------------|-----------------------|------------------|
| 1.3/4 | 1.1/4 | 3/4 | 5691 |
| 2 | 1.1/4 | 3/4 | 6563 |
| 2.1/2 | 1.1/4 | 3/4 | 8289 |
| 3 | 1.11/16 | 1.1/8 | 11869 |
| 4 | 1.3/4 | 1.1/8 | 19851 |
| 5 | 2 | 1.1/2 | 33388 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS KEYWAY MILLING CUTTERS FORM RELIEVED
IS : 6355 (STRAIGHT TEETH TYPE)

| DIA MM (js 16) | BORE MM (H7) | WIDTH MM (d9) | PRICE (Rs) EACH |
|----------------|--------------|---------------|-----------------|
| 50 | 16 | 5 | 3711 |
| | | 6 | 4013 |
| | | 8 | 4259 |
| | | 10 | 4447 |
| 63 | 22 | 6 | 4358 |
| | | 8 | 4557 |
| | | 10 | 5013 |
| | | 12 | 5442 |
| | | 14 | 5761 |
| | | 16 | 6190 |
| 80 | 27 | 18 | 6653 |
| | | 6 | 6095 |
| | | 8 | 6495 |
| | | 10 | 6933 |
| | | 12 | 7762 |
| | | 14 | 8388 |
| 100 | 32 | 16 | 8912 |
| | | 18 | 9413 |
| | | 20 | 10007 |
| | | 6 | 7178 |
| | | 8 | 7704 |
| | | 10 | 8388 |
| 125 | 32 | 12 | 9134 |
| | | 14 | 9827 |
| | | 16 | 10575 |
| | | 18 | 11191 |
| | | 20 | 11435 |
| | | 22 | 12775 |
| 160 | 40 | 25 | 13646 |
| | | 8 | 10998 |
| | | 10 | 12029 |
| | | 12 | 13120 |
| | | 14 | 14460 |
| | | 16 | 15422 |
| 200 | 40 | 18 | 16711 |
| | | 20 | 17697 |
| | | 22 | 18850 |
| | | 25 | 20636 |
| | | 32 | 22370 |
| | | 10 | 19819 |
| 200 | 40 | 12 | 20867 |
| | | 14 | 22234 |
| | | 16 | 23806 |
| | | 18 | 25335 |
| | | 20 | 27032 |
| | | 22 | 28784 |
| | | 25 | 31248 |
| | | 28 | 32993 |
| | | 32 | 37338 |
| | | 12 | 30688 |
| | | 14 | 32420 |
| | | 16 | 34478 |
| 18 | 36907 | | |
| 20 | 39509 | | |
| 22 | 42453 | | |
| 25 | 45766 | | |
| 28 | 49597 | | |
| 32 | 55206 | | |
| 36 | 60809 | | |
| 40 | 66583 | | |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 15 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS SLOTTING CUTTERS - BS : 122 (PART 1) : 1953 (STRAIGHT TEETH)

| WIDTH OF CUTTER | DIAMETER OF CUTTER PRICE (Rs.) EACH | | | | | | |
|-----------------|--|--------|------|--------|-------|-------|----|
| | INCH | 2.1/2" | 3" | 3.1/2" | 4" | 5" | 6" |
| 1/4 | 3017 | 3448 | 4301 | 5186 | 8289 | 10709 | |
| 5/16 | 3270 | 3711 | 4722 | 5792 | 9079 | 11870 | |
| 3/8 | 3490 | 3993 | 5106 | 6322 | 9876 | 13017 | |
| 7/16 | 3691 | 4364 | 5489 | 7363 | 10709 | 14179 | |
| 1/2 | 3899 | 4585 | 5885 | 7419 | 11538 | 15362 | |
| 5/8 | 4364 | 5162 | 6701 | 9275 | 13120 | 17692 | |
| 3/4 | 4672 | 5624 | 7281 | 9413 | 14414 | 19619 | |
| 7/8 | 5000 | 6209 | 7858 | 10837 | 15733 | 21565 | |
| 1 | 5295 | 6851 | 8426 | 11158 | 17045 | 23577 | |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 15 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS SHELL END MILLS - IS : 6257 - 1982

| DIA MM (js 16) | BORE (H7) | WIDTH (js 16) | PRICE (Rs.) EACH |
|----------------|-----------|---------------|------------------|
| 40 | 16 | 32 | 6603 |
| 50 | 22 | 36 | 8029 |
| 63 | 27 | 40 | 10570 |
| 80 | 27 | 45 | 15613 |
| 100 | 32 | 50 | 23837 |
| 125 | 40 | 56 | 39967 |
| 160 | 50 | 63 | 75435 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS SHELL END MILL - BS : 122 (PART 1) : 1953

| DIA OF CUTTER INCH | LENGTH OF CUTTER INCH | DIA OF BORE INCH | PRICE (Rs.) EACH |
|--------------------|-----------------------|------------------|------------------|
| 1.1/4 | 1 | 1/2 | 4542 |
| 1.1/2 | 1.1/8 | 1/2 | 5556 |
| 1.3/4 | 1.1/4 | 3/4 | 6602 |
| 2 | 1.3/8 | 3/4 | 7506 |
| 2.1/4 | 1.1/2 | 1 | 9050 |
| 2.1/2 | 1.5/8 | 1 | 10526 |
| 2.3/4 | 1.5/8 | 1 | 11966 |
| 3 | 1.3/4 | 1.1/4 | 13930 |
| 3.1/2 | 1.7/8 | 1.1/4 | 17370 |
| 4 | 2.1/4 | 1.1/2 | 25545 |
| 4.1/2 | 2.1/4 | 1.1/2 | 30628 |
| 5 | 2.1/4 | 1.1/2 | 39967 |
| 5.1/2 | 2.1/4 | 2 | 46753 |
| 6 | 2.1/4 | 2 | 53922 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

HSS HAND AND SHORT MACHINE TAPS (COARSE PITCH) - NON SERIAL IS 6175: 1992 :PART I ,PART II & PART III AND HSS NUT TAPS - IS : 6175 - 1991 (PART V) (6H TOLERANCE)

| NOM DIA X PITCH | PRICE Rs. / EACH | | | | | | | |
|-----------------|------------------|------------|---------------|---------------|------------|---------------|---------------|----------|
| | PART I | PART II | | | PART III | | | NUT TAPS |
| | STR FLUTES | STR FLUTES | SPIRAL POINT* | SPIRAL FLUTES | STR FLUTES | SPIRAL POINT* | SPIRAL FLUTES | |
| M2.0x0.40 | 601 | | | | | | | |
| M2.2x0.45 | 601 | | | | | | | |
| M2.3x0.40 | 601 | | | | | | | |
| M2.5x0.45 | 601 | | | | | | | |
| M3x0.5 | | 364 | 460 | 497 | 398 | 501 | 586 | |
| M3.5x0.6 | | 364 | 460 | 497 | 398 | 501 | 586 | |
| M4x0.7 | | 364 | 460 | 497 | 398 | 501 | 586 | |
| M4.5x0.75 | | 393 | 484 | 528 | 422 | 528 | 593 | |
| M5x0.8 | | 392 | 484 | 528 | 422 | 528 | 593 | |
| M6x1.0 | | 392 | 484 | 528 | 432 | 544 | 597 | 832 |
| M8x1.25 | | 463 | 562 | 613 | 488 | 620 | 704 | 939 |
| M10x1.5 | | 568 | 699 | 760 | 573 | 765 | 836 | 1248 |
| M12x1.75 | | | | | 887 | 1071 | 1200 | 1925 |
| M14x2.00 | | | | | 1258 | 1555 | 1832 | 2677 |
| M16x2.00 | | | | | 1258 | 1555 | 1832 | 2677 |
| M18x2.5 | | | | | 2037 | 2453 | 2788 | 4296 |
| M20x2.5 | | | | | 2597 | 3108 | 3743 | 5737 |
| M22x2.5 | | | | | 2781 | 3313 | 3890 | 5869 |
| M24x3.0 | | | | | 3056 | 3689 | 4221 | 6613 |
| M25x3.0 | | | | | 3781 | | | 7890 |
| M27x3.0 | | | | | 4698 | | | 10139 |
| M30x3.5 | | | | | 5260 | | | 12645 |
| M33x3.5 | | | | | 6400 | | | 13958 |
| M36x4.0 | | | | | 8902 | | | 18056 |
| M39x4.0 | | | | | 10449 | | | 21752 |
| M42x4.5 | | | | | 12193 | | | 25654 |
| M45x4.5 | | | | | 16406 | | | 30936 |
| M48x5.00 | | | | | 17491 | | | 36531 |
| M52x5.0 | | | | | 21960 | | | |
| M56x5.5 | | | | | 31250 | | | |
| M60x5.5 | | | | | 32935 | | | |
| M64x6.0 | | | | | 34639 | | | |
| M68x6.0 | | | | | 43224 | | | |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/-NETT OR MOQ OF 5 NOS. PER SIZE. WHICHEVER IS HIGHER.

