



**MICRON**

# XTRUE™ True Planetary Gearheads

## Cost Effective Precision Gearheads

### Description

The XTRUE Series is a new precision gearhead that complements our True Planetary™ Gearhead line, already the largest selection of planetary gearheads in the world.

### Benefits

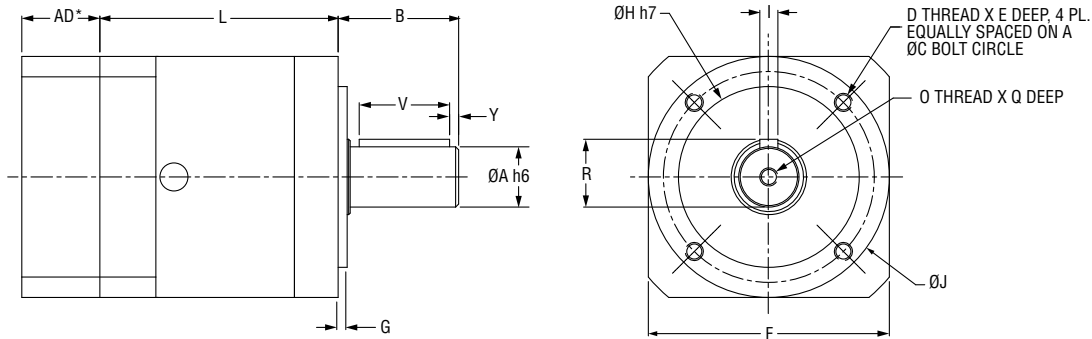
- Move a larger load more easily and quietly with True planetary gearing through improved load capacity, lower backlash and quieter operation.
- Experience less downtime with the flexible mounting system: RediMount™ system mounts to any motor in 3 easy steps; align, mount and tighten.
- Simplify replacement with the tapped face output which enables easy drop-in replacement.
- Go green on your machine when the assembly and all components meet EU Directive 2002/95/EC (RoHS)

### Features

- Frame sizes (5): 40mm, 60mm, 80mm, 120mm, 160mm
- Precision: 13 arc-mins
- Torque capacity: up to 876 Nm
- Ratio availability: 3:1 thru 100:1

# XTRUE™

## True Planetary™ Gearheads



\*AD = Adapter Length  
 Adapter Length will vary depending on motor. Consult customer service for details.

Dimensions									
Part Number	A Output Shaft Diameter mm [in]	B Output Shaft Length mm [in]	Y Shaft End Distance mm [in]	V Key Length mm [in]	R Key Height mm [in]	I Key Width mm [in]	H Pilot Diameter mm [in]	J Body Diameter mm [in]	G Pilot Length mm [in]
XT040	10 [0.39]	26 [1.02]	2.5 [0.10]	18 [0.71]	11.2 [0.44]	3 [0.12]	26 [1.02]	40 [1.57]	2 [0.08]
XT060	14 [0.55]	35 [1.37]	2.5 [0.10]	25 [0.98]	16 [0.63]	5 [0.20]	40 [1.57]	60 [2.36]	3 [0.12]
XT080	20 [0.79]	40 [1.57]	4.0 [0.16]	28 [1.10]	22.5 [0.89]	6 [0.24]	60 [2.36]	80 [3.15]	3 [0.12]
XT120	25 [0.98]	55 [2.16]	5.0 [0.20]	40 [1.57]	28 [1.10]	8 [0.31]	80 [3.15]	115 [4.53]	4 [0.16]
XT160	40 [1.57]	87 [3.42]	8.0 [0.32]	65 [2.55]	43 [1.69]	12 [0.47]	130 [5.12]	160 [6.30]	5 [0.20]

