

Crossed Helical Gears Materials

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

0.8 MOD 45° H.A. ALTERNATIVE : Brass, Tufnol or Delrin

20° P.A. SPECIAL TEETH : between 9 - 200

| TORQUE CHECK 50 teeth x 1000 rpm | | 214M15 303S21 | 214M15 Cse/HD | Brass | Tufnol |
|-------------------------------------|-------------------|------------------|------------------|-------|--------|
| variations at back | TORQUE Nm. | 0.395 | 2.596 | 0.197 | 0.141 |
| | K.W. | 0.041 | 0.272 | 0.021 | 0.015 |

Helical Gears Crossed Axis Steel MOD 0.8



RH 45°



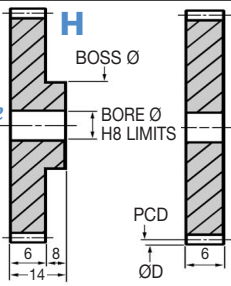
LH available on request.

RH 45°

RH runs with RH

Popular sizes in stock.

Any two part numbers of this pitch will run together.



PH

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 (mm) | ØD (mm) | BOSS Ø (mm) | BORE Ø (mm) | WEIGHT (kg) | PRICE EACH 1 - 5 | | |
|-------------|-------|----------|---------|-------------|-------------|-------------|------------------|--------|--------|
| | | | | | | | H | PH | |
| H0.8-9 | 9 | 11.31 | 12.91 | 9 | 5 | 0.006 | 0.004 | £11.70 | £9.72 |
| H0.8-10 | 10 | 11.31 | 12.91 | 9 | 5 | 0.006 | 0.004 | £12.22 | £9.94 |
| H0.8-11 | 11 | 12.45 | 14.05 | 9 | 5 | 0.007 | 0.005 | £12.51 | £10.30 |
| H0.8-12 | 12 | 13.58 | 15.18 | 11 | 5 | 0.010 | 0.006 | £12.93 | £10.32 |
| H0.8-13 | 13 | 14.71 | 16.31 | 11 | 5 | 0.012 | 0.007 | £13.31 | £10.72 |
| H0.8-14 | 14 | 15.84 | 17.44 | 11 | 5 | 0.013 | 0.008 | £13.54 | £10.82 |
| H0.8-15 | 15 | 16.97 | 18.57 | 12 | 5 | 0.015 | 0.009 | £13.75 | £11.21 |
| H0.8-16 | 16 | 18.10 | 19.70 | 12 | 5 | 0.017 | 0.011 | £13.93 | £11.35 |
| H0.8-17 | 17 | 19.23 | 20.83 | 12 | 5 | 0.018 | 0.012 | £14.15 | £11.49 |
| H0.8-18 | 18 | 20.36 | 21.96 | 12 | 5 | 0.020 | 0.014 | £14.32 | £11.81 |
| H0.8-19 | 19 | 21.50 | 23.10 | 12 | 5 | 0.021 | 0.016 | £14.44 | £11.91 |
| H0.8-20 | 20 | 22.63 | 24.23 | 12 | 5 | 0.023 | 0.018 | £14.65 | £12.22 |
| H0.8-21 | 21 | 23.76 | 25.36 | 12 | 5 | 0.025 | 0.019 | £14.72 | £12.34 |
| H0.8-22 | 22 | 24.89 | 26.49 | 12 | 5 | 0.027 | 0.021 | £14.77 | £12.50 |
| H0.8-23 | 23 | 26.02 | 27.62 | 12 | 5 | 0.029 | 0.024 | £14.82 | £12.68 |
| H0.8-24 | 24 | 27.15 | 28.75 | 16 | 6 | 0.036 | 0.025 | £14.83 | £12.69 |
| H0.8-25 | 25 | 28.28 | 29.88 | 16 | 6 | 0.038 | 0.028 | £14.95 | £12.83 |
| H0.8-26 | 26 | 29.42 | 31.02 | 16 | 6 | 0.040 | 0.030 | £14.96 | £12.93 |
| H0.8-27 | 27 | 30.55 | 32.15 | 16 | 6 | 0.043 | 0.032 | £15.02 | £13.00 |
| H0.8-28 | 28 | 31.68 | 33.28 | 16 | 6 | 0.045 | 0.035 | £15.07 | £13.13 |
| H0.8-29 | 29 | 32.81 | 34.41 | 16 | 6 | 0.048 | 0.038 | £15.14 | £13.19 |
| H0.8-30 | 30 | 33.94 | 35.54 | 16 | 6 | 0.051 | 0.040 | £15.18 | £13.31 |
| H0.8-31 | 31 | 35.07 | 36.67 | 16 | 6 | 0.054 | 0.043 | £15.19 | £13.40 |