NOTES :

- Sizes upto M 10 will be supplied as per Part II unless otherwise specified.
- A Set Consist of Taper, Second & Bottoming.
- Serial Taps can be supplied at the same price.
- Left Hand Taps at 25% Extra.
- For M35 = 40% & M42 = 80% extra

IMPORTANT NOTES : (NUT TAPS - MOQ)

UPTO M10 (50 NOS EACH) OVER M10 - M28 (25 NOS EACH) OVER M28 - M35 (15 NOS EACH) OVER M35 (10 NOS EACH)

HSS HAND AND SHORT MACHINE TAPS (FINE PITCH) - NON SERIAL IS 6175 : 1992 : (6H TOL) PART II & PART III (6H-TOL) AND HSS NUT TAPS - IS : 6175 - 1991 (PART V)

PRICE Rs. / EACH

| NOM DIA X PITCH | PART II | | | PART III | | | NUT TAPS |
|-----------------|------------|---------------|---------------|------------|---------------|---------------|----------|
| | STR FLUTES | SPIRAL POINT* | SPIRAL FLUTES | STR FLUTES | SPIRAL POINT* | SPIRAL FLUTES | |
| M3.0x0.35 | 538 | 724 | | | | | |
| M3.5x0.35 | 538 | 724 | | | | | |
| M4x0.5 | 538 | 655 | | | | | |
| M4.5x0.5 | 528 | 655 | | | | | |
| M5x0.5 | 528 | 638 | | | | | |
| M6x0.75 | 534 | 724 | 686 | 590 | 643 | 762 | 940 |
| M7x0.75 | 618 | 724 | 815 | 618 | 736 | | 1195 |
| M8x0.75 | | | | | | | |
| M8x1.0 | 559 | 668 | 732 | 618 | 676 | 812 | 1083 |
| M9x1.0 | | | | | | | |
| M10x1.0 | 636 | 767 | 880 | 712 | 769 | 972 | 1427 |
| M10x1.25 | 636 | 767 | 880 | 712 | 769 | 972 | 1427 |
| M12x1.0 | | | | | | | 2241 |
| M12x1.25 | | | | 1035 | 1176 | 1389 | 2241 |
| M12x1.5 | | | | 1035 | 1176 | 1389 | 2241 |
| M14x1.0 | | | | | | | 3341 |
| M14x1.25 | | | | 1323 | 1582 | 1907 | 3341 |
| M14x1.5 | | | | 1277 | 1582 | 1850 | 3341 |
| M16x1.0 | | | | | | | 3341 |
| M16x1.5 | | | | 1277 | 1582 | 1857 | 3341 |
| M18x1.0 | | | | | | | 4963 |
| M18x1.5 | | | | 2316 | 2597 | 3111 | 4963 |
| M18x2.0 | | | | 2316 | 2597 | 3111 | 4963 |
| M20x1.5 | | | | 2891 | 3252 | 3976 | 6363 |
| M20x2.0 | | | | 2891 | 3252 | 3976 | 6363 |
| M22x1.5 | | | | 3131 | 3562 | 4358 | 6753 |
| M22x2.0 | | | | 3131 | 3562 | 4358 | 6753 |
| M24x1.5 | | | | 3497 | 3922 | 4834 | 8032 |
| M24x2.0 | | | | 3497 | 3922 | 4834 | 8032 |
| M25x1.5 | | | | 3746 | | | 9032 |
| M25x2.0 | | | | 3746 | | | |
| M26x1.5 | | | | 3906 | | | |
| M26x2.0 | | | | 3906 | | | |
| M27x1.5 | | | | 5245 | | | 11380 |
| M27x2.0 | | | | 5245 | | | |
| M28x1.5 | | | | 5245 | | | 14171 |
| M28x2.0 | | | | 5245 | | | |
| M30x1.5 | | | | 5901 | | | 14171 |
| M30x2.0 | | | | 5901 | | | 14171 |
| M30x3.0 | | | | 5901 | | | |
| M32x1.5 | | | | 6254 | | | |
| M32x2.0 | | | | 6254 | | | |
| M33x1.5 | | | | 7204 | | | |
| M33x2.0 | | | | 7204 | | | 15715 |
| M33x3.0 | | | | 7204 | | | |

HSS HAND & SHORT MACHINE TAPS (FINE PITCH) NON SERIAL IS : 6175 : 1992 : PART III (6H-TOL)

PRICE Rs. / EACH

| NOM DIA X PITCH | STRAIGHT FLUTES |
|-----------------|-----------------|
| M35x1.5 | 9988 |
| M36x1.5 | 9988 |
| M36x2.0 | 9988 |
| M36x3.0 | 9988 |
| M39x1.5 | 12440 |
| M39x2.0 | 12440 |
| M39x3.0 | 12440 |
| M42x1.5 | 13781 |
| M42x2.0 | 13781 |
| M42x3.0 | 13781 |
| M42x4.0 | 13781 |
| M45x1.5 | 19178 |
| M45x2.0 | 19178 |
| M45x3.0 | 19178 |
| M45x4.0 | 19178 |
| M48x1.5 | 19918 |
| M48x2.0 | 19918 |
| M48x3.0 | 19918 |
| M48x4.0 | 19918 |
| M50x1.5 | 22046 |
| M50x2.0 | 22046 |
| M50x3.0 | 22046 |
| M52x1.5 | 24805 |
| M52x2.0 | 24805 |
| M52x3.0 | 24805 |
| M52x4.0 | 24805 |
| M56x1.5 | 34019 |
| M56x2.0 | 34019 |
| M56x3.0 | 34019 |
| M56x4.0 | 34019 |
| M60x1.5 | 35980 |
| M60x2.0 | 35980 |
| M60x3.0 | 36635 |
| M60x4.0 | 36635 |
| M64x1.5 | 38464 |
| M64x2.0 | 38464 |
| M64x3.0 | 38989 |
| M64x4.0 | 38989 |
| M68x1.5 | 48672 |
| M68x2.0 | 48672 |
| M68x3.0 | 49063 |
| M68x4.0 | 49063 |
| M72x6.0 | 58321 |
| M76x6.0 | 71185 |
| M80x6.0 | 86156 |
| M85x6.0 | 106043 |
| M90x6.0 | 132498 |
| M95x6.0 | 166768 |
| M100x6.0 | 206035 |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/-NETT OR MOQ OF 5 NOS. PER SIZE. WHICHEVER IS HIGHER.

NOTES :

- Sizes upto M 10 will be supplied as per Part II unless otherwise specified.
- Serial Taps can be supplied at the same price.
- A Set Consist of Taper & Bottoming.
- Left Hand Taps at **25% Extra**.
- For **M35 = 40% & M42 = 80% extra**

NOTE: (NUT TAPS - MOQ)

- UPTO M10 - (50 NOS EACH)
 OVER M10 - M28 (25 NOS EACH)
 OVER M28 - M35 (15 NOS EACH)
 OVER M35 (10 NOS EACH)

**HSS LONG SHANK MACHINE TAPS (COARSE PITCH)
IS 6175 : 1991 : PART IV (6H - TOL)**

| PRICE Rs. / EACH | | | |
|------------------|-------------------------------|-----------------------|------------------------|
| NOM DIA X PITCH | STR FLUTES TYPE 'A', 'C', 'D' | SPIRAL POINT TYPE 'B' | SPIRAL FLUTES TYPE 'C' |
| M3x0.5 | 798 | 921 | 935 |
| M4x0.7 | 798 | 921 | 935 |
| M5x0.8 | 577 | 676 | 704 |
| M6x1.0 | 617 | 726 | 763 |
| M8x1.25 | 668 | 798 | 825 |
| M10x1.5 | 847 | 972 | 1034 |
| M12x1.75 | 1183 | 1374 | 1506 |
| M14x2.0 | 1703 | 1981 | 2281 |
| M16x2.0 | 1703 | 1981 | 2281 |
| M18x2.5 | 2632 | 3042 | 3430 |
| M20x2.5 | 3270 | 3757 | 4086 |
| M22x2.5 | 3632 | 4221 | 4115 |
| M24x3.0 | 4010 | 4685 | 5109 |
| M27x3.0 | 5842 | | |
| M30x3.5 | 6627 | | |
| M33x3.5 | 7815 | | |
| M36x4.0 | 10532 | | |
| M39x4.0 | 12321 | | |
| M42x4.5 | 14424 | | |
| M45x4.5 | 18927 | | |
| M48x5.0 | 21211 | | |
| M52x5.0 | 24533 | | |
| M56x5.5 | 32528 | | |
| M60x5.5 | 37267 | | |
| M64x6.0 | 42043 | | |
| M68x6.0 | 58596 | | |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/-NETT OR MOQ OF 5 NOS. PER SIZE. WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

