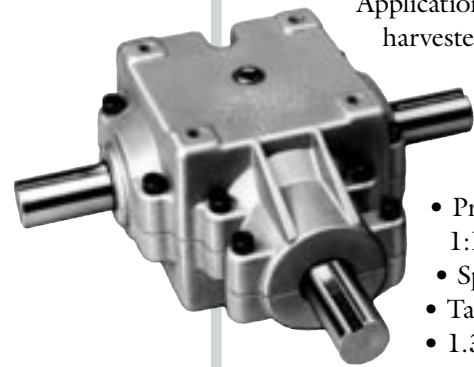




# 500 Series



Applications include grain carts, mowers, combines, grain augers, potato harvesters, agricultural sprayers, irrigation pumps and conveyers.

### Features:

- Two-piece aluminum housing for high strength, corrosion resistance and thermal capacity
- Precision machined for exact gear mesh and bearing preload
- Precision forged gears are offered in four ratios: 1:1, 1.35:1, 1.5:1 and 2:1
- Spiral bevel available in 1:1
- Tapered roller bearings provide increased load capacity and bearing life
- 1.375" shaft made of high strength steel is standard; 1.50" shaft available on limited options
- Serviced with 80W90 gear lubricant, run and leak tested before shipment
- The 500 Series weighs 25/30 lbs. including 28 oz of lubricant

Rating Chart						
Ratio <sup>1</sup>	Gear Design		Input RPM			
			100	540	1000	
Miter	1:1	21, 21 Forged Straight Bevel	Input HP	18.18	71.70	103.57
			Output Torque*	11458	8368	6527
			Input kW	13.56	53.47	77.23
	1:1	21, 21 Cut Spiral Bevel	Input HP	5.38	22.86	34.63
			Output Torque*	3391	2668	2183
			Input kW	4.01	17.05	25.82
Reducers	1.35:1	20, 27 Forged Straight Bevel	Input HP	13.51	54.88	80.73
			Output Torque*	11495	8647	6869
			Input kW	10.07	40.92	60.20
	2:1	17, 34 Forged Straight Bevel	Input HP	5.25	23.71	37.47
			Output Torque*	6618	5535	4723
			Input kW	3.91	17.68	27.94
Increases	1:1.35	27, 20 Forged Straight Bevel	Input HP	17.77	67.02	94.25
			Output Torque*	8296	5794	4400
			Input kW	13.25	49.98	70.28
	1:1.5	30, 20 Forged Straight Bevel	Input HP	10.89	42.72	61.53
			Output Torque*	4576	3324	2585
			Input kW	8.12	31.86	45.88
			Output Torque**	517	376	292

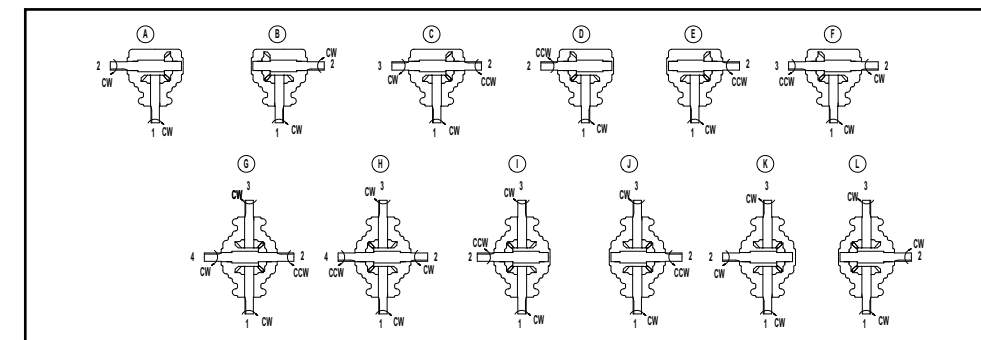
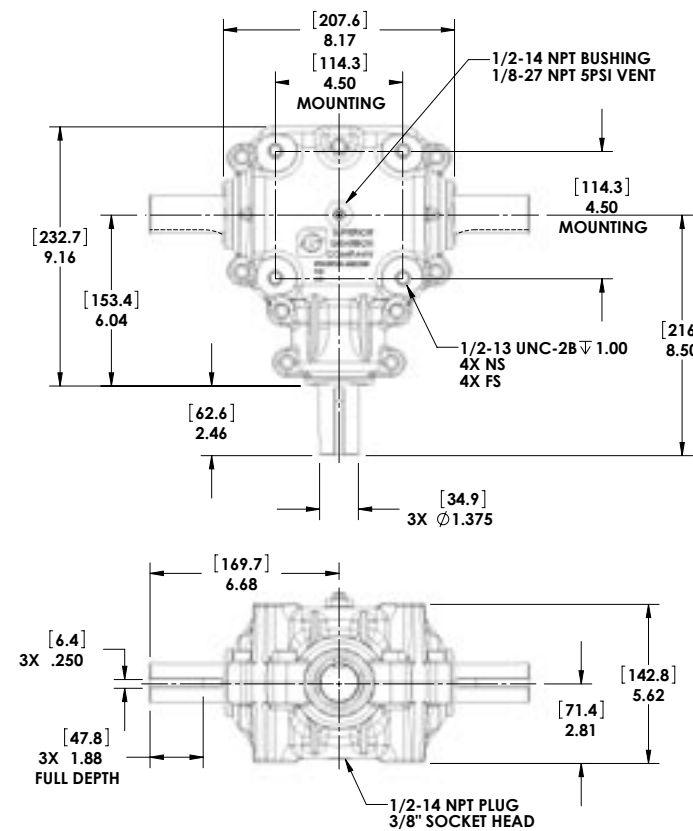
<sup>1</sup> All ratings specified with the #1 shaft as the input  
 \*Torque measured in inch-lbs \*\*Torque measured in N-m

See information under Service Factors

Character of Shock Driven Machine	Character of Power Source Shock Load											
	Electric Motor Uniform				Multi-Cylinder Engine Light Shock				Single-Cylinder Engine Medium Shock			
	Duration of Service (Hours per Day)											
	.5	3	10	24	.5	3	10	24	.5	3	10	24
Uniform	0.60	0.80	1.00**	1.25	0.80	1.00	1.25	1.50	1.00	1.25	1.50	1.75
Moderate	0.80	1.00	1.25	1.50	1.00	1.25	1.50	1.75	1.25	1.50	1.75	2.00
Heavy	1.25	1.50	1.75	2.00	1.50	1.75	2.00	2.25	1.50	1.75	2.25	2.50

\* Divide the horsepower rating by the service factor to obtain the design horsepower. \*\* AGMA Class 1 Service

LIMITATIONS ON HORSEPOWER AND TORQUE RATINGS: The horsepower and torque ratings given here are generalizations. Different conditions for various applications may result in higher or lower horsepower capacities. Under certain conditions the maximum indicated rpm may be exceeded. For these reasons the ratings cannot be guaranteed for any application. Prototype testing should be conducted for each application before production.



Contact Superior Gearbox for your special requirements.