Dimensions								
Part Number	D Thread	E Thread Depth mm [in]	O Output Shaft Thread	Q Thread Depth mm [in]	F Flange Square mm [in]	L Length mm [in]		C Bolt Circle mm [in]
						3:1 - 10:1	15:1 - 100:1	
XT040	M4	6 [0.24]	M3	9 [0.35]	42 [1.65]	36.5 [1.43]	49.5 [1.94]	34 [1.34]
XT060	M5	8 [0.31]	M5	12 [0.47]	61 [2.40]	51 [2.00]	68 [2.67]	52 [2.05]
XT080	M6	10 [0.39]	M6	16 [0.63]	90 [3.54]	67 [2.64]	90 [3.54]	70 [2.76]
XT120	M10	16 [0.63]	M10	22 [0.87]	119 [4.53]	87.3 [3.44]	179 [4.67]	100 [3.94]
XT160	M12	20 [0.79]	M16	36 [1.42]	142 [5.59]	119.6 [4.71]	168.9 [6.65]	145 [5.71]

Specifications						
Part Number	Stages	Backlash (arc-min)	Efficiency	Weight		Ratio Availability
				kg	[lbs]	
XT040	1	13	93%	0.45	[1.0]	3:1, 5:1, 10:1 15:1, 25:1, 30:1, 50:1, 100:1
	2	15	88%	0.5	[1.1]	
XT060	1	13	93%	1.0	[2.2]	3:1, 4:1, 5:1, 7:1, 10:1 15:1, 20:1, 25:1, 30:1, 40:1, 50:1, 70:1, 100:1
	2	15	88%	1.2	[2.6]	
XT080	1	13	93%	3.0	[6.6]	3:1, 4:1, 5:1, 7:1, 8:1, 10:1 15:1, 20:1, 25:1, 30:1, 40:1, 50:1, 70:1, 80:1, 100:1
	2	15	88%	3.7	[8.1]	
XT120	1	13	93%	5.7	[12.5]	3:1, 4:1, 5:1, 7:1, 10:1 15:1, 20:1, 25:1, 30:1, 40:1, 50:1, 70:1, 100:1
	2	15	88%	7.3	[16.1]	
XT160	1	13	93%	12.8	[28.2]	3:1, 4:1, 5:1, 7:1, 10:1 15:1, 20:1, 25:1, 30:1, 40:1, 50:1, 70:1, 100:1
	2	15	88%	17.2	[37.8]	

Specifications subject to change without notice.