IMPORTANT NOTES :

MACHINE TAPS

Type 'A' - 5 Deg Taper angle with Longer taper lead

Type 'B' - 10 Deg Taper angle with Spiral point

Type 'C' - 20 Deg Taper angle with Shorter taper lead

Type 'D' - 10 Deg Taper angle without Spiral point

**HSS LONG SHANK MACH. TAPS TO DIN - 2183
BSW / UNC / BSF / UN / NF (TYPE A, B & C)**

| SIZE INCH | PRICE (Rs.) EACH TYPE 'A' & 'C' | PRICE (Rs.) EACH TYPE 'B' |
|-----------|---------------------------------|---------------------------|
| 1/8 | 564 | 659 |
| 3/16 | 620 | 707 |
| 1/4 | 629 | 748 |
| 5/16 | 730 | 847 |
| 3/8 | 878 | 1105 |
| 7/16 | 1044 | 1235 |
| 1/2 | 1238 | 1426 |
| 5/8 | 1815 | 2097 |
| 3/4 | 2379 | 3252 |
| 7/8 | 3813 | 4261 |
| 1 | 4776 | 5039 |
| 1.1/8 | 6365 | 6815 |
| 1.1/4 | 7675 | 8290 |
| 1.1/2 | 11962 | 12504 |
| 1.3/8 | 11962 | 12504 |
| 1.5/8 | 14291 | 14852 |
| 1.3/4 | 16597 | 17194 |
| 1.7/8 | 20278 | 20822 |
| 2 | 23971 | 24494 |

**HSS LONG SHANK MACHINE TAPS (FINE PITCH)
IS 6175 : 1991 : PART IV : (6H -TOL)**

PRICE Rs. / EACH

| NOM DIA X PITCH | STRAIGHT FLUTES TYPE 'A', 'C', 'D' | SPIRAL POINT TYPE 'B' |
|-----------------|------------------------------------|-----------------------|
| M3x0.35 | 1083 | 1163 |
| M3.5x0.35 | 1083 | 1163 |
| M4x0.5 | 1083 | 1163 |
| M4.5x0.5 | 701 | 823 |
| M5x0.5 | 701 | 823 |
| M6x0.75 | 701 | 823 |
| M7x0.75 | 802 | 929 |
| M8x1.0 | 737 | 879 |
| M10x1.0 | 887 | 1027 |
| M10x1.25 | 902 | 1044 |
| M12x1.25 | 1285 | 1484 |
| M12x1.5 | 1285 | 1484 |
| M14x1.25 | 1681 | 1988 |
| M14x1.5 | 1681 | 1988 |
| M16x1.5 | 1646 | 2025 |
| M18x1.5 | 2895 | 3514 |
| M18x2.0 | 2895 | 3514 |
| M20x1.5 | 3785 | 4469 |
| M20x2.0 | 3785 | 4469 |
| M22x1.5 | 3925 | 4641 |
| M22x2.0 | 3925 | 4641 |
| M24x1.5 | 4386 | 5174 |
| M24x2.0 | 4386 | 5174 |
| M25x1.5 | 5584 | 6599 |
| M25x2.0 | 5584 | 6599 |
| M26x1.5 | 5708 | 6738 |
| M26x2.0 | 5708 | 6738 |
| M27x1.5 | 6879 | 7863 |
| M27x2.0 | 6879 | 7863 |
| M28x1.5 | 7478 | 8527 |
| M28x2.0 | 7478 | 8527 |
| M30x1.5 | 7741 | |
| M30x2.0 | 7741 | |
| M30x3.0 | 7741 | |
| M32x1.5 | 8502 | |
| M32x2.0 | 8502 | |
| M33x1.5 | 9363 | |
| M33x2.0 | 9363 | |
| M33x3.0 | 9363 | |
| M35x1.5 | 13088 | |
| M36x1.5 | 13088 | |
| M36x2.0 | 13088 | |
| M36x3.0 | 13088 | |
| M39x1.5 | 16092 | |
| M39x2.0 | 16092 | |
| M39x3.0 | 16092 | |
| M40x1.5 | 17205 | |
| M40x2.0 | 17205 | |
| M40x3.0 | 17205 | |
| M42x1.5 | 17718 | |
| M42x2.0 | 17718 | |
| M42x3.0 | 17718 | |
| M42x4.0 | 17718 | |
| M45x1.5 | 24701 | |
| M45x2.0 | 24701 | |
| M45x3.0 | 24701 | |
| M45x4.0 | 24701 | |
| M48x1.5 | 26036 | |

| HSS LONG SHANK MACHINE TAPS (FINE PITCH) IS 6175 : 1991 : PART IV : (6H -TOL) PRICE Rs. / EACH | |
|--|---------------------------------------|
| NOM DIA X PITCH | STRAIGHT FLUTES TYPE 'A', 'C', 'D' |
| M48x2.0 | 26036 |
| M48x3.0 | 26036 |
| M48x4.0 | 26036 |
| M50x1.5 | 30093 |
| M50x2.0 | 30093 |
| M50x3.0 | 30093 |
| M52x1.5 | 32187 |
| M52x2.0 | 32187 |
| M52x3.0 | 32187 |
| M52x4.0 | 32187 |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/- NETT OR MOQ OF 5 NOS. PER SIZE. WHICHEVER IS HIGHER.

HSS PIPE TAPS
NPS NPT NPSF - BS : 949 - 1969
BSP BS : 949 - 1957
BSPT BS : 949 PART III - 1982

| TAP SIZE | PRICE Rs. / EACH | | | | | |
|-------------|------------------|-------|------|--------------|--------|-------|
| | PARALLEL THREAD | | | TAPER THREAD | | |
| | INCH | BSP | NPS | NPSF | BSPT | NPT |
| 1/16 | | | | | 743 | 743 |
| 1/8 | 607 | 690 | 836 | 776 | 801 | 955 |
| 1/4 | 948 | 1195 | 1474 | 1390 | 1458 | 1800 |
| 3/8 | 1397 | 1469 | 1820 | 1838 | 1925 | 2179 |
| 1/2 | 2036 | 2188 | 2647 | 2642 | 2773 | 3141 |
| 5/8 | 2304 | - | - | - | - | - |
| 3/4 | 3281 | 3442 | 4233 | 4293 | 4356 | 5034 |
| 7/8 | 4093 | - | - | - | - | - |
| 1 | 5157 | 5746 | 7027 | 6673 | 6850 | 7830 |
| 1.1/4 | 7745 | 9053 | - | 9782 | 9904 | 11535 |
| 1.1/2 | 9665 | 11187 | - | 11997 | 12790 | - |
| 1.3/4 | 14784 | - | - | - | - | - |
| 2 | 17349 | 19992 | - | 21076 | 22150 | - |
| 2.1/4 | 30008 | - | - | - | - | - |
| 2.1/2 | 43296 | - | - | 63194 | 64183 | - |
| 2.3/4 | 48319 | - | - | - | - | - |
| 3 | 56096 | - | - | 82682 | 83354 | - |
| 3.1/2 | 73008 | - | - | 108986 | 109173 | - |
| 4 | 91771 | - | - | 137379 | 139920 | - |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/- NETT OR MOQ OF 5 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra
IMPORTANT NOTES :
BSP(P), BSP(T), NPS NPT NPTS NPTF
A set consists of 2 Taps (Taper & Bottoming)
we can also supply BSP (P) Taps to new
BS 949:Part - III- 1982 (G Series) at the same rate as per order.

