

Crossed Helical Gears *Materials*

Steel Crossed Axis @ 90° STD : Steel 214M15/045M10

12 DP 45° H.A. ALTERNATIVE : Brass, Tufnol or Delrin
20° P.A. SPECIAL TEETH : between 9 - 100



| TORQUE CHECK 50 teeth x 1000 rpm | 214M15 303S21 | 214M15 Cse/HD | Brass | Tufnol | |
|-------------------------------------|------------------|------------------|--------|--------|-------|
| variations at back | TORQUE Nm. | 6.078 | 39.941 | 3.042 | 2.173 |
| | K.W. | 0.637 | 4.185 | 0.318 | 0.227 |

Helical Gears Crossed Axis Steel DP 12



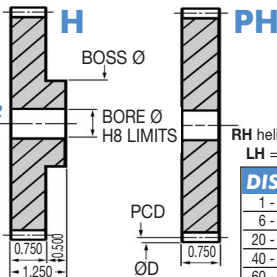
RH 45°

LH available
on request.

RH 45°

RH runs with RH
Popular sizes in stock.

Any two part numbers of this pitch will run together.



RH helix is standard.
LH = price + 33%.

DISCOUNTS

| | List Price |
|-----------|------------|
| 1 - 5 | |
| 6 - 19 | - 12% |
| 20 - 39 | - 25% |
| 40 - 59 | - 33% |
| 60 - 99 | - 37% |
| 100 - 200 | - 42% |

| PART NUMBER | TEETH | PCD (ins) | ØD (ins) | BOSS Ø (ins) | BORE Ø (ins) | PRICE EACH 1 - 5 | |
|-------------|-------|-----------|----------|--------------|--------------|------------------|--------|
| | | | | | | H | PH |
| H12-9 | 9 | 1.179 | 1.345 | 0.875 | 0.500 | £20.12 | £15.19 |
| H12-10 | 10 | 1.179 | 1.345 | 0.875 | 0.500 | £20.16 | £17.13 |
| H12-11 | 11 | 1.296 | 1.463 | 1.000 | 0.500 | £21.15 | £17.99 |
| H12-12 | 12 | 1.414 | 1.581 | 1.000 | 0.500 | £21.77 | £18.50 |
| H12-13 | 13 | 1.532 | 1.699 | 1.250 | 0.625 | £22.78 | £19.36 |
| H12-14 | 14 | 1.650 | 1.817 | 1.250 | 0.625 | £23.25 | £19.85 |
| H12-15 | 15 | 1.768 | 1.934 | 1.375 | 0.625 | £25.31 | £21.84 |
| H12-16 | 16 | 1.886 | 2.052 | 1.375 | 0.750 | £26.12 | £22.79 |
| H12-17 | 17 | 2.003 | 2.170 | 1.375 | 0.750 | £27.69 | £24.21 |
| H12-18 | 18 | 2.121 | 2.288 | 1.750 | 0.750 | £28.50 | £24.85 |
| H12-19 | 19 | 2.239 | 2.406 | 1.750 | 0.750 | £29.37 | £25.58 |
| H12-20 | 20 | 2.357 | 2.524 | 1.750 | 0.750 | £30.00 | £26.70 |
| H12-21 | 21 | 2.475 | 2.642 | 1.750 | 0.750 | £31.35 | £27.40 |
| H12-22 | 22 | 2.593 | 2.759 | 1.750 | 0.750 | £32.33 | £28.39 |
| H12-23 | 23 | 2.711 | 2.877 | 1.750 | 0.750 | £36.62 | £31.16 |
| H12-24 | 24 | 2.828 | 2.995 | 1.970 | 0.750 | £38.12 | £32.02 |
| H12-25 | 25 | 2.946 | 3.113 | 1.970 | 0.750 | £39.79 | £33.09 |
| H12-26 | 26 | 3.064 | 3.231 | 1.970 | 0.750 | £40.84 | £33.99 |
| H12-27 | 27 | 3.182 | 3.349 | 1.970 | 0.750 | £42.97 | £35.89 |
| H12-28 | 28 | 3.300 | 3.466 | 1.970 | 0.750 | £46.17 | £38.72 |
| H12-29 | 29 | 3.418 | 3.584 | 1.970 | 0.750 | £46.54 | £39.04 |
| H12-30 | 30 | 3.536 | 3.702 | 1.970 | 0.750 | £47.47 | £39.68 |
| H12-31 | 31 | 3.653 | 3.820 | 1.970 | 0.750 | £47.78 | £40.15 |

