

Save on Energy Costs with Quantis



With energy costs constantly rising, it's critical to identify opportunities that positively impact the bottom line.

Dodge QUANTIS® helical bevel gearing delivers significant energy savings over traditional worm or helical worm gears. When coupled with **Reliance Electric XE Premium Efficient motors**, even greater savings are achieved.

Contact Applied Industrial Technologies® to learn more about Dodge QUANTIS® helical bevel gearing and other products that can assist in your overall gearing efficiency.

CALCULATE YOUR POTENTIAL ENERGY SAVINGS:

Annual savings is based on \$0.08 per kilowatt hour, 7200 hours of operation per year.

Watts Saved = HP x 746 x [1 - (Existing Worm Gear Efficiency / Quantis Helical Gear Efficiency)]

\$ Savings per Year = (Hours Operation/Year) (Power Cost per Kwh) (Watts Saved) / 1000

Payback in Years = Difference in Hardware Cost / \$ Savings per Year

Example: Step one: Replace 1 HP, 1750 rpm input, 40:1 ratio worm gear with QUANTIS helical reducer.
Watts saved = 1 x 746 x [1 - (.69 / .95)] = 204
Savings per year = 7200 x .08 x 204 / 1000 = \$118

Step two: Replace 74% efficient standard motor with 86.5% efficient Reliance XE motor.
\$ Savings per year (from table) = \$84

**Step three: TOTAL QUANTIS RHB + XE MOTOR
ENERGY COST SAVINGS PER YEAR = \$202**

Authorized Distributor:

A product of:



ENERGY EFFICIENCY

QUANTIS HIGH EFFICIENCY RHB MODULAR HELICAL GEAR REDUCER

HP	Gear Ratio	QUANTIS RHB - HELICAL BEVEL Efficiency	WORM or HELICAL WORM Efficiency *	Watts Saved	QUANTIS RHB Energy Savings per Year	Standard Efficient Motor Efficiency	Reliance XE Motor Efficiency	Motor Energy Savings per Year	QUANTIS + XE Motor Energy Savings per Year
1/2 @ 1750 rpm	10:1	95%	81%	55	\$32	66.0%	84.0%	\$70	\$101
	20:1	95%	71%	94	\$54	66.0%	84.0%	\$70	\$124
	30:1	95%	68%	106	\$61	66.0%	84.0%	\$70	\$131
	40:1	95%	65%	118	\$68	66.0%	84.0%	\$70	\$138
	50:1	95%	62%	130	\$75	66.0%	84.0%	\$70	\$144
	100:1	95%	62%	130	\$75	66.0%	84.0%	\$70	\$144
3/4 @ 1750 rpm	10:1	95%	81%	82	\$47	70.0%	86.5%	\$88	\$135
	20:1	95%	77%	106	\$61	70.0%	86.5%	\$88	\$149
	30:1	95%	68%	159	\$92	70.0%	86.5%	\$88	\$179
	40:1	95%	68%	159	\$92	70.0%	86.5%	\$88	\$179
	50:1	95%	66%	171	\$98	70.0%	86.5%	\$88	\$186
	100:1	95%	65%	177	\$102	70.0%	86.5%	\$88	\$190
1 @ 1750 rpm	10:1	95%	83%	98	\$57	74.0%	86.5%	\$84	\$140
	20:1	95%	77%	141	\$81	74.0%	86.5%	\$84	\$165
	30:1	95%	76%	149	\$86	74.0%	86.5%	\$84	\$170
	40:1	95%	69%	204	\$118	74.0%	86.5%	\$84	\$202
	50:1	95%	66%	228	\$131	74.0%	86.5%	\$84	\$215
	100:1	95%	65%	236	\$136	74.0%	86.5%	\$84	\$220
1 1/2 @ 1750 rpm	10:1	95%	86%	106	\$61	75.5%	87.5%	\$117	\$178
	20:1	95%	84%	130	\$75	75.5%	87.5%	\$117	\$192
	30:1	95%	78%	200	\$115	75.5%	87.5%	\$117	\$232
	40:1	95%	72%	271	\$156	75.5%	87.5%	\$117	\$273
	50:1	95%	68%	318	\$183	75.5%	87.5%	\$117	\$300
	100:1	95%	67%	330	\$190	75.5%	87.5%	\$117	\$307
2 @ 1750 rpm	10:1	95%	87%	126	\$72	78.5%	87.5%	\$113	\$185
	20:1	95%	83%	188	\$109	78.5%	87.5%	\$113	\$221
	30:1	95%	78%	267	\$154	78.5%	87.5%	\$113	\$266
	40:1	95%	72%	361	\$208	78.5%	87.5%	\$113	\$321
	50:1	95%	82%	204	\$118	78.5%	87.5%	\$113	\$230
	100:1	95%	73%	346	\$199	78.5%	87.5%	\$113	\$312
3 @ 1750 rpm	10:1	95%	88%	165	\$95	75.5%	88.5%	\$251	\$346
	20:1	95%	83%	283	\$163	75.5%	88.5%	\$251	\$414
	30:1	95%	82%	306	\$176	75.5%	88.5%	\$251	\$427
	40:1	95%	82%	306	\$176	75.5%	88.5%	\$251	\$427
	50:1	95%	82%	306	\$176	75.5%	88.5%	\$251	\$427
	100:1	95%	73%	518	\$299	75.5%	88.5%	\$251	\$549
5 @ 1750 rpm	10:1	95%	90%	196	\$113	80.0%	90.2%	\$304	\$417
	20:1	95%	84%	432	\$249	80.0%	90.2%	\$304	\$552
	30:1	95%	87%	314	\$181	80.0%	90.2%	\$304	\$485
	40:1	95%	86%	353	\$204	80.0%	90.2%	\$304	\$507
	50:1	95%	86%	353	\$204	80.0%	90.2%	\$304	\$507
	100:1	95%	75%	785	\$452	80.0%	90.2%	\$304	\$756
7 1/2 @ 1750 rpm	10:1	95%	90%	294	\$170	81.5%	91.0%	\$413	\$582
	20:1	95%	90%	294	\$170	81.5%	91.0%	\$413	\$582
	30:1	95%	87%	471	\$271	81.5%	91.0%	\$413	\$684
	40:1	95%	88%	412	\$237	81.5%	91.0%	\$413	\$650
	50:1	95%	87%	471	\$271	81.5%	91.0%	\$413	\$684
	100:1	95%	77%	1060	\$611	81.5%	91.0%	\$413	\$1,023
10 @ 1750 rpm	10:1	95%	92%	236	\$136	82.5%	91.7%	\$523	\$658
	20:1	95%	91%	314	\$181	82.5%	91.7%	\$523	\$703
	30:1	95%	89%	471	\$271	82.5%	91.7%	\$523	\$794
	40:1	95%	88%	550	\$317	82.5%	91.7%	\$523	\$839
	50:1	95%	89%	471	\$271	82.5%	91.7%	\$523	\$794
	100:1	95%	77%	1413	\$814	82.5%	91.7%	\$523	\$1,337
15 @ 1750 rpm	10:1	95%	92%	353	\$204	82.5%	92.4%	\$837	\$1,041
	20:1	95%	92%	353	\$204	82.5%	92.4%	\$837	\$1,041
	30:1	95%	90%	589	\$339	82.5%	92.4%	\$837	\$1,176
	40:1	95%	90%	589	\$339	82.5%	92.4%	\$837	\$1,176
	50:1	95%	89%	707	\$407	82.5%	92.4%	\$837	\$1,244

* Shaded cells represent helical worm gear data.

Contact Your Local Applied Service Center
1-877-279-2799



WARNING: Injury, death, property damage, and/or equipment failure may result from misuse or misapplication of the products featured in this publication. The information in this publication is provided "AS IS," WITHOUT WARRANTY OF THE INFORMATION'S ACCURACY OR THE PRODUCTS' SUITABILITY FOR ANY PARTICULAR USE.

Corporate Headquarters
One Applied Plaza
Cleveland, Ohio 44115
Toll Free Phone: 1-877-279-2799
Applied.com