



LEADING THE REVOLUTION IN NUTRUNNER ATTACHMENTS













JEMMS-CASCADE IS PLEASED TO PROVIDE QUALITY ATTACHMENTS TO THE FOLLOWING POWER TOOL MANUFACTURERS OR THEIR DISTRIBUTORS:

- Aimco
 - Acradyne
 - Uryu
- American Assembly
- Atlas-Copco
- Bosch
 - Production
 - Rexroth

- CP
 - Desoutter
 - Georges Renault
 - Techmotive
- Cooper
 - Cleco
 - Rotor
- Ingersoll Rand

- Makita
- Sioux
- Stanley



When it comes to securing threaded fasteners in restricted areas, Jemms-Cascade is America's leading Nutrunner Attachment manufacturer. In operation for over 20 years, we have designed and manufactured over 1,800 models of Jemms Nutrunner Attachments.

Based in Troy, Michigan since 1988, we provide solid solutions to the automotive, aerospace, agricultural and general industries worldwide.

Contact us directly or through your area distributor for more information. We look forward to the opportunity!

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^{*}Our Attachments are manufactured to perform with pneumatic, electric and cordless power tools.

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PATENTED

- Tube-Nut Attachment
- Slip-on collar

- Tie-rod adjustment tool
- Weatherstrip Attachment

- Whipless Extension
- Safety Sleeve

ASSEMBLY LINE PROVED TO PROVIDE

- Highest cycle capability
- · Most consistent torque repeatability
- Highest torque load capability
- Lowest cycle cost
- Variety of standard and custom designs
- Standard adapters provide a secure fit to any power tool
- 1 year / 250,000 cycle limited warranty
- Designed to fit any pneumatic, electric and cordless fastening tools
- · Specialized sizes to fit most any restricted space
- World class quality
- Hex sizes to 5" / torque up to 4,000' lb.

INTERNATIONALLY DISTRIBUTED BY

- Major power tool manufacturers or their distributors
- Fastening system experts
- Jemms-Cascade, Inc.

EXCLUSIVE

We manufacture the only tooling of this type independently bench tested to 250,000+ cycles by power tool manufacturers and L.T.U. (Ford Certification).

PROBLEMS WITH ORDINARY ATTACHMENTS (CROWSFOOT, FLAT RATCHET)

- 1. Inconsistent torque
- 2. High maintenance
- 3. Lead time

- 4. Availability for your specific application
- 5. Product support

Jemms has solved these problems by manufacturing precision units that provide:

- 1. 250,000 cycle capability*
- 2. Most consistent torque repeatability
- 3. Highest torque capabilities (up to 4,000 ft. lb.)
- 4. Lowest maintenance
- 5. Lowest overall cycle cost

- 6. Responsive turn around time
- **7.** Mount to the power tool of your choice without welding or the need of special adapters
- 8. Compact standardized sizes for most applications, as well as the ability to design around special applications
- 9. Plant support with technical information and replacement parts service

*See warranty for details

CUSTOMER SATISFACTION IS OUR PRIMARY OBJECTIVE, WHICH WE OBTAIN THROUGH PERFORMANCE.

SAMPLE APPLICATIONS

TUBE-NUT ATTACHMENTS (PATENTED)

Brakelines, power steering, hydraulic or cable connections, garden hose connections, wheel spokes and tie rod adjustment.

*Available for Hold & Drive/Tube-to-Tube applications

OFFSET ATTACHMENTS

Distributor clamp, axle backing plate and any restricted flange or casting applications.

HOLD & DRIVE

Common applications include sway bar, ball joint, shock absorbers and chassis assembly.

AEROSPACE

These applications require trim designed Attachments that are precise and robust. Used to install HI-LOK, HI-LITE and custom fasteners when building up various wing assemblies.

INLINE TUBE-NUTS AND STANDARD ATTACHMENTS

Low profile Attachments and Tube-Nuts used in deep or confined areas or with right angle head interference. Used for door on/off, seat secure and various straight on applications.

20° TUBE-NUTS AND STANDARD ATTACHMENTS

Door on/off, hood secure and out of reach fasteners. (ex. Brakelines within the wheel well)

MULTI-SPINDLE

Wheel lugs, u-bolts, or multiple fastener applications for run down.

WEATHERSTRIP ATTACHMENTS (PATENTED)

Crimps various automotive weather seals.

SAFETY SLEEVES (PATENTED)

Protects operators from pinch points on any right angle tools.

