

**HELICON 8.250" 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)	11,333	9,049	8,178	7,592	6,493	5,817	5,335	4,711	4,144	3,596		
	OUTPUT TORQUE (Nm)	1,280	1,022	924	858	734	657	603	532	468	406		
	EFFICIENCY (%)	91.2	94.1	94.8	95.3	96.0	96.4	96.7	97.0	97.3	97.6		
6 1/8	OUTPUT TORQUE (in lb)	9,810	7,846	7,092	6,584	5,629	5,041	4,622	4,080	3,587	3,111		
	OUTPUT TORQUE (Nm)	1,108	886	801	744	636	570	522	461	405	351		
	EFFICIENCY (%)	87.6	91.5	92.6	93.2	94.2	94.8	95.2	95.7	96.1	96.5		
8 1/5	OUTPUT TORQUE (in lb)	9,119	7,268	6,550	6,067	5,164	4,611	4,218	3,712	3,254	2,814		
	OUTPUT TORQUE (Nm)	1,030	821	740	685	583	521	477	419	368	318		
	EFFICIENCY (%)	83.1	88.6	90.0	90.8	92.2	93.0	93.5	94.1	94.7	95.2		
10 1/4	OUTPUT TORQUE (in lb)	12,618	9,825	8,789	8,103	6,837	6,073	5,535	4,849	4,232	3,645		
	OUTPUT TORQUE (Nm)	1,426	1,110	993	916	772	686	625	548	478	412		
	EFFICIENCY (%)	78.8	85.4	87.1	88.2	89.9	90.9	91.6	92.4	93.1	93.8		
12 1/4	OUTPUT TORQUE (in lb)	13,108	10,144	9,057	8,340	7,021	6,228	5,671	4,961	4,325	3,721		
	OUTPUT TORQUE (Nm)	1,481	1,146	1,023	942	793	704	641	561	489	420		
	EFFICIENCY (%)	75.6	82.9	84.9	86.0	88.1	89.2	90.0	90.9	91.8	92.5		
14 2/3	OUTPUT TORQUE (in lb)	14,209	10,803	9,587	8,793	7,349	6,490	5,891	5,133	4,459	3,822		
	OUTPUT TORQUE (Nm)	1,605	1,221	1,083	993	830	733	666	580	504	432		
	EFFICIENCY (%)	70.1	78.7	81.1	82.5	85.0	86.3	87.3	88.5	89.5	90.5		
17 1/3	OUTPUT TORQUE (in lb)	14,212	10,764	9,539	8,740	7,290	6,430	5,832	5,075	4,403	3,770		
	OUTPUT TORQUE (Nm)	1,606	1,216	1,078	987	824	726	659	573	497	426		
	EFFICIENCY (%)	66.4	75.7	78.2	79.8	82.6	84.1	85.2	86.5	87.7	88.8		
21 1/2	OUTPUT TORQUE (in lb)	19,173	14,215	12,501	11,396	9,417	8,259	7,460	6,458	5,576	4,752		
	OUTPUT TORQUE (Nm)	2,166	1,606	1,412	1,288	1,064	933	843	730	630	537		
	EFFICIENCY (%)	58.9	69.5	72.5	74.4	77.7	79.6	80.9	82.6	84.0	85.4		
25 1/2	OUTPUT TORQUE (in lb)	19,062	14,104	12,389	11,285	9,309	8,154	7,358	6,362	5,486	4,669		
	OUTPUT TORQUE (Nm)	2,154	1,594	1,400	1,275	1,052	921	831	719	620	528		
	EFFICIENCY (%)	54.9	65.8	69.1	71.1	74.6	76.7	78.2	80.0	81.6	83.2		
31 1/2	OUTPUT TORQUE (in lb)	20,457	15,051	13,187	11,989	9,852	8,609	7,754	6,687	5,753	4,884		
	OUTPUT TORQUE (Nm)	2,311	1,701	1,490	1,355	1,113	973	876	756	650	552		
	EFFICIENCY (%)	49.3	60.6	64.1	66.3	70.2	72.5	74.1	76.1	78.0	79.8		
38	OUTPUT TORQUE (in lb)	19,038	13,684	11,883	10,740	8,729	7,576	6,791	5,821	4,980	4,204		
	OUTPUT TORQUE (Nm)	2,151	1,546	1,343	1,213	986	856	767	658	563	475		
	EFFICIENCY (%)	41.7	53.4	57.1	59.5	63.8	66.4	68.2	70.6	72.7	74.7		
47	OUTPUT TORQUE (in lb)	20,409	14,598	12,639	11,397	9,220	7,978	7,134	6,095	5,198	4,374		
	OUTPUT TORQUE (Nm)	2,306	1,649	1,428	1,288	1,042	901	806	689	587	494		
	EFFICIENCY (%)	36.8	48.2	51.9	54.4	58.8	61.5	63.5	66.0	68.3	70.5		
58	OUTPUT TORQUE (in lb)	20,104	14,330	12,371	11,130	8,961	7,728	6,893	5,869	4,987	4,182		
	OUTPUT TORQUE (Nm)	2,271	1,619	1,398	1,258	1,012	873	779	663	563	473		
	EFFICIENCY (%)	32.5	43.4	47.1	49.5	54.0	56.8	58.8	61.4	63.9	66.3		
71	OUTPUT TORQUE (in lb)	19,843	14,065	12,093	10,847	8,677	7,450	6,623	5,613	4,749	3,964		
	OUTPUT TORQUE (Nm)	2,242	1,589	1,366	1,226	980	842	748	634	537	448		
	EFFICIENCY (%)	28.6	38.8	42.4	44.7	49.2	52.0	54.1	56.8	59.3	61.9		
87	OUTPUT TORQUE (in lb)	19,614	13,789	11,790	10,531	8,352	7,130	6,312	5,318	4,474	3,713		
	OUTPUT TORQUE (Nm)	2,216	1,558	1,332	1,190	944	806	713	601	505	420		
	EFFICIENCY (%)	24.9	34.3	37.7	40.0	44.4	47.1	49.2	51.9	54.5	57.1		
106	OUTPUT TORQUE (in lb)	19,419	13,506	11,467	10,188	7,994	6,776	5,966	4,991	4,170	3,437		
	OUTPUT TORQUE (Nm)	2,194	1,526	1,296	1,151	903	766	674	564	471	388		
	EFFICIENCY (%)	21.6	30.2	33.4	35.5	39.7	42.4	44.4	47.1	49.7	52.4		

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.