**HSS HAND TAPS BA - BS : 949 : 1969 AND HSS NUT
TAPS BA - BA : 949 :1969**

| SIZE BA | PRICE (Rs) EACH | | |
|------------|--------------------|-----------------|-------------|
| | STRAIGHT FLUTES | SPIRAL POINT | NUT TAPS |
| 0 | 448 | 561 | 915 |
| 1 | 448 | 561 | 915 |
| 2 | 381 | 510 | 794 |
| 3 | 381 | 510 | 794 |
| 4 ★ | 381 | 510 | 794 |
| 5 | 381 | 510 | 878 |
| 6 | 422 | 548 | 973 |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/- NETT OR MOQ OF 50 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

**HSS GROUND THREAD TAPS :
STANDARD HAND & SHORT MACHINE TAPS :
B.S.B.(BRITISH STANDARD BRASS) WHITWORTH FORM
B.S.CY.(BRITISH STANDARD CYCLE) 60° THREAD FORM
B.S. 949 - 1969**

| B. S. CY SIZE INCH | TPI | PRICE (Rs) EACH | |
|-----------------------|-----|-----------------|----------------|
| | | STR. FLUTES | SPIRAL POINTED |
| 3/16 | 32 | 428 | 524 |
| 1/4 | 26 | 462 | 534 |
| 5/16 | 26 | 577 | 657 |
| 3/8 | 26 | 701 | 801 |
| 7/16 | 26 | 880 | 1057 |
| 1/2 | 26 | 1090 | 1271 |
| 9/16 | 26 | 1744 | 1927 |
| 1 | 24 | 3633 | - |
| 1.370 | 24 | 7679 | - |

| B. S. B SIZE INCH | TPI | PRICE (Rs) EACH | |
|----------------------|-----|-----------------|----------------|
| | | STR. FLUTES | SPIRAL POINTED |
| 1/4 | 26 | 449 | 527 |
| 5/16 | 26 | 594 | 678 |
| 3/8 | 26 | 678 | 778 |
| 7/16 | 26 | 900 | 1071 |
| 1/2 | 26 | 1109 | 1291 |
| 9/16 | 26 | 1730 | 1905 |
| 5/8 | 26 | 1730 | - |
| 3/4 | 26 | 2352 | - |
| 1 | 26 | 3620 | - |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 15 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

**HSS GROUND THREAD TAPS :
STANDARD HAND & SHORT MACHINE TAPS :
B.S. CON (BRITISH STANDARD CONDUIT) WHITWORTH FORM
B.S. : 949 --1969 (ZONE - 3)**

| B. S. CON SIZE INCH | TPI | PRICE (Rs) EACH | |
|------------------------|-----|-----------------|----------------|
| | | STR. FLUTES | SPIRAL POINTED |
| 1/2 | 18 | 1164 | 1164 |
| - | - | - | - |
| 5/8 | 18 | 1780 | - |
| 3/4 | 16 | 2473 | - |
| 1 | 16 | 3856 | - |
| 1.1/4 | 16 | 5599 | - |
| - | - | - | - |
| 1.1/2 | 14 | 8955 | - |
| 2 | 14 | 15656 | - |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NET OR 10 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

| PRICES FOR LPG CYLINDER 3/4 NGT TAPS : | | EACH (Rs.) |
|--|--|---------------|
| 1. 3/4" - 14 NGT tap interrupted 5 flutes to our Drg.No. M22 - 531 | | 5558 |
| 2. 3/4" - 14 NGT tap interrupted 5 flutes to our Drg.No. M22 - 574 | | 6119 |
| 3. 3/4" - 14 NGT tap interrupted 5 flutes to our Drg.No. M22 - 535 | | 5312 |
| 4. 3/4" - 14 NGT tap NON-interrupted 4 flutes to our Drg.No. M22 - 535 | | 4248 |

| PRICES FOR LPG CYLINDER BSGT TAPS : | | EACH (Rs.) |
|---|--|---------------|
| 0.715" x 14 TPI - BSGT Tap Interrupted 5 flutes to our Drg. No. SKT-012 | | 6239 |
| 0.715" x 14 TPI -BSGT Tap NON-Interrupted 4 flutes to our Drg. No. SKT- 012 | | 5443 |

IMPORTANT NOTE :
ALL NGT & BSGT TAPS ARE SUBJECT TO ORDER VALUE BEING MINIMUM OF Rs. 50,000/- NETT. OR 15 NOS. PER SIZE WHICHEVER IS HIGHER.

**Prices for all TiN and TiAlN Taps will
be given on specific request.**

**HSS HAND TAPS BSW ,BSF,UNC,UNF AND
HSS NUT TAPS BS : 949 : 1969**

| SIZE INCH | PRICE (Rs) EACH | | | |
|------------------|--------------------|-----------------|------------------|-------------|
| | STRAIGHT FLUTES | SPIRAL POINT | SPIRAL FLUTES | NUT TAPS |
| 1/8 | 382 | 456 | | |
| 3/16 | 382 | 469 | | 823 |
| 1/4 | 396 | 476 | 554 | 933 |
| 5/16 | 448 | 555 | 614 | 1168 |
| 3/8 | 545 | 668 | 761 | 1540 |
| 7/16 | 697 | 860 | 1000 | 1909 |
| 1/2 | 882 | 1059 | 1221 | 2652 |
| 9/16 | 1277 | 1557 | 1878 | 2652 |
| 5/8 | 1277 | 1557 | 1878 | 3442 |
| 11/16 | | | | 3614 |
| 3/4 | 2021 | 2420 | 2862 | 4248 |
| 7/8 | 2788 | 3358 | 3910 | 5819 |
| 1 | 3526 | 4074 | 4676 | 7568 |
| 1.1/8 | 4774 | | | 10191 |
| 1.1/4 | 5739 | | | 12632 |
| 1.3/8 | 7412 | | | 15033 |
| 1.1/2 | 8898 | | | 18014 |
| 1.5/8 (BSF ONLY) | 10484 | | | 20275 |
| 1.3/4 | 12332 | | | 25340 |
| 2 | 17489 | | | 36113 |
| 2.1/4 | 26072 | | | |
| 2.1/2 | 34306 | | | |
| 2.3/4 | 42796 | | | |
| 3 | 57464 | | | |

ITEM MARKED ★ ARE EX-STOCK ITEMS ALL REMAINING ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF RS. 50,000/- NETT OR MOQ OF 50 NOS. PER SIZE. WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra

IMPORTANT NOTES :

A Set Consist of Taper, Second & Bottoming.

**HSS NIB TAPS (CORSE PITCH)
TO OUR STANDARD**

| NOM DIA X PITCH | STRIGHT FLUTES PRICE (Rs.) EACH |
|--------------------|------------------------------------|
| M4x0.7 | 538 |
| M5x0.8 | 577 |
| M6x1.0 | 643 |
| M8x1.25 | 672 |
| M10x1.5 | 846 |
| M12x1.75 | 991 |
| M14x2.0 | 1720 |
| M16x2.0 | 1720 |
| M18x2.5 | 2833 |
| M20x2.5 | 3788 |
| 1/8" BSW | 576 |
| 5/32" BSW | 588 |
| 3/16" BSW | 588 |
| 1/4" BSW | 600 |
| 5/16" BSW | 672 |
| 3/8" BSW | 846 |
| 7/16" BSW | 1187 |
| 1/2" BSW | 1187 |
| 9/16" BSW | 1720 |
| 5/8" BSW | 1720 |

ALL ABOVE ITEMS WILL ATTRACT MINIMUM ORDER VALUE OF Rs. 50,000/- NETT OR 25 NOS. PER SIZE WHICHEVER IS HIGHER.

For M35 = 40% & M42 = 80% extra



**HSS (M42) NINJA SERIES TAPS
TO IS : 6175 - PART - II & PART - III**

Price (Rs.) Each

| | NOM DIA X PITCH | IS 6175 - PART II & III | | | | |
|-------------------------|-----------------|-------------------------|--------|-----------|-----------|--------------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| Bright / Steam Tempered | M3 X 0.5 | 841 | 943 | 700 | | |
| | M4 X 0.7 | 841 | 943 | 700 | | |
| | M5 X 0.8 | 879 | 995 | 738 | | |
| | M6 X 1.0 | 879 | 995 | 738 | | |
| | M8 X 1.25 | 735 | 1427 | 813 | | |
| | M10 X 1.25 | | | | | |
| | M10 X 1.5 | 1215 | 1398 | 1012 | | |
| | M12 X 1.75 | 1906 | 2200 | 1613 | | |
| | M14 X 1.5 | 2609 | 2995 | 2172 | | |
| | M14 X 2.0 | 2595 | 2962 | 2156 | | |
| | M16 X 1.5 | 3796 | 2986 | 2170 | | |
| | M16 X 2.0 | 2595 | 2962 | 2156 | | |
| | Tin- Coating | M3 X 0.5 | 923 | 1037 | 765 | |
| M4 X 0.7 | | 923 | 1037 | 765 | | |
| M5 X 0.8 | | 964 | 1093 | 808 | | |
| M6 X 1.0 | | 964 | 1093 | 808 | | |
| M8 X 1.25 | | 1078 | 1232 | 894 | | |
| M10 X 1.25 | | | | | | |
| M10 X 1.5 | | 1333 | 1532 | 1108 | | |
| M12 X 1.75 | | 2087 | 2407 | 1768 | | |
| M14 X 1.5 | | 2859 | 3408 | 2381 | | |
| M14 X 2.0 | | 2843 | 3248 | 2365 | | |
| M16 X 1.5 | | 2854 | 3611 | 2377 | | |
| M16 X 2.0 | | 2843 | 3248 | 2365 | | |
| TiCN / Ti(AIN) | | M3 X 0.5 | 1004 | 1130 | 831 | |
| | M4 X 0.7 | 1004 | 1130 | 831 | | |
| | M5 X 0.8 | 1048 | 1188 | 877 | | |
| | M6 X 1.0 | 1048 | 1188 | 877 | | |
| | M8 X 1.25 | 1172 | 1342 | 971 | | |
| | M10 X 1.25 | | | | | |
| | M10 X 1.5 | 1446 | 1665 | 1205 | | |
| | M12 X 1.75 | 2271 | 2615 | 1921 | | |
| | M14 X 1.5 | 3106 | 3693 | 2585 | | |
| | M14 X 2.0 | 3090 | 3534 | 2568 | | |
| | M16 X 1.5 | 3102 | 3896 | 2583 | | |
| | M16 X 2.0 | 3090 | 3534 | 2568 | | |