25.10



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| PART NUMBER | TEETH | PCD (mm) | ØD (mm) | BOSS Ø (mm) | BORE Ø (mm) | WEIGHT (kg) | | PRICE EACH 1 - 5 | |
|-------------|-------|----------|---------|-------------|-------------|-------------|-------|------------------|--------|
| | | | | | | H | PH | H | PH |
| HO.8-32 | 32 | 36.20 | 37.80 | 16 | 6 | 0.057 | 0.046 | £16.24 | £13.54 |
| HO.8-33 | 33 | 37.34 | 38.94 | 16 | 6 | 0.060 | 0.049 | £16.27 | £13.61 |
| HO.8-34 | 34 | 38.47 | 40.07 | 16 | 6 | 0.063 | 0.052 | £16.35 | £13.68 |
| HO.8-35 | 35 | 39.60 | 41.20 | 16 | 6 | 0.066 | 0.055 | £16.44 | £13.82 |
| HO.8-36 | 36 | 40.73 | 42.33 | 16 | 6 | 0.069 | 0.059 | £16.48 | £13.93 |
| HO.8-37 | 37 | 41.86 | 43.46 | 16 | 6 | 0.072 | 0.062 | £16.49 | £13.96 |
| HO.8-38 | 38 | 42.99 | 44.59 | 16 | 6 | 0.076 | 0.065 | £16.81 | £13.98 |
| HO.8-39 | 39 | 44.12 | 45.72 | 16 | 6 | 0.079 | 0.069 | £16.93 | £13.99 |
| HO.8-40 | 40 | 45.25 | 46.85 | 16 | 6 | 0.083 | 0.073 | £17.13 | £14.05 |
| HO.8-41 | 41 | 46.39 | 47.99 | 16 | 6 | 0.087 | 0.076 | £17.37 | £14.32 |
| HO.8-42 | 42 | 47.52 | 49.12 | 16 | 6 | 0.091 | 0.080 | £17.80 | £14.90 |
| HO.8-43 | 43 | 48.65 | 50.25 | 16 | 6 | 0.095 | 0.084 | £18.04 | £15.14 |
| HO.8-44 | 44 | 49.78 | 51.38 | 16 | 6 | 0.099 | 0.088 | £18.43 | £15.38 |
| HO.8-45 | 45 | 50.91 | 52.51 | 16 | 6 | 0.103 | 0.092 | £18.67 | £15.83 |
| HO.8-46 | 46 | 52.04 | 53.64 | 16 | 6 | 0.107 | 0.096 | £19.36 | £16.24 |
| HO.8-47 | 47 | 53.17 | 54.77 | 16 | 6 | 0.111 | 0.101 | £19.54 | £16.73 |
| HO.8-48 | 48 | 54.31 | 55.91 | 16 | 6 | 0.116 | 0.105 | £19.77 | £16.77 |
| HO.8-49 | 49 | 55.44 | 57.04 | 16 | 6 | 0.120 | 0.110 | £20.32 | £16.98 |
| HO.8-50 | 50 | 56.57 | 58.17 | 16 | 6 | 0.125 | 0.114 | £21.21 | £17.76 |
| HO.8-51 | 51 | 57.70 | 59.30 | 16 | 6 | 0.129 | 0.119 | £21.42 | £17.89 |
| HO.8-52 | 52 | 58.83 | 60.43 | 16 | 6 | 0.134 | 0.124 | £22.44 | £18.09 |
| HO.8-53 | 53 | 59.96 | 61.56 | 16 | 6 | 0.139 | 0.128 | £22.89 | £18.61 |
| HO.8-54 | 54 | 61.09 | 62.69 | 16 | 6 | 0.144 | 0.133 | £23.25 | £19.07 |
