

# Crossed Helical Gears *Materials*

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

20 DP 45°H.A. ALTERNATIVE : Brass, Tufnol or Delrin

20° P.A. SPECIAL TEETH : between 9 - 140



TORQUE CHECK 50 teeth x 1000 rpm	214M15 303S21	214M15 Cse/HD	Brass	Tufnol	
variations at back	TORQUE Nm.	1.454	9.615	0.732	0.523
	K.W.	0.152	1.007	0.077	0.054

Helical Gears Crossed Axis Steel DP20

RH 45°



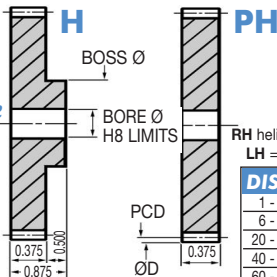
LH available  
on request.

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
H20-9	9	0.707	0.807	0.562	0.375	£13.09	£11.52
H20-10	10	0.707	0.807	0.562	0.375	£13.09	£11.53
H20-11	11	0.778	0.878	0.562	0.375	£14.15	£12.22
H20-12	12	0.849	0.949	0.687	0.500	£14.33	£12.34
H20-13	13	0.919	1.019	0.687	0.500	£14.82	£12.50
H20-14	14	0.990	1.090	0.750	0.500	£14.83	£12.69
H20-15	15	1.061	1.161	0.875	0.500	£15.61	£13.00
H20-16	16	1.131	1.231	1.000	0.500	£15.87	£13.19
H20-17	17	1.202	1.302	1.000	0.500	£16.12	£13.40
H20-18	18	1.273	1.373	1.000	0.500	£16.92	£13.61
H20-19	19	1.344	1.444	1.000	0.500	£17.29	£13.75
H20-20	20	1.414	1.514	1.000	0.500	£18.12	£13.99
H20-21	21	1.485	1.585	1.000	0.500	£18.61	£14.13
H20-22	22	1.556	1.656	1.000	0.500	£18.79	£14.20
H20-23	23	1.626	1.726	1.000	0.500	£19.36	£14.46
H20-24	24	1.697	1.797	1.000	0.500	£19.77	£14.67
H20-25	25	1.768	1.868	1.000	0.500	£20.70	£15.02
H20-26	26	1.838	1.938	1.500	0.625	£21.10	£15.18
H20-27	27	1.909	2.009	1.500	0.625	£21.59	£15.41
H20-28	28	1.980	2.080	1.500	0.625	£22.43	£15.76
H20-29	29	2.051	2.151	1.500	0.625	£22.81	£15.90
H20-30	30	2.121	2.221	1.500	0.625	£23.67	£16.19
H20-31	31	2.192	2.292	1.500	0.625	£24.10	£16.27