HSS PARALLEL SHANK END MILL IS : 6353

| DIA (MM) | PANTHER PRICE (Rs.) EACH | NINJA PRICE (Rs.) EACH | IS : 6353 - 1991 | |
|-------------|--------------------------------|------------------------------|------------------|----------|
| | | | CEL (MM) | OAL (MM) |
| 3 ★ | 1133 | 1509 | 8 ★ | 40 |
| 4 ★ | 1133 | 1509 | 11 ★ | 43 |
| 5 ★ | 1133 | 1509 | 13 ★ | 47 |
| 6 ★ | 1265 | 1686 | 13 ★ | 57 |
| 7 ★ | 1422 | 1896 | 16 ★ | 60 |
| 8 ★ | 1422 | 1896 | 19 ★ | 63 |
| 9 ★ | 1422 | 1896 | 19 ★ | 69 |
| 10 ★ | 1422 | 1896 | 22 ★ | 72 |
| 11 ★ | 1422 | 1896 | 22 ★ | 79 |
| 12 ★ | 1469 | 1960 | 26 ★ | 83 |
| 14 | 1822 | 2429 | 26 ★ | 83 |
| 16 ★ | 2128 | 2837 | 32 ★ | 92 |
| 18 ★ | 2587 | 3450 | 32 ★ | 92 |
| 20 ★ | 2861 | 3815 | 38 ★ | 104 |
| 22 ★ | 3245 | 4328 | 38 ★ | 104 |
| 25 ★ | 3784 | 5047 | 45 ★ | 121 |
| 28 | 5387 | 7182 | 45 | 121 |
| 32 ★ | 6465 | 8621 | 53 ★ | 133 |
| 36 | 8514 | 11351 | 53 | 133 |

HSS - E PANTHER SERIES TAPS TO IS 6175 - PART - II PART - IV AND DIN-371 Price (Rs.) Each

HSS - E PANTHER SERIES TAPS TO IS 6175 PART - III, DIN-374 AND DIN-376 Price (Rs.) Each

| Bright / Steam Tempered | NOM DIA X PITCH | IS 6175 - PART II & DIN 371 | | | | |
|-------------------------|-----------------|-----------------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M3x0.5 | 629 | 704 | 523 | | |
| | M4x0.7 | 629 | 704 | 523 | 1100 | 1214 |
| | M5x0.8 | 656 | 743 | 551 | 1100 | 1214 |
| | M6x1.0 | 656 | 743 | 551 | 1100 | 1214 |
| | M8x1.0 | 873 | 1065 | 726 | 1527 | 1594 |
| | M8x1.25 | 735 | 840 | 607 | 1271 | 1330 |
| | M10x1.25 | 1052 | 1206 | 879 | 1555 | 1625 |
| | M10x1.5 | 906 | 1044 | 755 | 1555 | 1625 |
| | M12X1.75 | | | | | |
| | M14X2.0 | | | | | |
| | M16X1.5 | | | | | |
| | M16X2.0 | | | | | |

| Tin Coating | NOM DIA X PITCH | IS 6175 - PART II & DIN 371 | | | | |
|-------------|-----------------|-----------------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M3x0.5 | 689 | 774 | 570 | | |
| | M4x0.7 | 689 | 774 | 570 | 1186 | 1297 |
| | M5x0.8 | 719 | 816 | 602 | 1186 | 1297 |
| | M6x1.0 | 719 | 816 | 602 | 1186 | 1297 |
| | M8x1.0 | 941 | 1147 | 783 | 1625 | 1694 |
| | M8x1.25 | 805 | 919 | 668 | 1371 | 1428 |
| | M10x1.25 | 1154 | 1323 | 960 | 1674 | 1745 |
| | M10x1.5 | 995 | 1144 | 827 | 1636 | 1745 |
| | M12X1.75 | | | | | |
| | M14X2.0 | | | | | |
| | M16X1.5 | | | | | |
| | M16X2.0 | | | | | |

| Ticn / Ti (Al) N | NOM DIA X PITCH | IS 6175 - PART II & DIN 371 | | | | |
|------------------|-----------------|-----------------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M3x0.5 | 748 | 843 | 620 | | |
| | M4x0.7 | 748 | 843 | 620 | 1275 | 1386 |
| | M5x0.8 | 782 | 887 | 654 | 1275 | 1386 |
| | M6x1.0 | 782 | 887 | 654 | 1275 | 1386 |
| | M8x1.0 | 1012 | 1225 | 842 | 1725 | 1794 |
| | M8x1.25 | 875 | 1000 | 724 | 1469 | 1529 |
| | M10x1.25 | 1255 | 1438 | 1046 | 1795 | 1865 |
| | M10x1.5 | 1079 | 1242 | 899 | 1794 | 1865 |
| | M12X1.75 | | | | | |
| | M14X2.0 | | | | | |
| | M16X1.5 | | | | | |
| | M16X2.0 | | | | | |

| Bright / Steam Tempered | NOM DIA X PITCH | IS 6175 - PART IV | | | | |
|-------------------------|-----------------|-------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M6X1.0 | 1044 | | 869 | | |
| | M8X1.0 | | | | | |
| | M8X1.25 | 1110 | | 928 | | |
| | M10X1.25 | | | | | |
| | M10X1.5 | 1353 | | 1129 | | |
| | M12X1.75 | 1965 | | 1621 | | |
| | M14X2.0 | | | | | |
| | M16X1.5 | | | | | |
| | M16X2.0 | | | | | |

| Tin Coating | NOM DIA X PITCH | IS 6175 - PART IV | | | | |
|-------------|-----------------|-------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M6X1.0 | 1144 | | 953 | | |
| | M8X1.0 | | | | | |
| | M8X1.25 | 1215 | | 1013 | | |
| | M10X1.25 | | | | | |
| | M10X1.5 | 1481 | | 1238 | | |
| | M12X1.75 | 2150 | | 1773 | | |
| | M14X2.0 | | | | | |
| | M16X1.5 | | | | | |
| | M16X2.0 | | | | | |

| Ticn / Ti (Al) N | NOM DIA X PITCH | IS 6175 - PART IV | | | | |
|------------------|-----------------|-------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M6X1.0 | 1242 | | 1035 | | |
| | M8X1.0 | | | | | |
| | M8X1.25 | 1322 | | 1102 | | |
| | M10X1.25 | | | | | |
| | M10X1.5 | 1610 | | 1347 | | |
| | M12X1.75 | 2337 | | 1928 | | |
| | M14X2.0 | | | | | |
| | M16X1.5 | | | | | |
| | M16X2.0 | | | | | |

| Bright / Steam Tempered | NOM DIA X PITCH | IS 6175 - PART III | | | | |
|-------------------------|-----------------|--------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M3x0.5 | | | | | |
| | M4x0.7 | | | | | |
| | M5x0.8 | | | | | |
| | M6x1.0 | | | | | |
| | M8x1.0 | | | | | |
| | M8x1.25 | | | | | |
| | M10x1.25 | | | | | |
| | M10x1.5 | | | | | |
| | M12X1.75 | 1423 | 1640 | 1204 | | 2678 |
| | M14X2.0 | 1936 | 2210 | 1609 | | 3704 |
| | M16X1.5 | 1944 | 2229 | 1621 | | 3965 |
| | M16X2.0 | 1936 | 2210 | 1609 | | 3965 |
| | M18X2.5 | 2809 | 3210 | 2335 | | |
| | M20X1.5 | 4707 | 6119 | 4226 | | |
| | M20X2.5 | 3702 | 4230 | 3077 | | 7416 |