| HO.8-55 | 55 | 62.23 | 63.83 | 16 | 6 | 0.149 | 0.138 | £23.55 | £19.29 |
| HO.8-56 | 56 | 63.36 | 64.96 | 16 | 6 | 0.154 | 0.143 | £23.87 | £19.42 |
| HO.8-57 | 57 | 64.49 | 66.09 | 16 | 6 | 0.159 | 0.149 | £24.38 | £19.69 |
| HO.8-58 | 58 | 65.62 | 67.22 | 16 | 6 | 0.165 | 0.154 | £24.85 | £19.95 |
| HO.8-59 | 59 | 66.75 | 68.35 | 16 | 6 | 0.170 | 0.159 | £24.89 | £19.98 |
| HO.8-60 | 60 | 67.88 | 69.48 | 20 | 8 | 0.180 | 0.164 | £25.18 | £20.16 |
| HO.8-61 | 61 | 69.01 | 70.61 | 20 | 8 | 0.186 | 0.169 | £25.40 | £20.59 |
| HO.8-62 | 62 | 70.15 | 71.75 | 20 | 8 | 0.191 | 0.175 | £25.61 | £20.68 |
| HO.8-63 | 63 | 71.28 | 72.88 | 20 | 8 | 0.197 | 0.181 | £26.12 | £21.17 |
| HO.8-64 | 64 | 72.41 | 74.01 | 20 | 8 | 0.203 | 0.187 | £26.90 | £21.23 |
| HO.8-66 | 66 | 74.67 | 76.27 | 20 | 8 | 0.215 | 0.199 | £27.22 | £21.67 |
| HO.8-68 | 68 | 76.93 | 78.53 | 20 | 8 | 0.227 | 0.211 | £27.54 | £21.70 |
| HO.8-70 | 70 | 79.20 | 80.80 | 20 | 8 | 0.240 | 0.224 | £28.13 | £22.69 |
| HO.8-75 | 75 | 84.85 | 86.45 | 20 | 8 | 0.273 | 0.257 | £29.10 | £23.93 |
| HO.8-76 | 76 | 85.98 | 87.58 | 20 | 8 | 0.280 | 0.264 | £29.89 | £23.99 |
| HO.8-80 | 80 | 90.51 | 92.11 | 20 | 8 | 0.309 | 0.293 | £34.84 | £24.32 |
| HO.8-86 | 86 | 97.30 | 98.90 | 20 | 8 | 0.355 | 0.339 | £36.93 | £24.51 |
| HO.8-88 | 88 | 99.56 | 101.16 | 20 | 10 | 0.371 | 0.355 | £37.79 | £24.70 |
| HO.8-90 | 90 | 101.82 | 103.42 | 20 | 10 | 0.388 | 0.372 | £39.30 | £24.89 |
| HO.8-96 | 96 | 108.61 | 110.21 | 20 | 10 | 0.439 | 0.423 | £43.69 | £35.11 |
| HO.8-100 | 100 | 113.14 | 114.74 | 20 | 10 | 0.475 | 0.459 | £44.40 | £36.26 |
| HO.8-112 | 112 | 126.71 | 128.31 | 30 | 12 | 0.593 | 0.577 | £49.39 | £39.47 |
| HO.8-120 | 120 | 135.76 | 137.36 | 30 | 12 | 0.678 | 0.662 | £51.25 | £42.76 |
| HO.8-127 | 127 | 143.68 | 145.28 | 30 | 12 | 0.758 | 0.742 | £58.55 | £46.54 |
| HO.8-128 | 128 | 144.82 | 146.42 | 30 | 12 | 0.770 | 0.754 | £59.49 | £49.61 |

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°

0.8 MOD

45° H.A.

20° P.A.