25.58



Unit 14, Foxwood Ind. Park, Foxwood Rd. Chesterfield, Derbyshire S41 9RN

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PART NUMBER	TEETH	PCD (ins)	ØD (ins)	BOSS Ø (ins)	BORE Ø (ins)	PRICE EACH 1 - 5	
						H	PH
H20-32	32	2.263	2.363	1.500	0.625	£24.77	£16.56
H20-33	33	2.333	2.433	1.500	0.625	£25.05	£16.72
H20-34	34	2.404	2.504	1.500	0.625	£25.40	£16.92
H20-35	35	2.475	2.575	1.500	0.625	£25.81	£17.34
H20-36	36	2.546	2.646	1.500	0.625	£26.12	£17.59
H20-37	37	2.616	2.716	1.500	0.625	£26.69	£17.87
H20-38	38	2.687	2.787	1.500	0.625	£27.13	£17.98
H20-39	39	2.758	2.858	1.500	0.625	£27.39	£18.13
H20-40	40	2.828	2.928	1.500	0.625	£28.39	£18.30
H20-41	41	2.899	2.999	1.500	0.625	£28.66	£18.45
H20-42	42	2.970	3.070	1.500	0.625	£29.29	£18.79
H20-43	43	3.041	3.141	1.500	0.625	£29.68	£19.04
H20-44	44	3.111	3.211	1.500	0.625	£30.34	£19.73
H20-45	45	3.182	3.282	1.500	0.625	£30.55	£20.16
H20-46	46	3.253	3.353	1.500	0.625	£30.81	£20.73
H20-47	47	3.323	3.423	1.500	0.625	£31.07	£21.92
H20-48	48	3.394	3.494	1.500	0.625	£31.11	£21.96
H20-49	49	3.465	3.565	1.500	0.625	£31.22	£22.57
H20-50	50	3.536	3.636	1.500	0.625	£31.54	£25.62
H20-51	51	3.606	3.706	1.500	0.625	£31.58	£26.00
H20-52	52	3.677	3.777	1.500	0.625	£34.55	£26.55
H20-53	53	3.748	3.848	1.500	0.625	£35.22	£27.02
H20-54	54	3.818	3.918	1.500	0.625	£35.93	£27.33
H20-55	55	3.889	3.989	1.500	0.625	£35.97	£27.39
H20-56	56	3.960	4.060	1.500	0.625	£37.47	£27.87
H20-57	57	4.031	4.131	1.500	0.625	£40.48	£30.55
H20-58	58	4.101	4.201	1.500	0.625	£40.50	£31.21
H20-59	59	4.172	4.272	1.500	0.625	£40.56	£34.02
H20-60	60	4.243	4.343	1.500	0.625	£50.57	£37.06
H20-61	61	4.313	4.413	2.000	0.625	£50.60	£40.51
H20-62	62	4.384	4.484	2.000	0.625	£50.65	£41.18
H20-63	63	4.455	4.555	2.000	0.625	£55.75	£44.62
H20-64	64	4.525	4.625	2.000	0.625	£63.08	£50.60
H20-65	65	4.596	4.696	2.000	0.625	£63.13	£50.89
H20-66	66	4.667	4.767	2.000	0.625	£63.23	£51.69
H20-68	68	4.808	4.908	2.000	0.625	£63.27	£52.09
H20-70	70	4.950	5.050	2.000	0.625	£67.38	£53.89
H20-72	72	5.091	5.191	2.000	0.625	£71.22	£55.15
H20-73	73	5.162	5.262	2.000	0.625	£71.35	£56.15
H20-74	74	5.233	5.333	2.000	0.625	£71.43	£57.22
H20-76	76	5.374	5.474	2.000	0.625	£71.50	£57.97
H20-78	78	5.515	5.615	2.000	0.625	£71.56	£58.59
H20-80	80	5.657	5.757	2.000	0.625	£75.24	£60.40
H20-84	84	5.940	6.040	2.000	0.625	£75.47	£62.02
H20-88	88	6.223	6.323	2.000	0.750	£79.61	£63.67
H20-90	90	6.364	6.464	2.000	0.750	£79.83	£63.82
H20-96	96	6.788	6.888	2.000	0.750	£83.97	£67.13
H20-100	100	7.071	7.171	2.000	0.750	£84.30	£68.95
H20-112	112	7.920	8.020	2.000	0.750	£89.06	£74.37
H20-120	120	8.485	8.585	2.000	0.750	£92.73	£79.43
H20-130	130	9.192	9.292	2.000	0.750	£99.78	£86.52
H20-140	140	9.899	9.999	2.000	0.750	£106.81	£93.33

*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°

**20 DP**

45° H.A.  
20° P.A.

STD : White Delrin  
(fully machined)

SPECIAL TEETH : between 9 - 84

**SPECIALS**  
ON DEMAND

TORQUE CHECK	
50 teeth x 1000 rpm	
variations at back	TORQUE Nm. 0.40



RH 45°



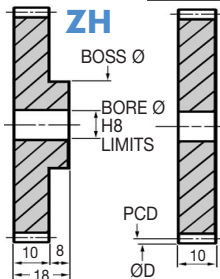
LH available on request.

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

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

PART NUMBER	TEETH	PCD (ins)	ØD (ins)	BOSS Ø (ins)	BORE Ø (mm)	PRICE EACH 1 - 5	ZH	ZPH
ZH20-9	9	0.707	0.807	0.590	5	£6.51	£4.98	
ZH20-10	10	0.707	0.807	0.590	5	£6.54	£4.99	
ZH20-11	11	0.778	0.878	0.629	5	£7.04	£5.46	
ZH20-12	12	0.849	0.949	0.629	6	£7.14	£5.52	
ZH20-13	13	0.919	1.019	0.629	6	£7.39	£5.72	
ZH20-14	14	0.990	1.090	0.708	6	£7.40	£5.73	
ZH20-15	15	1.061	1.161	0.708	6	£8.62	£6.65	
ZH20-16	16	1.131	1.231	0.708	6	£8.73	£6.71	
ZH20-17	17	1.202	1.302	0.708	6	£8.91	£6.75	
ZH20-18	18	1.273	1.373	0.708	6	£9.32	£7.10	
ZH20-19	19	1.344	1.444	0.708	6	£9.55	£7.36	
ZH20-20	20	1.414	1.514	0.708	6	£10.01	£7.64	
ZH20-21	21	1.485	1.585	0.708	6	£11.67	£8.93	
ZH20-22	22	1.556	1.656	0.708	6	£11.84	£9.04	
ZH20-23	23	1.626	1.726	0.708	6	£12.16	£9.30	
ZH20-24	24	1.697	1.797	0.708	6	£12.42	£9.51	
ZH20-25	25	1.768	1.868	0.708	6	£13.04	£9.95	
ZH20-26	26	1.838	1.938	0.708	6	£15.95	£12.22	
ZH20-27	27	1.909	2.009	0.708	6	£16.29	£12.44	
ZH20-28	28	1.980	2.080	0.866	8	£16.94	£13.02	
ZH20-29	29	2.051	2.151	0.866	8	£17.28	£13.27	
ZH20-30	30	2.121	2.221	0.866	8	£17.88	£13.68	
ZH20-31	31	2.192	2.292	0.866	8	£18.18	£13.95	