# XTRUE™

## True Planetary™ Gearheads

Performance Specifications									
Part Number	Ratio	20,000 Hour Life				T <sub>peak</sub> Nm [in-lb]	J kg-cm <sup>2</sup> [in-lb-sec <sup>2</sup> *10 <sup>-4</sup> ]	Torsional Stiffness Nm/arc-min [in-lb/arc-min]	
		T <sub>r</sub> (1000 rpm) Nm [in-lb]	T <sub>r</sub> (2000 rpm) Nm [in-lb]	T <sub>r</sub> (3000 rpm) Nm [in-lb]	T <sub>r</sub> (4000 rpm) Nm [in-lb]				
XT040	XT040-003	3:1	5.2 [46]	4.2 [37]	3.7 [33]	3.4 [30]	15.6 [138]	0.013 [0.12]	0.7 [6.2]
	XT040-005	5:1	6.1 [54]	5.3 [47]	3.6 [32]	4.3 [38]	18.3 [162]	0.005 [0.04]	0.7 [6.2]
	XT040-010	10:1	5.8 [51]	4.6 [41]	4.1 [36]	3.7 [33]	17.2 [152]	0.003 [0.03]	0.7 [6.2]
	XT040-015	15:1	8.4 [74]	6.8 [60]	6.0 [53]	5.5 [49]	25.2 [223]	0.004 [0.04]	0.7 [6.2]
	XT040-025	25:1	9.3 [82]	7.6 [67]	6.7 [59]	6.1 [54]	27.8 [246]	0.004 [0.04]	0.7 [6.2]
	XT040-030	30:1	9.5 [84]	8.4 [74]	7.5 [66]	6.8 [60]	28.6 [253]	0.003 [0.03]	0.7 [6.2]
	XT040-050	50:1	11.3 [100]	9.3 [82]	8.2 [73]	7.6 [67]	33.8 [299]	0.003 [0.03]	0.7 [6.2]
XT040-100	100:1	8.1 [72]	7.5 [66]	7.1 [63]	6.9 [61]	24.4 [216]	0.003 [0.03]	0.7 [6.2]	
XT060	XT060-003	3:1	16 [139]	13 [112]	12 [102]	11 [93]	55 [483]	0.52 [4.6]	1.8 [15.9]
	XT060-004	4:1	20 [177]	17 [149]	15 [130]	14 [121]	46 [409]	0.46 [4.1]	1.8 [15.9]
	XT060-005	5:1	18 [158]	15 [130]	13 [112]	12 [102]	48 [427]	0.46 [4.1]	1.8 [15.9]
	XT060-007	7:1	17 [149]	14 [121]	12 [102]	11 [93]	43 [381]	0.46 [4.1]	1.8 [15.9]
	XT060-010	10:1	16 [139]	15 [130]	14 [121]	13 [112]	47 [418]	0.44 [3.9]	1.8 [15.9]
	XT060-015	15:1	26 [232]	21 [186]	19 [167]	17 [149]	55 [483]	0.46 [4.1]	1.8 [15.9]
	XT060-020	20:1	27 [242]	25 [223]	22 [195]	21 [186]	48 [427]	0.46 [4.1]	1.8 [15.9]
	XT060-025	25:1	25 [223]	23 [204]	20 [177]	19 [167]	55 [483]	0.46 [4.1]	1.8 [15.9]
	XT060-030	30:1	29 [260]	26 [232]	23 [204]	21 [186]	55 [483]	0.46 [4.1]	1.8 [15.9]
	XT060-040	40:1	28 [251]	27 [242]	27 [242]	25 [223]	48 [427]	0.44 [3.9]	1.8 [15.9]
	XT060-050	50:1	26 [232]	25 [223]	25 [223]	23 [204]	55 [483]	0.44 [3.9]	1.8 [15.9]
	XT060-070	70:1	25 [223]	24 [214]	24 [214]	22 [195]	48 [427]	0.44 [3.9]	1.8 [15.9]
	XT060-100	100:1	21 [186]	20 [177]	19 [167]	18 [158]	43 [381]	0.44 [3.9]	1.8 [15.9]
XT080	XT080-003	3:1	59 [520]	48 [427]	43 [381]	39 [344]	165 [1459]	2.2 [19.5]	5.4 [47.8]
	XT080-004	4:1	70 [623]	58 [511]	53 [465]	48 [427]	165 [1459]	1.8 [15.9]	5.4 [47.8]
	XT080-005	5:1	65 [576]	53 [465]	47 [418]	43 [381]	165 [1459]	1.8 [15.9]	5.4 [47.8]
	XT080-007	7:1	63 [558]	50 [446]	45 [400]	40 [353]	165 [1459]	1.7 [15.0]	5.4 [47.8]
	XT080-008	8:1	62 [549]	49 [434]	45 [398]	42 [372]	165 [1460]	1.6 [14.2]	5.4 [47.8]
	XT080-010	10:1	54 [474]	48 [427]	45 [400]	43 [381]	165 [1459]	1.8 [15.9]	5.4 [47.8]
	XT080-015	15:1	90 [799]	78 [688]	69 [613]	63 [558]	175 [1552]	1.8 [15.9]	5.4 [47.8]
	XT080-020	20:1	92 [818]	88 [781]	81 [716]	75 [660]	175 [1552]	1.5 [13.3]	5.4 [47.8]
	XT080-025	25:1	87 [771]	83 [734]	76 [669]	69 [613]	175 [1552]	1.7 [15.0]	5.4 [47.8]
	XT080-030	30:1	100 [883]	90 [799]	85 [753]	78 [688]	175 [1552]	1.7 [15.0]	5.4 [47.8]
	XT080-040	40:1	96 [846]	92 [818]	90 [799]	88 [781]	175 [1552]	1.6 [14.2]	5.4 [47.8]
	XT080-050	50:1	90 [799]	87 [771]	85 [753]	83 [734]	175 [1552]	1.6 [14.2]	5.4 [47.8]
	XT080-070	70:1	88 [781]	85 [753]	83 [734]	82 [725]	175 [1552]	1.6 [14.2]	5.4 [47.8]
	XT080-080	80:1	84 [743]	80 [708]	78 [690]	74 [655]	175 [1549]	1.6 [14.2]	5.4 [47.8]
XT080-100	100:1	72 [641]	67 [595]	63 [558]	61 [539]	175 [1552]	1.6 [14.2]	5.4 [47.8]	