| Tin Coating | NOM DIA X PITCH | IS 6175 - PART III | | | | |
|-------------|-----------------|--------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M3x0.5 | | | | | |
| | M4x0.7 | | | | | |
| | M5x0.8 | | | | | |
| | M6x1.0 | | | | | |
| | M8x1.0 | | | | | |
| | M8x1.25 | | | | | |
| | M10x1.25 | | | | | |
| | M10x1.5 | | | | | |
| | M12X1.75 | 1557 | 1796 | 1319 | | 2813 |
| | M14X2.0 | 2121 | 2423 | 1765 | | 3946 |
| | M16X1.5 | 2130 | 2696 | 1773 | | 4208 |
| | M16X2.0 | 2121 | 2423 | 1765 | | 4208 |
| | M18X2.5 | 2989 | 3390 | 2514 | | |
| | M20X1.5 | 5335 | 6791 | 4750 | | |
| | M20X2.5 | 3944 | 4476 | 3321 | | 7672 |

| Ticn / Ti (Al) N | NOM DIA X PITCH | IS 6175 - PART III | | | | |
|------------------|-----------------|--------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M3x0.5 | | | | | |
| | M4x0.7 | | | | | |
| | M5x0.8 | | | | | |
| | M6x1.0 | | | | | |
| | M8x1.0 | | | | | |
| | M8x1.25 | | | | | |
| | M10x1.25 | | | | | |
| | M10x1.5 | | | | | |
| | M12X1.75 | 1694 | 1950 | 1433 | | 3029 |
| | M14X2.0 | 2306 | 2637 | 1918 | | 4189 |
| | M16X1.5 | 2315 | 2907 | 1928 | | 4451 |
| | M16X2.0 | 2306 | 2637 | 1918 | | 4451 |
| | M18X2.5 | 3166 | 3570 | 2692 | | |
| | M20X1.5 | 5963 | 7463 | 5272 | | |
| | M20X2.5 | 4187 | 4718 | 3564 | | 7929 |

| Bright / Steam Tempered | NOM DIA X PITCH | DIN 374 / DIN-376 | | | | |
|-------------------------|-----------------|-------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M6X1.0 | | | | | |
| | M8X1.0 | 1187 | 1595 | 1022 | 1887 | |
| | M8X1.25 | | | | | |
| | M10X1.25 | 1487 | 1820 | 1215 | 2308 | |
| | M10X1.5 | | | | | |
| | M12X1.75 | 1965 | 2636 | 1621 | | 3429 |
| | M14X2.0 | 2697 | 3611 | 2222 | | 4707 |
| | M16X1.5 | 2831 | 3718 | 2327 | | |
| | M16X2.0 | 2697 | 3611 | 2222 | | 4707 |
| | M18X2.5 | 4370 | 5682 | 3816 | | |
| | M20X1.5 | | | | | |
| | M20X2.5 | 5375 | 6986 | 4687 | | |

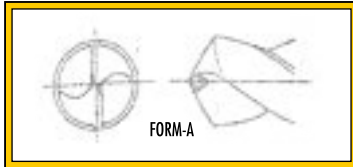
| Tin Coating | NOM DIA X PITCH | DIN 374 / DIN-376 | | | | |
|-------------|-----------------|-------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M6X1.0 | | | | | |
| | M8X1.0 | 1293 | 1716 | 1109 | 2022 | 2107 |
| | M8X1.25 | | | | | |
| | M10X1.25 | 1619 | 1969 | 1322 | 2470 | 2578 |
| | M10X1.5 | | | | | |
| | M12X1.75 | 2150 | 2850 | 1773 | | 3724 |
| | M14X2.0 | 2852 | 3768 | 2380 | | 4879 |
| | M16X1.5 | 3052 | 3804 | 2520 | | 5592 |
| | M16X2.0 | 2852 | 3768 | 2380 | | 4879 |
| | M18X2.5 | 4550 | 5860 | 3994 | | |
| | M20X1.5 | | | | | |
| | M20X2.5 | 5618 | 7229 | 3681 | | |

| Ticn / Ti (Al) N | NOM DIA X PITCH | DIN 374 / DIN-376 | | | | |
|------------------|-----------------|-------------------|--------|-----------|-----------|-----------------------|
| | | SPPT | Spiral | Cast Iron | Fluteless | Fluteless Oil Grooves |
| | M6X1.0 | | | | | |
| | M8X1.0 | 1398 | 1837 | 1197 | 2158 | 2242 |
| | M8X1.25 | | | | | |
| | M10X1.25 | 1746 | 2122 | 1429 | 2633 | 2738 |
| | M10X1.5 | | | | | |
| | M12X1.75 | 2337 | 3063 | 1928 | | 4018 |
| | M14X2.0 | 3010 | 3927 | 2537 | | 5048 |
| | M16X1.5 | 3302 | 3909 | 2731 | | 5880 |
| | M16X2.0 | 3010 | 3927 | 2537 | | 5048 |
| | M18X2.5 | 4728 | 6040 | 4172 | | |
| | M20X1.5 | | | | | |
| | M20X2.5 | 5861 | 7474 | 5173 | | |

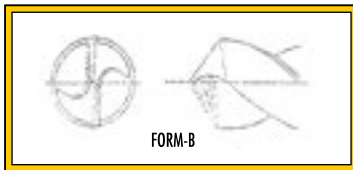
* MINIMUM ORDER VALUE OF RS. 50,000/- NETT OR MOQ10NOS. PER SIZE. WHICHEVER IS HIGHER.

* MINIMUM ORDER VALUE OF RS. 50,000/- NETT OR MOQ10NOS. PER SIZE. WHICHEVER IS HIGHER.

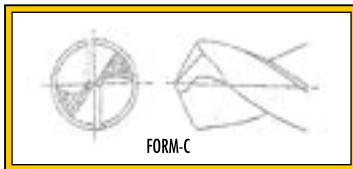
POINT ENHANCEMENT



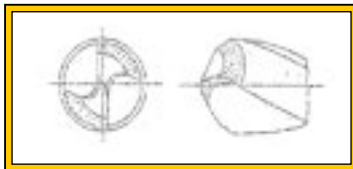
FORM A
Web thinning (thinned chisel)
Improves penetration
Ideal for long series



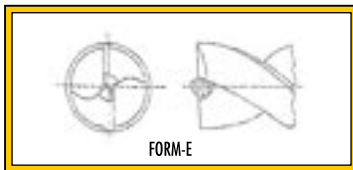
FORM B
Web thinned + Lips corrected
Optimized to heavy duty.
Ideal for deep hole drilling.



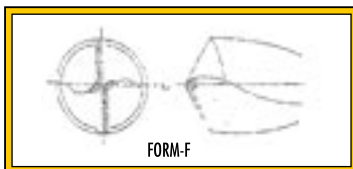
FORM C
Split point
Eases chip removal & penetration.
Ideal for crank shaft drilling.



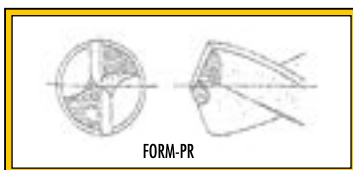
FORM D
Cast iron point
90 peripheral point + web thinning
Ideal for cast iron and abrasive plastics.



FORM E
Brad point
flat point + central drill
Ideal for sheet metal drilling.

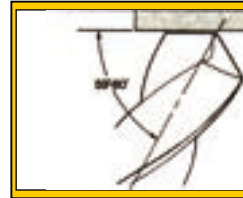


FORM 4F
Fusion of form A & B (Four faces)
A high performing point for long chips
Ideal for stainless & high nickel.



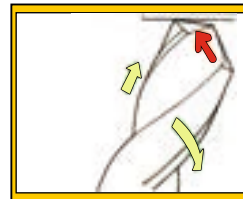
FORM R
Helical thinning
curls and breaks the chips.
Ideal for long chip type.

POINT GRINDING TECHNIQUES



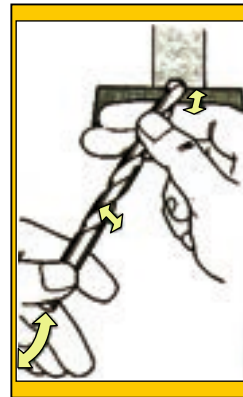
STEP - 1

Keep the cutting lip parallel to the grinding face
With an angle of 59° to the axis of drill body.