STD : White Delrin
(fully machined)

SPECIAL TEETH : between 9 - 110



| TORQUE CHECK | |
|---------------------|-----------------|
| 50 teeth x 1000 rpm | |
| variations at back | TORQUE Nm. 0.10 |



RH 45°

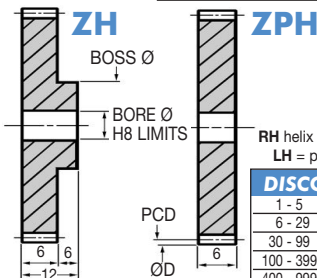


LH available on request.

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

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

Helical Gears Crossed Axis Plastic MOD 0.8

| PART NUMBER | TEETH | PCD (mm) | ØD (mm) | BOSS Ø (mm) | BORE Ø (mm) | WEIGHT (kg) | | PRICE EACH 1 - 5 | |
|-------------|-------|----------|---------|-------------|-------------|-------------|--------|------------------|-------|
| | | | | | | ZH | ZPH | ZH | ZPH |
| ZH0.8-9 | 9 | 11.31 | 12.91 | 12.91 | 4 | 0.0016 | 0.0011 | £6.14 | £4.42 |
| ZH0.8-10 | 10 | 11.31 | 12.91 | 12.91 | 4 | 0.0021 | 0.0011 | £6.24 | £4.62 |
| ZH0.8-11 | 11 | 12.45 | 14.05 | 14.05 | 4 | 0.0024 | 0.0014 | £6.34 | £4.79 |
| ZH0.8-12 | 12 | 13.58 | 15.18 | 12.00 | 4 | 0.0027 | 0.0017 | £6.43 | £4.97 |
| ZH0.8-13 | 13 | 14.71 | 16.31 | 12.00 | 4 | 0.0031 | 0.0020 | £6.69 | £5.09 |
| ZH0.8-14 | 14 | 15.84 | 17.44 | 14.00 | 4 | 0.0038 | 0.0024 | £6.70 | £5.19 |
| ZH0.8-15 | 15 | 16.97 | 18.57 | 14.00 | 4 | 0.0042 | 0.0027 | £6.71 | £5.25 |
| ZH0.8-16 | 16 | 18.10 | 19.70 | 14.00 | 4 | 0.0046 | 0.0031 | £6.72 | £5.32 |
| ZH0.8-17 | 17 | 19.23 | 20.83 | 14.00 | 4 | 0.0050 | 0.0036 | £6.75 | £5.46 |
| ZH0.8-18 | 18 | 20.36 | 21.96 | 14.00 | 4 | 0.0055 | 0.0040 | £6.87 | £5.48 |
| ZH0.8-19 | 19 | 21.50 | 23.10 | 14.00 | 4 | 0.0060 | 0.0045 | £6.99 | £5.52 |
| ZH0.8-20 | 20 | 22.63 | 24.23 | 14.00 | 4 | 0.0065 | 0.0050 | £7.04 | £5.55 |
| ZH0.8-21 | 21 | 23.76 | 25.36 | 14.00 | 4 | 0.0070 | 0.0055 | £7.14 | £5.58 |
| ZH0.8-22 | 22 | 24.89 | 26.49 | 16.00 | 5 | 0.0079 | 0.0060 | £7.27 | £5.63 |
| ZH0.8-23 | 23 | 26.02 | 27.62 | 16.00 | 5 | 0.0085 | 0.0066 | £7.36 | £5.67 |
| ZH0.8-24 | 24 | 27.15 | 28.75 | 16.00 | 5 | 0.0091 | 0.0072 | £7.38 | £5.72 |
| ZH0.8-25 | 25 | 28.28 | 29.88 | 16.00 | 5 | 0.0097 | 0.0078 | £7.39 | £5.73 |
| ZH0.8-26 | 26 | 29.42 | 31.02 | 16.00 | 5 | 0.0104 | 0.0085 | £7.40 | £5.76 |
| ZH0.8-27 | 27 | 30.55 | 32.15 | 16.00 | 5 | 0.0110 | 0.0092 | £7.45 | £5.79 |
| ZH0.8-28 | 28 | 31.68 | 33.28 | 16.00 | 5 | 0.0118 | 0.0099 | £7.49 | £5.87 |
| ZH0.8-29 | 29 | 32.81 | 34.41 | 16.00 | 5 | 0.0125 | 0.0106 | £8.20 | £6.38 |
| ZH0.8-30 | 30 | 33.94 | 35.54 | 16.00 | 5 | 0.0132 | 0.0114 | £8.32 | £6.39 |
| ZH0.8-31 | 31 | 35.07 | 36.67 | 16.00 | 5 | 0.0140 | 0.0122 | £8.35 | £6.40 |