T<sub>r</sub> = Rated output torque at rated speed for specific hours of life.

T<sub>peak</sub> = Allowable momentary peak torque for emergency stop or heavy shock loading.

J = Mass moment of inertia reflected to the input shaft (including pinion assembly).

Specifications subject to change without notice.

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## True Planetary™ Gearheads

Performance Specifications									
Part Number	Ratio	20,000 Hour Life				T <sub>peak</sub> Nm [in-lb]	J kg-cm <sup>2</sup> [in-lb-sec <sup>2</sup> *10 <sup>-4</sup> ]	Torsional Stiffness Nm/arc-min [in-lb/arc-min]	
		T <sub>r</sub> (1000 rpm) Nm [in-lb]	T <sub>r</sub> (2000 rpm) Nm [in-lb]	T <sub>r</sub> (3000 rpm) Nm [in-lb]	T <sub>r</sub> (4000 rpm) Nm [in-lb]				
XT120	XT120-003	3:1	90 [799]	74 [650]	65 [576]	59 [520]	298 [2639]	4.4 [39]	17.4 [154.0]
	XT120-004	4:1	107 [948]	89 [790]	79 [697]	74 [650]	298 [2639]	3 [27]	17.4 [154.0]
	XT120-005	5:1	99 [873]	81 [716]	71 [632]	65 [576]	298 [2639]	2.9 [26]	17.4 [154.0]
	XT120-007	7:1	97 [855]	79 [697]	68 [604]	63 [558]	298 [2639]	2.8 [25]	17.4 [154.0]
	XT120-010	10:1	87 [771]	79 [697]	74 [650]	69 [613]	298 [2639]	2.5 [22]	17.4 [154.0]
	XT120-015	15:1	146 [1292]	119 [1050]	105 [929]	96 [846]	298 [2639]	2.9 [26]	17.4 [154.0]
	XT120-020	20:1	169 [1496]	139 [1227]	124 [1097]	114 [1013]	298 [2639]	2.9 [26]	17.4 [154.0]
	XT120-025	25:1	161 [1422]	130 [1152]	116 [1022]	106 [939]	298 [2639]	2.9 [26]	17.4 [154.0]
	XT120-030	30:1	180 [1589]	146 [1292]	129 [1143]	119 [1050]	298 [2639]	2.5 [22]	17.4 [154.0]
	XT120-040	40:1	187 [1654]	169 [1496]	150 [1329]	139 [1227]	298 [2639]	2.5 [22]	17.4 [154.0]
XT160	XT160-003	3:1	317 [2806]	257 [2277]	228 [2016]	209 [1849]	876 [7750]	23 [204]	50.5 [446.9]
	XT160-004	4:1	371 [3280]	305 [2695]	272 [2407]	251 [2221]	876 [7750]	15 [133]	50.5 [446.9]
	XT160-005	5:1	350 [3094]	284 [2509]	251 [2221]	230 [2035]	876 [7750]	14 [124]	50.5 [446.9]
	XT160-007	7:1	344 [3048]	278 [2463]	246 [2174]	225 [1989]	876 [7750]	15 [133]	50.5 [446.9]
	XT160-010	10:1	222 [1961]	198 [1756]	185 [1635]	175 [1552]	876 [7750]	12 [106]	50.5 [446.9]
	XT160-015	15:1	508 [4498]	417 [3689]	370 [3271]	339 [3001]	876 [7750]	15 [133]	50.5 [446.9]
	XT160-020	20:1	513 [4544]	481 [4256]	428 [3791]	395 [3494]	876 [7750]	15 [133]	50.5 [446.9]
	XT160-025	25:1	492 [4358]	460 [4070]	407 [3605]	374 [3308]	876 [7750]	15 [133]	50.5 [446.9]
	XT160-030	30:1	562 [4971]	508 [4498]	455 [4024]	417 [3689]	876 [7750]	12 [106]	50.5 [446.9]
	XT160-040	40:1	536 [4739]	513 [4544]	500 [4423]	481 [4256]	876 [7750]	13 [115]	50.5 [446.9]
XT160	XT160-050	50:1	515 [4553]	492 [4358]	479 [4237]	460 [4070]	876 [7750]	12 [106]	50.5 [446.9]
	XT160-070	70:1	509 [4507]	487 [4312]	474 [4191]	455 [4024]	876 [7750]	12 [106]	50.5 [446.9]
	XT160-100	100:1	306 [2704]	279 [2472]	265 [2342]	254 [2249]	876 [7750]	12 [106]	50.5 [446.9]