WHIPLESS EXTENSIONS (PATENTED)

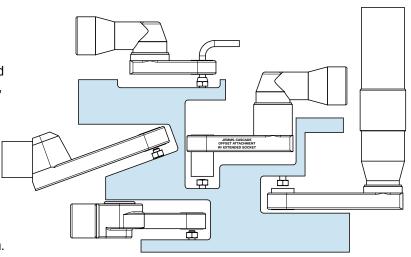
Reduces vibrations on any application using socket extensions.

FIXTURED ATTACHMENTS AND SLIDING SPINDLES

Necessary to fit tight bolt patterns and allow compliance on fixtured tools.

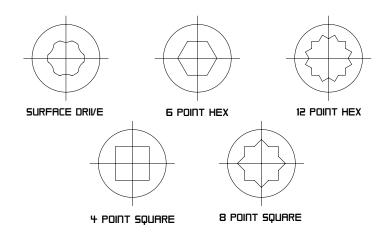
CUSTOM ANGLE HEADS

Provide specialized ratios and expand the capabilities of standard electric and pneumatic motors.



SOCKET OPTIONS

- -BIT HOLDER
- -SOCKET EXTENSIONS
- -MAGNETIC SOCKETS
- -RETAINING GROOVES, TO HOLD SPECIAL ADAPTERS
- -FAST LEAD



OFFSET ATTACHMENTS



Jemms configurations consistently provide high torque outputs with minimal footprints. With over two decades of experience and performance our designs accommodate the most unique applications.

- Components are manufactured with high strength materials and precision machining.
- We use precision bearings to maximize efficiency and maintain gear alignment.
- Fits to power tool of your choice (pneumatic, cordless or electric).
- Motor adapters are included with each Attachment, allowing for mounting on a 360° axis. Various mounting adapters are available, see page 29.
- Grease fittings are included on all our designs allowing for easy lubrication.
- Custom designs are available that multiply torque and change the direction of rotation.





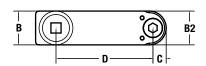


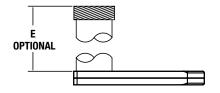




NUTRUNNER ATTACHMENTS







LIGHT DUTY TORQUES

							ΓΟ 140	IN. L	B.							
Part #	Max T Out	•		Size x**	,	4	А	2	E	3	(;	I)	Sq. Dr. Up To	Efficiency
	IN./LB.	N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	OP 10	
34822-32165	60	7	1/4	6	3/8	9.5	0.350	8.9	1.000	25.4	0.305	7.7	1.125	28.6	1/4	75%
54822-32165	60	7	1/4	6	3/8	9.5	0.350	8.9	1.000	25.4	0.305	7.7	2.456	62.4	1/4	65%
34828-32165	60	7	3/8	10	3/8	9.5	0.350	8.9	1.000	25.4	0.366	9.3	1.250	31.8	3/8	75%
54828-32165	60	7	3/8	10	3/8	9.5	0.350	8.9	1.000	25.4	0.366	9.3	2.582	65.6	3/8	65%
324/327125	90	10	7/16	11	5/16	7.9	0.313	7.9	1.000	25.4	0.443	11.3	1.416	36.0	3/8	75%
524/327125	90	10	7/16	11	5/16	7.9	0.313	7.9	1.000	25.4	0.443	11.3	2.832	71.9	3/8	65%
324/329125	90	10	1/2	13	5/16	7.9	0.313	7.9	1.090	27.7	0.485	12.3	1.584	40.2	3/8	75%
524/329125	90	10	1/2	13	5/16	7.9	0.313	7.9	1.090	27.7	0.485	12.3	3.168	80.5	3/8	65%
324/327175	140	16	7/16	11	13/32	10.3	0.370	9.4	1.000	25.4	0.443	11.3	1.416	36.0	3/8	75%
524/327175	140	16	7/16	11	13/32	10.3	0.370	9.4	1.000	25.4	0.443	11.3	2.832	71.9	3/8	65%
324/329125	140	16	1/2	13	13/32	10.3	0.370	9.4	1.090	27.7	0.485	12.3	1.584	40.2	3/8	75%
524/329175	140	16	1/2	13	13/32	10.3	0.370	9.4	1.090	27.7	0.485	12.3	3.168	80.5	3/8	65%
‡																