25.12



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| PART NUMBER | TEETH | PCD (mm) | ØD (mm) | BOSS Ø (mm) | BORE Ø (mm) | WEIGHT (kg) | | PRICE EACH 1 - 5 | |
|-------------|-------|----------|---------|-------------|-------------|-------------|--------|------------------|--------|
| | | | | | | ZH | ZPH | ZH | ZPH |
| ZHO.8-32 | 32 | 36.20 | 37.80 | 16 | 5 | 0.0148 | 0.0130 | £8.36 | £6.43 |
| ZHO.8-33 | 33 | 37.34 | 38.94 | 16 | 5 | 0.0157 | 0.0138 | £8.38 | £6.44 |
| ZHO.8-34 | 34 | 38.47 | 40.07 | 16 | 5 | 0.0166 | 0.0147 | £8.45 | £6.50 |
| ZHO.8-35 | 35 | 39.60 | 41.20 | 16 | 5 | 0.0175 | 0.0156 | £8.50 | £6.51 |
| ZHO.8-36 | 36 | 40.73 | 42.33 | 16 | 5 | 0.0184 | 0.0165 | £8.52 | £7.45 |
| ZHO.8-37 | 37 | 41.86 | 43.46 | 16 | 5 | 0.0193 | 0.0174 | £8.53 | £7.49 |
| ZHO.8-38 | 38 | 42.99 | 44.59 | 16 | 5 | 0.0203 | 0.0184 | £9.77 | £7.63 |
| ZHO.8-39 | 39 | 44.12 | 45.72 | 16 | 5 | 0.0213 | 0.0194 | £9.86 | £7.64 |
| ZHO.8-40 | 40 | 45.25 | 46.85 | 16 | 5 | 0.0223 | 0.0204 | £9.94 | £7.70 |
| ZHO.8-41 | 41 | 46.39 | 47.99 | 16 | 5 | 0.0233 | 0.0215 | £9.99 | £7.75 |
| ZHO.8-42 | 42 | 47.52 | 49.12 | 16 | 5 | 0.0244 | 0.0226 | £10.01 | £9.40 |
| ZHO.8-43 | 43 | 48.65 | 50.25 | 16 | 5 | 0.0255 | 0.0237 | £10.04 | £9.47 |
| ZHO.8-44 | 44 | 49.78 | 51.38 | 16 | 5 | 0.0266 | 0.0248 | £10.15 | £9.51 |
| ZHO.8-45 | 45 | 50.91 | 52.51 | 16 | 5 | 0.0278 | 0.0259 | £12.29 | £9.55 |
| ZHO.8-46 | 46 | 52.04 | 53.64 | 16 | 5 | 0.0290 | 0.0271 | £12.39 | £9.57 |
| ZHO.8-47 | 47 | 53.17 | 54.77 | 16 | 5 | 0.0302 | 0.0283 | £12.43 | £9.60 |
| ZHO.8-48 | 48 | 54.31 | 55.91 | 16 | 5 | 0.0314 | 0.0295 | £12.44 | £9.65 |
| ZHO.8-49 | 49 | 55.44 | 57.04 | 16 | 5 | 0.0327 | 0.0308 | £12.51 | £9.77 |
| ZHO.8-50 | 50 | 56.57 | 58.17 | 16 | 5 | 0.0339 | 0.0321 | £12.52 | £9.82 |
| ZHO.8-51 | 51 | 57.70 | 59.30 | 16 | 5 | 0.0352 | 0.0334 | £12.66 | £11.11 |
| ZHO.8-52 | 52 | 58.83 | 60.43 | 16 | 5 | 0.0366 | 0.0347 | £12.77 | £11.12 |