Helical Gears Crossed Axis Plastic DP 20

**25.60**



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PART NUMBER	TEETH	PCD (ins)	ØD (ins)	BOSS Ø (ins)	BORE Ø (mm)	PRICE EACH 1 - 5	
						ZH	ZPH
ZH20-32	32	2.263	2.363	0.866	8	£21.24	£16.25
ZH20-33	33	2.333	2.433	0.866	8	£21.48	£16.44
ZH20-34	34	2.404	2.504	0.866	8	£21.74	£16.68
ZH20-35	35	2.475	2.575	0.866	8	£22.12	£16.98
ZH20-36	36	2.546	2.646	0.866	8	£22.38	£17.18
ZH20-37	37	2.616	2.716	0.866	8	£22.90	£17.52
ZH20-38	38	2.687	2.787	0.866	8	£23.26	£17.87
ZH20-39	39	2.758	2.858	0.866	10	£23.45	£17.99
ZH20-40	40	2.828	2.928	1.023	10	£25.79	£18.66
ZH20-41	41	2.899	2.999	1.023	10	£26.04	£19.93
ZH20-42	42	2.970	3.070	1.023	10	£26.55	£20.37
ZH20-43	43	3.041	3.141	1.023	10	£26.93	£20.66
ZH20-44	44	3.111	3.211	1.023	10	£27.54	£21.09
ZH20-45	45	3.182	3.282	1.023	10	£27.74	£21.27
ZH20-46	46	3.253	3.353	1.023	10	£27.99	£21.48
ZH20-47	47	3.323	3.423	1.023	10	£28.23	£21.60
ZH20-48	48	3.394	3.494	1.023	10	£28.24	£21.62
ZH20-49	49	3.465	3.565	1.023	10	£31.50	£24.16
ZH20-50	50	3.536	3.636	1.023	10	£31.82	£24.38
ZH20-51	51	3.606	3.706	1.023	10	£31.86	£24.40
ZH20-52	52	3.677	3.777	1.023	10	£34.88	£26.70
ZH20-53	53	3.748	3.848	1.023	10	£35.54	£27.25
ZH20-54	54	3.818	3.918	1.023	10	£36.27	£27.88
ZH20-55	55	3.889	3.989	1.023	10	£37.02	£30.72
ZH20-56	56	3.960	4.060	1.023	10	£37.68	£32.37
ZH20-57	57	4.031	4.131	1.181	10	£44.91	£34.40
ZH20-58	58	4.101	4.201	1.181	10	£45.01	£34.51
ZH20-59	59	4.172	4.272	1.181	10	£45.04	£34.53
ZH20-60	60	4.243	4.343	1.181	10	£56.13	£43.04
ZH20-61	61	4.313	4.413	1.181	10	£56.21	£43.05
ZH20-62	62	4.384	4.484	1.181	10	£56.26	£43.13
ZH20-63	63	4.455	4.555	1.181	10	£61.83	£47.44
ZH20-64	64	4.525	4.625	1.181	10	£70.15	£53.82
ZH20-65	65	4.596	4.696	1.181	10	£70.23	£53.87
ZH20-66	66	4.667	4.767	1.181	10	£76.57	£58.72
ZH20-68	68	4.808	4.908	1.181	10	£76.64	£58.81
ZH20-70	70	4.950	5.050	1.181	10	£81.59	£62.61
ZH20-72	72	5.091	5.191	1.181	10	£86.42	£66.23
ZH20-73	73	5.162	5.262	1.574	12	£86.49	£66.32
ZH20-74	74	5.233	5.333	1.574	12	£86.53	£66.41
ZH20-76	76	5.374	5.474	1.574	12	£86.62	£66.44
ZH20-78	78	5.515	5.615	1.574	12	£86.64	£66.46
ZH20-80	80	5.657	5.757	1.574	12	£91.31	£70.02
ZH20-84	84	5.940	6.040	1.574	12	£91.39	£70.11

*'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.*