25.66



Unit 14, Foxwood Ind. Park, Foxwood Rd. Chesterfield, Derbyshire S41 9RN
Telephone +44(0)1246 268080 Fax +44(0)1246 260003

| PART NUMBER | TEETH | PCD (ins) | ØD (ins) | BOSS Ø (ins) | BORE Ø (ins) | PRICE EACH 1 - 5 | |
|-------------|-------|-----------|----------|--------------|--------------|------------------|---------|
| | | | | | | H | PH |
| H12-32 | 32 | 3.771 | 3.938 | 1.970 | 0.750 | £48.53 | £40.75 |
| H12-33 | 33 | 3.889 | 4.056 | 1.970 | 0.750 | £48.97 | £41.15 |
| H12-34 | 34 | 4.007 | 4.174 | 1.970 | 0.750 | £50.64 | £42.58 |
| H12-35 | 35 | 4.125 | 4.291 | 1.970 | 0.750 | £51.69 | £43.36 |
| H12-36 | 36 | 4.243 | 4.409 | 1.970 | 0.750 | £52.79 | £44.38 |
| H12-37 | 37 | 4.360 | 4.527 | 1.970 | 0.750 | £55.45 | £46.88 |
| H12-38 | 38 | 4.478 | 4.645 | 1.970 | 0.750 | £56.20 | £47.66 |
| H12-39 | 39 | 4.596 | 4.763 | 1.970 | 0.750 | £58.65 | £49.97 |
| H12-40 | 40 | 4.714 | 4.881 | 1.970 | 0.750 | £59.67 | £51.04 |
| H12-41 | 41 | 4.832 | 4.999 | 1.970 | 0.750 | £61.12 | £52.08 |
| H12-42 | 42 | 4.950 | 5.116 | 1.970 | 0.750 | £65.09 | £54.07 |
| H12-43 | 43 | 5.068 | 5.234 | 1.970 | 0.750 | £68.19 | £55.50 |
| H12-44 | 44 | 5.185 | 5.352 | 1.970 | 0.750 | £70.13 | £57.13 |
| H12-45 | 45 | 5.303 | 5.470 | 1.970 | 0.750 | £70.43 | £58.26 |
| H12-46 | 46 | 5.421 | 5.588 | 1.970 | 0.750 | £72.94 | £58.57 |
| H12-47 | 47 | 5.539 | 5.706 | 1.970 | 0.750 | £76.37 | £60.72 |
| H12-48 | 48 | 5.657 | 5.824 | 1.970 | 0.750 | £76.03 | £61.12 |
| H12-49 | 49 | 5.775 | 5.941 | 1.970 | 0.750 | £78.45 | £61.84 |
| H12-50 | 50 | 5.893 | 6.059 | 2.950 | 0.750 | £79.36 | £62.46 |
| H12-51 | 51 | 6.010 | 6.177 | 2.950 | 0.750 | £86.18 | £68.95 |
| H12-52 | 52 | 6.128 | 6.295 | 2.950 | 0.750 | £90.34 | £72.25 |
| H12-53 | 53 | 6.246 | 6.413 | 2.950 | 0.750 | £94.82 | £75.85 |
| H12-54 | 54 | 6.364 | 6.531 | 2.950 | 0.750 | £97.11 | £85.67 |
| H12-55 | 55 | 6.482 | 6.648 | 2.950 | 0.750 | £103.16 | £86.15 |
| H12-56 | 56 | 6.600 | 6.766 | 2.950 | 0.750 | £110.69 | £92.23 |
| H12-57 | 57 | 6.718 | 6.884 | 2.950 | 0.750 | £123.13 | £96.80 |
| H12-58 | 58 | 6.835 | 7.002 | 2.950 | 0.750 | £123.55 | £97.82 |
| H12-59 | 59 | 6.953 | 7.120 | 2.950 | 0.750 | £123.88 | £102.35 |
| H12-60 | 60 | 7.071 | 7.238 | 2.950 | 0.750 | £124.18 | £102.36 |
| H12-62 | 62 | 7.307 | 7.473 | 2.950 | 0.750 | £132.34 | £105.88 |
| H12-64 | 64 | 7.542 | 7.709 | 2.950 | 0.750 | £138.65 | £109.63 |
| H12-65 | 65 | 7.660 | 7.827 | 2.950 | 0.750 | £139.19 | £110.40 |
| H12-66 | 66 | 7.778 | 7.945 | 2.950 | 0.750 | £139.25 | £111.64 |
| H12-68 | 68 | 8.014 | 8.181 | 2.950 | 1.000 | £147.41 | £117.94 |
| H12-70 | 70 | 8.250 | 8.416 | 2.950 | 1.000 | £160.56 | £128.45 |
| H12-71 | 71 | 8.367 | 8.534 | 2.950 | 1.000 | £173.03 | £131.11 |
| H12-72 | 72 | 8.485 | 8.652 | 2.950 | 1.000 | £173.83 | £134.16 |
| H12-73 | 73 | 8.603 | 8.770 | 2.950 | 1.000 | £174.54 | £137.29 |
| H12-74 | 74 | 8.721 | 8.888 | 2.950 | 1.000 | £174.76 | £140.06 |
| H12-75 | 75 | 8.839 | 9.006 | 2.950 | 1.000 | £187.91 | £150.56 |
| H12-76 | 76 | 8.957 | 9.123 | 2.950 | 1.000 | £188.31 | £154.12 |
| H12-78 | 78 | 9.192 | 9.359 | 2.950 | 1.000 | £201.92 | £161.25 |
| H12-80 | 80 | 9.428 | 9.595 | 2.950 | 1.000 | £202.95 | £162.72 |
| H12-86 | 86 | 10.135 | 10.302 | 2.950 | 1.000 | £206.49 | £165.11 |
| H12-90 | 90 | 10.607 | 10.773 | 2.950 | 1.000 | £217.34 | £175.19 |
| H12-96 | 96 | 11.314 | 11.480 | 2.950 | 1.000 | £230.74 | £188.29 |
| H12-98 | 98 | 11.549 | 11.716 | 2.950 | 1.000 | £274.11 | £208.51 |
| H12-100 | 100 | 11.785 | 11.952 | 2.950 | 1.000 | £291.04 | £230.55 |