| ZHO.8-53 | 53 | 59.96 | 61.56 | 16 | 5 | 0.0379 | 0.0361 | £12.78 | £11.65 |
| ZHO.8-54 | 54 | 61.09 | 62.69 | 16 | 5 | 0.0393 | 0.0374 | £14.73 | £11.66 |
| ZHO.8-55 | 55 | 62.23 | 63.83 | 16 | 5 | 0.0407 | 0.0389 | £14.74 | £11.67 |
| ZHO.8-56 | 56 | 63.36 | 64.96 | 16 | 5 | 0.0422 | 0.0403 | £15.20 | £11.84 |
| ZHO.8-57 | 57 | 64.49 | 66.09 | 16 | 5 | 0.0436 | 0.0418 | £15.22 | £11.85 |
| ZHO.8-58 | 58 | 65.62 | 67.22 | 16 | 5 | 0.0451 | 0.0432 | £15.23 | £11.86 |
| ZHO.8-59 | 59 | 66.75 | 68.35 | 16 | 5 | 0.0466 | 0.0447 | £15.42 | £12.07 |
| ZHO.8-60 | 60 | 67.88 | 69.48 | 18 | 6 | 0.0485 | 0.0462 | £15.45 | £12.08 |
| ZHO.8-61 | 61 | 69.01 | 70.61 | 18 | 6 | 0.0501 | 0.0477 | £15.47 | £12.33 |
| ZHO.8-62 | 62 | 70.15 | 71.75 | 18 | 6 | 0.0517 | 0.0493 | £15.48 | £12.52 |
| ZHO.8-63 | 63 | 71.28 | 72.88 | 18 | 6 | 0.0533 | 0.0510 | £15.55 | £13.30 |
| ZHO.8-64 | 64 | 72.41 | 74.01 | 18 | 6 | 0.0549 | 0.0526 | £15.77 | £13.74 |
| ZHO.8-66 | 66 | 74.67 | 76.27 | 18 | 6 | 0.0583 | 0.0560 | £15.78 | £13.75 |
| ZHO.8-68 | 68 | 76.93 | 78.53 | 18 | 6 | 0.0617 | 0.0594 | £16.90 | £16.09 |
| ZHO.8-70 | 70 | 79.20 | 80.80 | 18 | 8 | 0.0653 | 0.0630 | £16.92 | £16.42 |
| ZHO.8-75 | 75 | 84.85 | 86.45 | 18 | 8 | 0.0747 | 0.0724 | £21.39 | £17.34 |
| ZHO.8-76 | 76 | 85.98 | 87.58 | 18 | 8 | 0.0766 | 0.0743 | £25.68 | £17.90 |
| ZHO.8-80 | 80 | 90.51 | 92.11 | 18 | 8 | 0.0847 | 0.0824 | £28.26 | £17.98 |
| ZHO.8-86 | 86 | 97.30 | 98.90 | 18 | 8 | 0.0976 | 0.0953 | £29.26 | £22.00 |
| ZHO.8-88 | 88 | 99.56 | 101.16 | 20 | 10 | 0.1021 | 0.0997 | £30.78 | £22.05 |
| ZHO.8-90 | 90 | 101.82 | 103.42 | 20 | 10 | 0.1067 | 0.1043 | £38.88 | £27.88 |
| ZHO.8-96 | 96 | 108.61 | 110.21 | 20 | 10 | 0.1211 | 0.1188 | £44.51 | £33.47 |
| ZHO.8-100 | 100 | 113.14 | 114.74 | 20 | 10 | 0.1313 | 0.1289 | £52.85 | £36.85 |
| ZHO.8-110 | 110 | 124.45 | 125.90 | 20 | 10 | 0.1584 | 0.1561 | £60.11 | £38.03 |

'Never Knowingly Outpriced'

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

