

HELICON 3.750" 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)	1,071	912	847	801	710	651	607	548	492	436	361	293
	OUTPUT TORQUE (Nm)	121	103	95.7	90.5	80.2	73.6	68.6	61.9	55.6	49.3	40.8	33.1
	EFFICIENCY (%)	90.4	92.8	93.6	94.0	94.8	95.3	95.6	96.0	96.4	96.7	97.2	97.6
6 1/8	OUTPUT TORQUE (in lb)	983	834	772	729	644	589	549	494	443	391	323	262
	OUTPUT TORQUE (Nm)	111	94.2	87.2	82.4	72.8	66.5	62.0	55.8	50.1	44.2	36.5	29.6
	EFFICIENCY (%)	85.8	89.4	90.4	91.1	92.3	92.9	93.4	94.0	94.6	95.1	95.7	96.3
8 1/5	OUTPUT TORQUE (in lb)	979	829	767	723	637	581	540	485	433	382	314	253
	OUTPUT TORQUE (Nm)	111	93.7	86.7	81.7	72.0	65.6	61.0	54.8	48.9	43.2	35.5	28.6
	EFFICIENCY (%)	81.0	85.8	87.2	88.1	89.7	90.6	91.3	92.1	92.8	93.5	94.3	95.1
10 1/4	OUTPUT TORQUE (in lb)	1,246	1,040	956	898	786	714	661	592	527	462	378	304
	OUTPUT TORQUE (Nm)	141	118	108	101	88.8	80.7	74.7	66.9	59.5	52.2	42.7	34.3
	EFFICIENCY (%)	76.4	82.1	83.8	84.9	86.9	88.0	88.8	89.8	90.7	91.6	92.7	93.6
12 1/3	OUTPUT TORQUE (in lb)	1,344	1,107	1,013	948	824	745	689	614	544	476	388	310
	OUTPUT TORQUE (Nm)	152	125	114	107	93.1	84.2	77.8	69.4	61.5	53.8	43.8	35.0
	EFFICIENCY (%)	70.9	77.7	79.8	81.1	83.4	84.8	85.8	87.0	88.1	89.2	90.6	91.8
14 2/3	OUTPUT TORQUE (in lb)	1,345	1,104	1,009	944	818	740	683	608	538	470	382	305
	OUTPUT TORQUE (Nm)	152	125	114	107	92.4	83.6	77.2	68.7	60.8	53.1	43.2	34.5
	EFFICIENCY (%)	67.0	74.3	76.6	78.1	80.7	82.3	83.3	84.8	86.0	87.3	88.9	90.3
17 1/2	OUTPUT TORQUE (in lb)	1,772	1,432	1,301	1,212	1,043	938	863	764	674	586	473	376
	OUTPUT TORQUE (Nm)	200	162	147	137	118	106	97.5	86.3	76.2	66.2	53.4	42.5
	EFFICIENCY (%)	60.5	68.8	71.4	73.1	76.2	78.0	79.3	81.0	82.5	84.0	86.0	87.7
21 1/2	OUTPUT TORQUE (in lb)	1,904	1,533	1,391	1,294	1,112	998	916	811	714	619	499	395
	OUTPUT TORQUE (Nm)	215	173	157	146	126	113	103	91.6	80.7	69.9	56.4	44.6
	EFFICIENCY (%)	55.2	63.9	66.8	68.6	72.0	74.0	75.5	77.4	79.1	80.8	83.1	85.0
25 1/2	OUTPUT TORQUE (in lb)	1,887	1,517	1,375	1,279	1,097	984	902	797	701	608	489	386
	OUTPUT TORQUE (Nm)	213	171	155	145	124	111	102	90.0	79.2	68.7	55.2	43.6
	EFFICIENCY (%)	51.0	59.9	62.9	64.8	68.4	70.6	72.2	74.2	76.1	78.0	80.5	82.7
31	OUTPUT TORQUE (in lb)	1,754	1,386	1,248	1,155	981	875	799	702	613	529	422	331
	OUTPUT TORQUE (Nm)	198	157	141	130	111	98.9	90.3	79.3	69.3	59.8	47.7	37.4
	EFFICIENCY (%)	43.1	52.4	55.5	57.6	61.6	64.0	65.8	68.2	70.3	72.5	75.4	78.0
38	OUTPUT TORQUE (in lb)	1,877	1,480	1,330	1,229	1,041	926	845	740	646	556	442	345
	OUTPUT TORQUE (Nm)	212	167	150	139	118	105	95.5	83.6	73.0	62.8	49.9	39.0
	EFFICIENCY (%)	38.3	47.3	50.5	52.6	56.7	59.2	61.1	63.6	65.9	68.3	71.4	74.3
47	OUTPUT TORQUE (in lb)	1,850	1,458	1,308	1,208	1,020	906	825	721	627	538	426	332
	OUTPUT TORQUE (Nm)	209	165	148	136	115	102	93.2	81.5	70.8	60.8	48.1	37.5
	EFFICIENCY (%)	33.9	42.5	45.6	47.7	51.8	54.4	56.3	58.8	61.3	63.8	67.2	70.3
58	OUTPUT TORQUE (in lb)	1,987	1,559	1,395	1,285	1,081	956	868	756	655	560	441	341
	OUTPUT TORQUE (Nm)	225	176	158	145	122	108	98.1	85.4	74.0	63.3	49.8	38.5
	EFFICIENCY (%)	29.4	37.5	40.5	42.5	46.5	49.1	51.0	53.6	56.2	58.8	62.3	65.7
71	OUTPUT TORQUE (in lb)	1,965	1,537	1,371	1,260	1,054	929	841	730	630	536	419	322
	OUTPUT TORQUE (Nm)	222	174	155	142	119	105	95.0	82.5	71.2	60.6	47.3	36.4
	EFFICIENCY (%)	25.7	33.1	35.9	37.9	41.8	44.3	46.2	48.8	51.4	54.0	57.7	61.2
87	OUTPUT TORQUE (in lb)	1,945	1,514	1,346	1,233	1,024	899	810	699	600	508	394	301
	OUTPUT TORQUE (Nm)	220	171	152	139	116	102	91.5	79.0	67.8	57.4	44.5	34.0
	EFFICIENCY (%)	22.2	29.0	31.6	33.4	37.1	39.5	41.4	43.9	46.4	49.1	52.8	56.5
106	OUTPUT TORQUE (in lb)	1,930	1,493	1,320	1,205	992	865	776	665	567	476	366	277
	OUTPUT TORQUE (Nm)	218	169	149	136	112	97.7	87.7	75.1	64.1	53.8	41.4	31.3
	EFFICIENCY (%)	19.1	25.2	27.6	29.3	32.7	35.0	36.8	39.2	41.7	44.3	48.0	51.7

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.