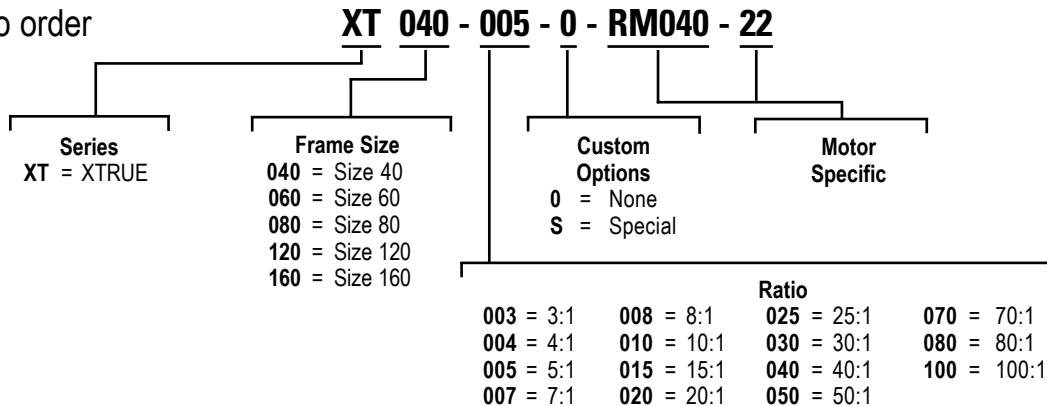
T<sub>r</sub> = Rated output torque at rated speed for specific hours of life.

Specifications subject to change without notice.

T<sub>peak</sub> = Allowable momentary peak torque for emergency stop or heavy shock loading.

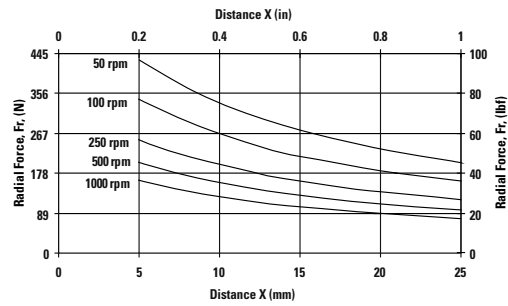
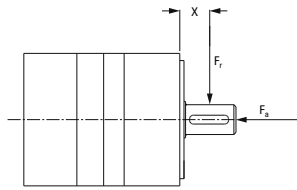
J = Mass moment of inertia reflected to the input shaft (including pinion assembly).