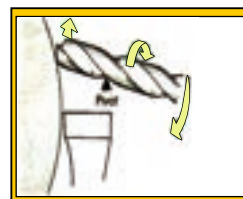
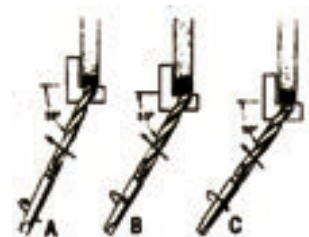
STEP - 2

Start grinding from the lip down to heelside.
Simultaneously rotate the drill clockwise.



STEP - 3

Gradually co-ordinate these three movements :
- Clockwise rotation of the drill point.
- Downward movement of shank-end of drill.
- Left swing movement of the shank-end.
59° to 55° and 50° by the end of grinding.



← SIDE VIEW of the point grinding



ITM Quick Guidelines for drilling different materials

| Material | Character | Point angle | Helix / Flute | Modification | Coolant | Speed | Feed | Remarks / Recommendations |
|--|------------------------|--------------|--------------------------|------------------|--------------------------------|----------------------|-------------------------------------|---|
| Carbon & Alloy Steels | Normalised / forged | 118° | Standard | None | Soluble Oil | 15 to 24 | 0.1 to 0.5 | Feed range for 5 mm to 25 mm dia. |
| | Cast | 118° | Standard | None | Soluble Oil | 15 to 21 | 0.1 to 0.5 | |
| Cast Iron | Grey / S.C. Iron | 90° / 118° | Standard | Web thinned | Compressed Air | 24 to 30 | 0.1 to 0.5 | Double point angle. Only carbide drills works on this. |
| | Malleable / Manganese | 90° / 118° | Standard | Web thinned | Compressed Air | 15 to 21 | 0.1 to 0.5 | |
| Manganese Steels | Tough | 130° | Slow | Web thinned | Dry | 3 to 3.5 | 0.04 to 0.1 | Apply feed before contact No use of punch / no interruption. |
| Stainless Steel | Austenitic | 135° | Quick | Split | Sulf / CI Sol Oil | 6 to 12 | 0.15 to 0.6 | Blued rigid / donot use punch. Feed range for 5 mm to 25 mm dia. |
| | Martensitic | 118° | Standard | Web thin | Soluble Oil | 12 to 18 | 0.1 to 0.5 | |
| Monel metal | Work hardening | 110° to 115° | Standard | Split | Soluble Oil | 6 to 15 | 0.15 to 0.6 | Use Thick web / Short / Rigid Drill |
| | Work hardening | 110° to 115° | Standard | Split | Soluble Oil | 3 to 6 | 0.15 to 0.6 | |
| (rotary drill) Copper (stationary drill) | Soft | 100° | Quick / Wide | None | Soluble Oil | 30 to 46 | 0.1 to 0.5 | Point angle as per chip behaviour. |
| | Hard | 130° | Quick / Wide as above | None | Soluble Oil | 21 to 30 30 to 46 | 0.1 to 0.5 | |
| Bronze / Brass | Cast & naval | 118° | Slow / Wide | Ground lip | Soluble Oil | 30 to 60 | 0.1 to 0.5 | Short chips / Lip grd. For large size Continuous long chips type |
| | Yellow brass | 118° | Standard | None | Soluble Oil | 30 to 60 21 to 30 | 0.1 to 0.5 | |
| Magnesium & Alloys | Free cutting | 118° | Standard | None | Soluble Oil | 60 to 90 | 0.1 to 0.5 | Dia cast alloys. |
| | Long chip / Short chip | 130° / 100° | Quick / Standard | None | Paraffin / Lard Oil / Kerosene | 30 to 60 | 0.1 to 0.5 | |
| Aluminium | Poor conductivity | 118° to 140° | Web thinned | Copious Sol. Oil | 4.5 to 9 | 0.05 to 0.3 | Thick web / obtuse angle to larger. | Pure aluminium Alloys and high silicon grades, M35. |
| | Thermoplastics | 130° to 140° | Quick | Soap Soln. | 6 to 45 | 0.2 to 0.5 | Speed / Feed by material (PVC/CA) | |
| Plastics | Thermosetting | 60° to 90° | Slow | None | Dry | 27 to 45 | 0.1 to 0.5 | Powdery abrasive matl. (Backelite) |
| | Masonry / Concrete | Std. | Standard | None | Dry | 21 to 30 | 0.2 to 0.5 | Use Masonary Drills / Carbide Tip. |

* Only popular material addressed in this chart, others may be related according to characteristics.

SPEED & FEEDS FOR H.S.S. DRILLS

| Work-Pieces Material | Drill Diameter mm | | | | | | | | | |
|----------------------|-------------------|-------|-------|------|------|------|------|------|------|-----|
| | 1 | 2 | 5 | 8 | 12 | 16 | 25 | 40 | 63 | |
| Steel | f | HAND | 0.05 | 0.12 | 0.2 | 0.25 | 0.3 | 0.4 | 0.4 | 0.5 |
| *45 Kg mm2 | n | 12000 | 6000 | 2400 | 1500 | 1000 | 750 | 480 | 300 | 190 |
| Steel | f | HAND | 0.05 | 0.12 | 0.2 | 0.25 | 0.3 | 0.4 | 0.4 | 0.5 |
| *45-70 Kg mm2 | n | 10000 | 5000 | 2100 | 1300 | 850 | 640 | 410 | 260 | 165 |
| Steel | f | HAND | 0.04 | 0.1 | 0.15 | 0.2 | 0.25 | 0.3 | 0.3 | 0.4 |
| *above 70 Kg mm2 | n | 8000 | 4000 | 1600 | 995 | 680 | 500 | 318 | 200 | 125 |
| Alloy Steel | f | HAND | HAND | 0.06 | 0.1 | 0.15 | 0.2 | 0.3 | 0.3 | 0.3 |
| *above 100 Kg mm2 | n | 3650 | 1840 | 735 | 455 | 305 | 230 | 145 | 90 | 60 |
| Cast Iron | f | HAND | 0.07 | 0.12 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.6 |
| *above 18 Kg mm2 | n | 8000 | 4000 | 1600 | 1000 | 660 | 500 | 320 | 200 | 127 |
| Cast Iron | f | HAND | HAND | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.6 |
| *above 18-30 Kg mm2 | n | 3180 | 1600 | 635 | 400 | 265 | 200 | 130 | 80 | 50 |
| Mang Steel | f | HAND | HAND | 0.05 | 0.08 | 0.1 | 0.1 | 0.15 | 0.2 | 0.2 |
| *above 15% | n | 1300 | 650 | 255 | 160 | 110 | 80 | 50 | 32 | 20 |
| Stainless Steel | f | HAND | HAND | 0.05 | 0.1 | 0.12 | 0.15 | 0.2 | 0.2 | 0.3 |
| Brass - Brittle | f | HAND | 1400 | 570 | 360 | 240 | 180 | 110 | 70 | 45 |
| Brass - Ductile | n | 2800 | 1400 | 500 | 300 | 200 | 140 | 90 | 55 | 35 |
| Copper & Zine alloy | f | HAND | 0.08 | 0.12 | 0.25 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 |
| Aluminium Long | n | 28000 | 14000 | 5700 | 3600 | 2400 | 1800 | 1100 | 700 | 450 |
| Aluminium Short | n | 17500 | 8700 | 3500 | 2200 | 1500 | 1100 | 700 | 440 | 280 |
| Chipfeed | f | HAND | 0.04 | 0.14 | 0.18 | 0.22 | 0.25 | 0.3 | 0.45 | 0.5 |
| Chipped | n | 16000 | 8000 | 3200 | 2000 | 1325 | 1000 | 650 | 400 | 250 |
| Chipped | f | HAND | 0.05 | 0.14 | 0.2 | 0.25 | 0.3 | 0.4 | 0.45 | 0.5 |
| Aluminium Short | n | 32000 | 16000 | 6350 | 4000 | 2650 | 2000 | 1280 | 800 | 500 |
| Chipped | f | HAND | 0.06 | 0.16 | 0.25 | 0.35 | 0.4 | 0.5 | 0.65 | 0.7 |
| Chipped | n | 38000 | 19000 | 7600 | 4800 | 3200 | 2400 | 1520 | 1000 | 600 |