Gears with a greater number of teeth than listed are subject to different face widths, boss and bore. Please consult Technical for sizes.



Crossed Helical Gears Materials

Plastic Crossed Axis @ 90°

STD : White Delrin
(fully machined)

12 DP

45° H.A.
20° P.A.

SPECIAL TEETH : between 9 - 66

SPECIALS
ON DEMAND

| TORQUE CHECK 50 teeth x 1000 rpm | |
|-------------------------------------|-----------------|
| variations at back | TORQUE Nm. 1.50 |



RH 45°

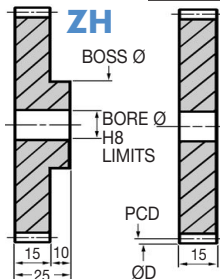


LH available
on request.

RH 45°

RH runs with RH
Popular sizes in stock.

Any two part numbers of this pitch will run together.



ZPH

RH helix is standard.
LH = price + 33%.

DISCOUNTS

| | List Price |
|-------------|------------|
| 1 - 5 | |
| 6 - 29 | - 22% |
| 30 - 99 | - 44% |
| 100 - 399 | - 47% |
| 400 - 999 | - 50% |
| 1000 - 5000 | - 53% |

Helical Gears Crossed Axis Plastic DP 12

| PART NUMBER | TEETH | PCD (ins) | ØD (ins) | BOSS Ø (ins) | BORE Ø (mm) | PRICE EACH 1 - 5 | ZH | ZPH |
|-------------|-------|-----------|----------|--------------|-------------|------------------|--------|-----|
| ZH12-9 | 9 | 1.179 | 1.345 | 0.984 | 12 | £11.11 | £8.51 | |
| ZH12-10 | 10 | 1.179 | 1.345 | 0.984 | 12 | £11.15 | £8.53 | |
| ZH12-11 | 11 | 1.296 | 1.463 | 1.063 | 12 | £13.30 | £10.15 | |
| ZH12-12 | 12 | 1.414 | 1.581 | 1.181 | 12 | £13.68 | £10.50 | |
| ZH12-13 | 13 | 1.532 | 1.699 | 1.181 | 12 | £14.35 | £10.97 | |
| ZH12-14 | 14 | 1.650 | 1.817 | 1.181 | 12 | £14.64 | £11.21 | |
| ZH12-15 | 15 | 1.768 | 1.934 | 1.181 | 12 | £15.93 | £12.16 | |
| ZH12-16 | 16 | 1.886 | 2.052 | 1.181 | 12 | £16.44 | £12.62 | |
| ZH12-17 | 17 | 2.003 | 2.170 | 1.378 | 12 | £20.91 | £16.09 | |
| ZH12-18 | 18 | 2.121 | 2.288 | 1.378 | 12 | £21.52 | £16.53 | |
| ZH12-19 | 19 | 2.239 | 2.406 | 1.378 | 12 | £25.13 | £19.33 | |
| ZH12-20 | 20 | 2.357 | 2.524 | 1.378 | 12 | £25.74 | £19.69 | |
| ZH12-21 | 21 | 2.475 | 2.642 | 1.378 | 12 | £26.90 | £20.64 | |
| ZH12-22 | 22 | 2.593 | 2.759 | 1.378 | 12 | £27.68 | £21.24 | |
| ZH12-23 | 23 | 2.711 | 2.877 | 1.378 | 12 | £31.35 | £24.07 | |
| ZH12-24 | 24 | 2.828 | 2.995 | 1.378 | 12 | £34.61 | £26.55 | |
| ZH12-25 | 25 | 2.946 | 3.113 | 1.378 | 12 | £36.11 | £27.68 | |
| ZH12-26 | 26 | 3.064 | 3.231 | 1.771 | 15 | £37.05 | £28.40 | |
| ZH12-27 | 27 | 3.182 | 3.349 | 1.771 | 15 | £38.96 | £29.93 | |
| ZH12-28 | 28 | 3.300 | 3.466 | 1.771 | 15 | £41.90 | £32.14 | |
| ZH12-29 | 29 | 3.418 | 3.584 | 1.771 | 15 | £46.96 | £35.98 | |
| ZH12-30 | 30 | 3.536 | 3.702 | 1.771 | 15 | £47.92 | £36.74 | |
| ZH12-31 | 31 | 3.653 | 3.820 | 1.771 | 15 | £48.24 | £36.97 | |

25.68



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