

**HELICON 3.000" OD**

RATIO TO 1	OUTPUT SELECTION	Pinion Speed RPM											
		1	100	200	300	600	900	1,200	1,750	2,500	3,600	6,000	10,000
4 1/12	OUTPUT TORQUE (in lb)	549	475	443	421	377	348	326	296	267	238	199	163
	OUTPUT TORQUE (Nm)	62.0	53.7	50.1	47.6	42.6	39.3	36.8	33.4	30.2	26.9	22.5	18.4
	EFFICIENCY (%)	90.2	92.5	93.2	93.6	94.4	94.9	95.3	95.7	96.1	96.5	96.9	97.4
6 1/8	OUTPUT TORQUE (in lb)	511	439	409	388	346	318	297	269	243	216	179	146
	OUTPUT TORQUE (Nm)	57.7	49.6	46.2	43.8	39.1	35.9	33.6	30.4	27.5	24.4	20.2	16.5
	EFFICIENCY (%)	85.3	88.7	89.7	90.4	91.6	92.3	92.8	93.5	94.0	94.6	95.3	96.0
8 1/5	OUTPUT TORQUE (in lb)	518	445	414	392	348	320	298	269	242	215	178	144
	OUTPUT TORQUE (Nm)	58.5	50.3	46.8	44.3	39.3	36.2	33.7	30.4	27.3	24.3	20.1	16.3
	EFFICIENCY (%)	80.4	85.0	86.4	87.3	88.9	89.9	90.5	91.4	92.1	92.9	93.8	94.6
10 1/4	OUTPUT TORQUE (in lb)	655	556	514	485	429	392	364	328	294	259	214	173
	OUTPUT TORQUE (Nm)	74.0	62.8	58.1	54.8	48.5	44.3	41.1	37.1	33.2	29.3	24.2	19.5
	EFFICIENCY (%)	75.6	81.1	82.8	83.9	85.9	87.0	87.9	88.9	89.9	90.8	92.0	93.0
12 1/3	OUTPUT TORQUE (in lb)	704	589	543	511	448	408	378	339	303	266	218	175
	OUTPUT TORQUE (Nm)	79.5	66.5	61.4	57.7	50.6	46.1	42.7	38.3	34.2	30.1	24.6	19.8
	EFFICIENCY (%)	70.0	76.5	78.5	79.8	82.2	83.6	84.6	85.9	87.1	88.3	89.7	91.0
14 2/3	OUTPUT TORQUE (in lb)	702	586	539	507	444	404	374	335	299	262	215	172
	OUTPUT TORQUE (Nm)	79.3	66.2	60.9	57.3	50.2	45.6	42.3	37.8	33.8	29.6	24.3	19.4
	EFFICIENCY (%)	66.1	73.0	75.2	76.7	79.3	80.9	82.1	83.5	84.9	86.2	87.9	89.4
17 1/2	OUTPUT TORQUE (in lb)	921	759	695	651	566	512	473	422	374	327	266	212
	OUTPUT TORQUE (Nm)	104	85.8	78.5	73.6	63.9	57.8	53.4	47.7	42.3	36.9	30.1	24.0
	EFFICIENCY (%)	59.5	67.3	69.9	71.6	74.7	76.5	77.9	79.6	81.2	82.8	84.8	86.6
21 1/2	OUTPUT TORQUE (in lb)	914	751	687	643	559	505	466	415	368	321	261	208
	OUTPUT TORQUE (Nm)	103	84.9	77.6	72.6	63.2	57.1	52.7	46.9	41.6	36.3	29.5	23.5
	EFFICIENCY (%)	54.6	62.7	65.4	67.2	70.5	72.6	74.1	76.0	77.8	79.6	81.9	84.0
25 1/2	OUTPUT TORQUE (in lb)	979	803	733	686	594	536	494	440	389	339	275	218
	OUTPUT TORQUE (Nm)	111	90.7	82.8	77.5	67.1	60.6	55.8	49.7	44.0	38.3	31.1	24.6
	EFFICIENCY (%)	50.0	58.3	61.1	63.0	66.6	68.8	70.4	72.5	74.4	76.4	79.0	81.4
31	OUTPUT TORQUE (in lb)	909	734	666	620	533	478	439	388	341	296	238	188
	OUTPUT TORQUE (Nm)	103	82.9	75.2	70.1	60.2	54.0	49.6	43.8	38.5	33.4	26.9	21.2
	EFFICIENCY (%)	42.2	50.8	53.8	55.8	59.7	62.1	63.9	66.2	68.5	70.7	73.7	76.5
38	OUTPUT TORQUE (in lb)	973	784	711	661	566	507	465	410	360	311	249	196
	OUTPUT TORQUE (Nm)	110	88.6	80.3	74.7	63.9	57.3	52.5	46.3	40.7	35.1	28.1	22.1
	EFFICIENCY (%)	37.4	45.7	48.7	50.8	54.7	57.2	59.0	61.5	63.9	66.3	69.5	72.6
47	OUTPUT TORQUE (in lb)	960	773	700	650	555	497	454	400	350	302	241	189
	OUTPUT TORQUE (Nm)	108	87.3	79.1	73.4	62.7	56.2	51.3	45.2	39.5	34.1	27.2	21.4
	EFFICIENCY (%)	33.0	40.9	43.8	45.8	49.7	52.3	54.1	56.7	59.1	61.7	65.1	68.4
58	OUTPUT TORQUE (in lb)	1,031	828	747	693	589	525	479	420	367	315	250	195
	OUTPUT TORQUE (Nm)	116	93.6	84.4	78.3	66.5	59.3	54.1	47.5	41.5	35.6	28.2	22.0
	EFFICIENCY (%)	28.6	36.0	38.8	40.7	44.5	47.0	48.9	51.5	54.0	56.6	60.2	63.7
71	OUTPUT TORQUE (in lb)	1,020	817	735	680	576	511	466	407	353	302	238	184
	OUTPUT TORQUE (Nm)	115	92.3	83.0	76.8	65.1	57.7	52.7	46.0	39.9	34.1	26.9	20.8
	EFFICIENCY (%)	24.9	31.7	34.3	36.1	39.8	42.2	44.1	46.6	49.9	51.7	55.4	59.1
87	OUTPUT TORQUE (in lb)	1,011	806	723	667	561	496	450	391	338	287	225	172
	OUTPUT TORQUE (Nm)	114	91.1	81.7	75.4	63.4	56.0	50.8	44.2	38.2	32.4	25.4	19.4
	EFFICIENCY (%)	21.5	27.6	30.0	31.7	35.2	37.5	39.3	41.7	44.2	46.8	50.5	54.2
106	OUTPUT TORQUE (in lb)												
	OUTPUT TORQUE (Nm)												
	EFFICIENCY (%)												

The data in the chart above represents theoretical performance values for a given size and ratio range at various speeds. These values are not intended to represent actual gear sets that Spiroid maintains in stock. While Spiroid does maintain an inventory of cutting tools, our customer's specific applications will determine whether 'Stock' or 'Custom' cutting tools are appropriate. For more information on this, please see our 'Inquiry-to-Quote' Process.