TROUBLE SHOOTING (DRILLS)

| PROBLEM | CAUSES | REMEDIES |
|-----------------------------|---|--|
| 1 Oversize hole | 1. Unequal lip angles 2. Unequal lip lengths | Regrind drill point to correct angle with proper relief |
| 2 Irregular & poor finish | 1. Loose hold. 2. Chocking of chips 3. Excessive feed rate | Check the holder and run-out Increase the force & volume of coolant. Decrease the feed rate. |
| 3 Bucking of the drill | Axial deflection of drill | Use correct guide bushes. |
| 4 Chattering of drill | 1. Hard/tough workpiece 2. Torsional deflection | Use a shorter drill with thick web to improper sturdiness |
| 5 Breaking of the drill | 1. Poor rigidity of fixture. 2. Improper speed and feed. 3. Insufficient chip removal 4. Excessive web-thickness | Use rigid fixture and chucks. Select speed and feed as per job. Remove the chips frequently Web thinning & proper point grinding. |
| 6 Breakage in deep hole | 1. Blockage of chips 2. Non-uniform back-taper 3. Runout on OD | Try wood-pecking system. Check back taper uniformity Check concentricity |
| 7 Rubbing | 1. Improper Point relief 2. Non-uniform back taper | Regrind drill-point with proper relief. Check for negative back-taper on body. |
| 8 Burning / Land washes off | 1. Insufficient coolant flow 2. Inappropriate coolant 3. Hard work-piece | Ensure proper coolant flow Use proper coolant recommended. Select the right drill suitable for job. |
| 9 Splitting of drills | 1. Axial play in spindle 2. Springy clamping of job 3. Excessive feed | Correct the spindle play. Ensure rigid clamping. Reduce the feed. |
| 10 Tang breakage | 1. Slipping chuck 2. Defect in inner surface of Morse taper | Modify the inner surface of the holder or change the holder. |

TROUBLE SHOOTING (TAPS)

| PROBLEM | CAUSES | REMEDIES |
|---------------------------------------|--|--|
| 1 Tap breakage | 1. Incorrect tap 2. Incorrect chamfer symmetry 3. Small hole 4. Hits at bottom of hole 5. Tool hardness, geometry 6. Blunt tap | - Choose suitable type tap - Ensure proper centre align - Select proper hole size - Use slipping clutch / shorten - Check the hardness of job - Regrind the tap |
| 2 Poor tap life chipping / wear | 1. Surface hardening of hole 2. Chip congestion 3. Thread surface 4. Ineffective coolant supply 5. High cutting speed 6. Smaller hole size 7. Cold welding/irregular job micro | - Work hardening material, Lower speed - Check speed. Use alternate type - Ensure proper geometry - Improper the efficiency of coolant - Lower the existing speed - Refer the chart for correct hole size - Improper lubrication & speed |
| 3 Larger Thread (Oversize cutting) | 1. Incorrect type of tap 2. Smaller hole size 3. Improper alignment 4. Spindle restriction 5. Built up edges 6. High speed | - Use specified tap for application - Use the recommended hole size - Check the alignment & eccentricity - Check the spindle condition / run out - Improper lubrication - Lower the speed |
| 4 Smaller thread (undersize cutting) | 1. Incorrect tap selection 2. Inaccurate setup 3. Rigid spindle 4. Tolerance | - Check the correctness of tap used - Recheck the alignment - Ensure spindle movement smooth - Ensure geometrical tolerances |
| 5 Bell mouth Hole | 1. Incorrect starting pressure | - Use a spindle with axial float |
| 6 Unsatisfactory finish (Poor finish) | 1. Blunt tap 2. Badly reground 3. Coolant improper quality / qty. | - Resharpen the tap. - Grind properly. - Use ample supply of right lubricant |

ENHANCEMENT (METALLURGICAL)

SURFACE TREATMENTS :

STEAM TEMPERING : Gives a strongly adhering blue oxide surface that acts to retain cutting fluid and prevent chips welding to cutting edges. More effective on drills and taps.

NITRIDING : This process can increase the surface wear resistance. Particularly useful on taps and drills used on abrasive material like cast iron and backlite.

SURFACE COATING :

TiN - TITANIUM NITRIDE : (GOLDEN COLOUR) :

Ceramic coating applied by physical vapour deposition (PVD) gives high hardness and low friction properties, improve the performance and considerably longer life to HSS tools. Mainly for drills and taps. Hardness : 2300 HV.

TiAlN - TITANIUM ALUMINIUM NITRIDE : (VIOLET COLOUR)

Multi-layer PVD coating improves tool life substantially. Higher toughness and oxidation stability permits dry machining. Ideal for drills and taps used at higher speeds and feeds. (hardness : 3300 HV)

TiCN - TITANIUM CARBO-NITRIDE : (BLUISH GREY)

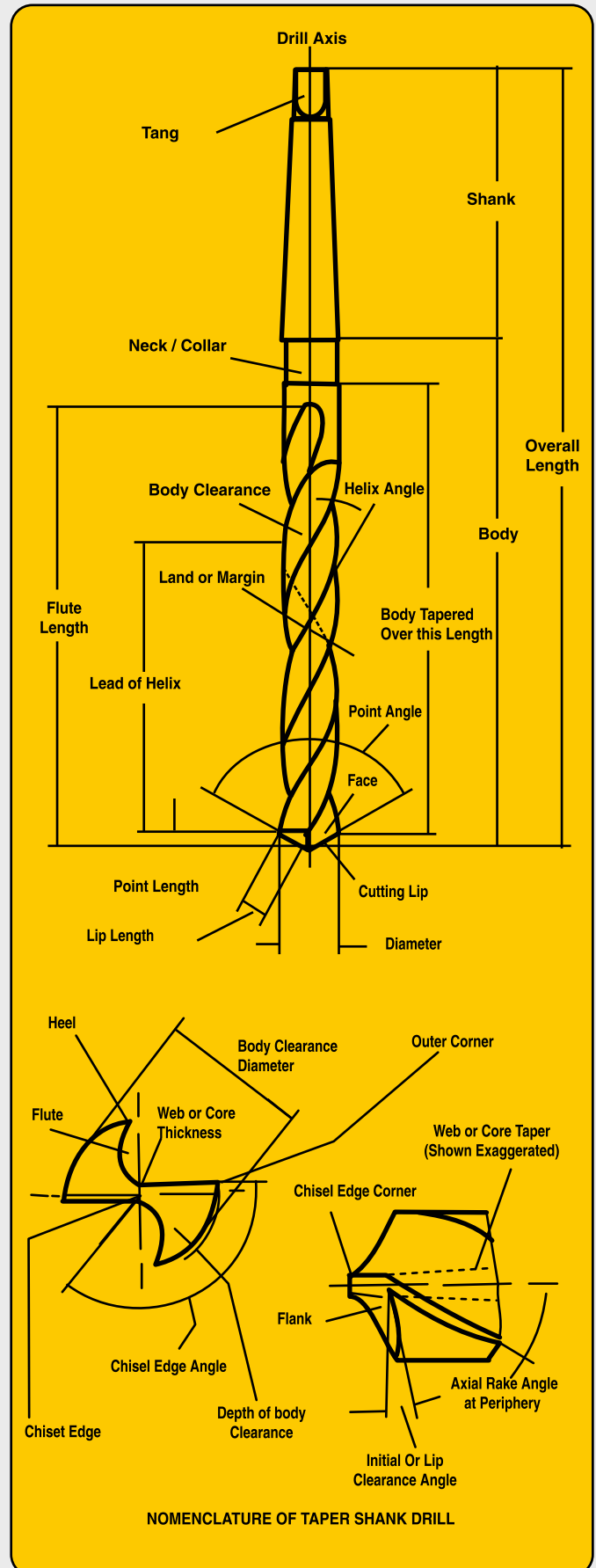
This coating is harder than TiN with lower coefficient of friction. Ideal for milling cutters. (hardness : 3000 HV) (other coatings : Titanium Diboride-TiB₂, Chromium nitride-CrN, Zirconium nitride-ZrN, Diamond like coat-DLC, Tungsten carbide - WC/C, Aluminium chromium nitride-AlCrN, Diamond coating - crystalline & multi layers)

THERMAL TREATMENTS :

CRYOGENIC TEMPERING : Sub zero treatment of tools at very low temperatures (-190°C) using liquid nitrogen, enhances the properties in micro levels. This considerably improves the endurance and performance of tool

CHOICE OF HSS GRADES :

M2 -Molybdenum grade - Popular for all general purpose-%6W:5Mo:2V (6:5:2)
M35 -5% Cobalt grade - For tougher application & RED hardness - %6W:5Mo:2V:5Co (6:5:2:5)
M42 -8% Cobalt grade - Better than M35 -%2W:10Mo:1V : 8Co (2:10:1:8)
T42 -10% Cobalt grade - For Tool Bits -%10W:4Mo:3V 10Co (10:4:3:10)
(*Only popular grades addressed here)





Birla Precision Technologies Ltd.

**INDIAN TOOL
MANUFACTURERS
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