### How to order



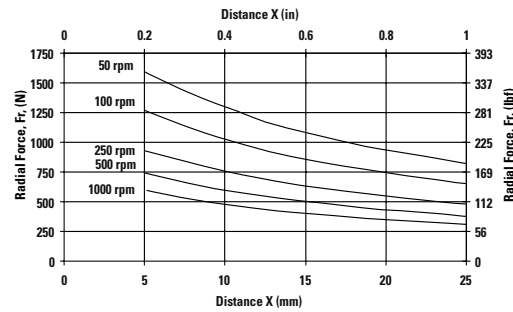
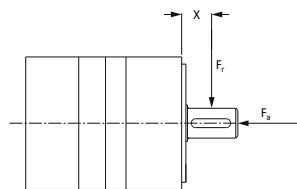
# Radial and Axial Load Ratings

## XT040



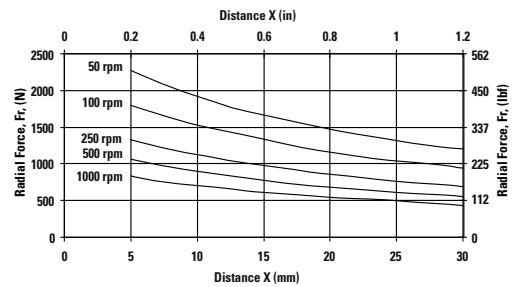
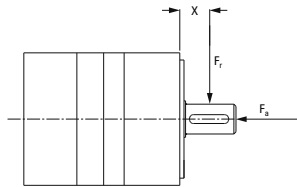
Speed rpm	Axial Load, $F_a$ N [lbf]
50	737 [166]
100	585 [132]
250	431 [97]
500	342 [77]
1000	272 [61]

## XT060



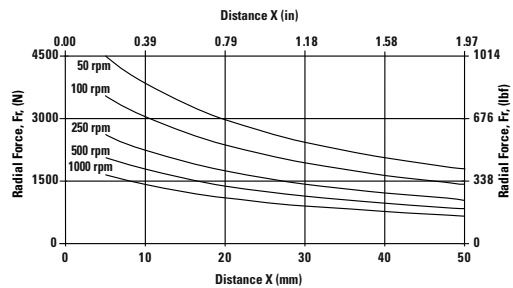
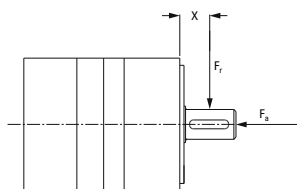
Speed rpm	Axial Load, $F_a$ N [lbf]
50	2542 [571]
100	2017 [454]
250	1486 [334]
500	1180 [265]
1000	936 [211]

## XT080



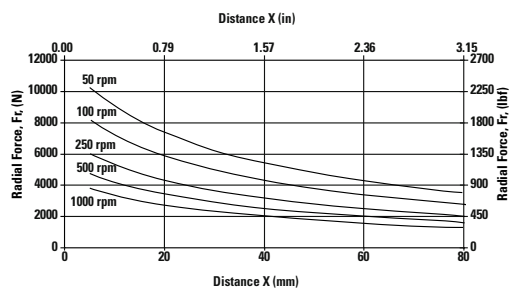
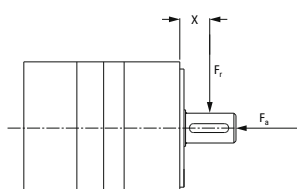
Speed rpm	Axial Load, $F_a$ N [lbf]
50	3780 [850]
100	3000 [675]
250	2211 [497]
500	1755 [394]
1000	1393 [313]

## XT120



Speed rpm	Axial Load, $F_a$ N [lbf]
50	6894 [1550]
100	5471 [1230]
250	4034 [907]
500	3203 [720]
1000	2540 [571]

## XT160



Speed rpm	Axial Load, $F_a$ N [lbf]
50	14,122 [3175]
100	11,209 [2520]
250	8260 [1857]
500	6556 [1474]
1000	5204 [1170]

These graphs display the allowable radial load at a given distance (X) from the mounting surface based on an  $L_{10}$  life of 20,000 hours for the mean output speed.

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