STANDARD DUTY TORQUES -

					TO 2	0 FT. I	LB./27	7 N.M.								
Part #	Max T Out	put	Hex Ma	X**				2)	Sq. Dr. Up To	Efficiency
	FT./LB.	N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	•	
3B24/326/7250	12	16	7/16	11	1/2	12.7	0.400	10.2	1.125	28.6	0.425	10.8	1.416	36.0	3/8	60%
5B24/326/7250	12	16	7/16	11	1/2	12.7	0.400	10.2	1.125	28.6	0.425	10.8	2.832	71.9	3/8	70%
3B24/325-22250	13	17	7/16	11	1/2	12.7	0.400	10.2	1.125	28.6	0.409	10.4	1.542	39.2	3/8	80%
5B24/325-22250	13	17	7/16	11	1/2	12.7	0.400	10.2	1.125	28.6	0.409	10.4	3.375	85.7	3/8	70%
5B05250	20	27	7/16	11	1/2	12.7	0.430	10.9	1.000	25.4	0.475	12.1	3.000	76.2	3/8	70%
5B06250	20	27	1/2	13	1/2	12.7	0.430	10.9	1.250	31.8	0.503	12.8	3.203	81.4	3/8	70%
5B07250	20	27	17/32	13	1/2	12.7	0.430	10.9	1.250	31.8	0.525	13.3	3.400	86.4	3/8	70%
5B08250	20	27	9/16	14	1/2	12.7	0.430	10.9	1.250	31.8	0.550	14.0	3.609	91.7	3/8	70%
5B00250	20	27	5/8	15	1/2	12.7	0.430	10.9	1.250	31.8	0.600	15.2	4.000	101.6	1/2	70%
3B00250	21	28	5/8	15	1/2	12.7	0.430	10.9	1.250	31.8	0.600	15.2	2.000	50.8	1/2	80%
3B05250	21	28	7/16	11	1/2	12.7	0.430	10.9	1.000	25.4	0.475	12.1	1.500	38.1	3/8	80%
3B06250	21	28	1/2	13	1/2	12.7	0.430	10.9	1.250	31.8	0.503	12.8	1.609	40.9	3/8	80%
3B07250	21	28	17/32	13	1/2	12.7	0.430	10.9	1.250	31.8	0.525	13.3	1.703	43.3	3/8	80%
3B08250	21	28	9/16	14	1/2	12.7	0.430	10.9	1.250	31.8	0.550	14.0	1.796	45.6	3/8	80%
3B24/3222/23312	22	30	9/16	14	9/16	14.3	0.510	13.0	1.375	34.9	0.575	14.6	1.916	48.7	3/8	80%
5B24/3222/23312	22	30	9/16	14	9/16	14.3	0.510	13.0	1.375	34.9	0.575	14.6	3.832	97.3	3/8	70%
‡																

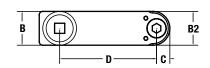
^{*} Numerous variations are available. If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.

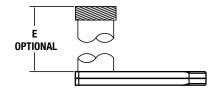
In-house design staff creates custom tools for special applications

^{**} Hex socket gear can be extended or modified to accept adapters, bits, chucks or magnets.

NUTRUNNER







EXTRA DUTY TORQUES

					T0	39 F	. LB./	52 N.N	Л.							
Part #	Max T Out		Hex Ma		,	4	А	2	E	3	(;	ı)	Sq. Dr.	Efficiency
	FT./LB.	N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	Up To	
7B88312	21	28	9/16	14	9/16	14.3	0.540	13.7	1-1/4	38.1	0.550	14.0	5.000	112.8	1/2	60%
3B85250	23	31	1/2	13	1/2	12.7	0.450	11.4	1-1/4	31.8	0.525	13.3	1.656	42.3	3/8	80%
5B85250	23	31	1/2	13	1/2	12.7	0.450	11.4	1-1/4	31.8	0.525	13.3	3.328	84.6	3/8	70%
3B86250	23	31	9/16	14	1/2	12.7	0.450	11.4	1-1/4	31.8	0.550	14.0	1.765	45.1	3/8	80%
5B86250	23	31	9/16	14	1/2	12.7	0.450	11.4	1-1/4	31.8	0.550	14.0	3.546	80.1	3/8	70%
5B88312	34	46	9/16	15	9/16	14.3	0.540	13.7	1-1/4	38.1	0.613	15.6	4.000	101.6	1/2	70%
3B88312	36	48	9/16	15	9/16	14.3	0.540	13.7	1-1/4	31.8	0.613	15.6	2.000	50.8	1/2	80%
5B86312	36	48	9/16	14	9/16	14.3	0.540	13.7	1-1/4	31.8	0.550	14.0	3.546	80.1	3/8	70%
5B4/83/4312	37	50	9/16	15	1/2	12.7	0.540	13.7	1-1/2	38.1	0.625	15.9	4.000	101.6	1/2	70%
5B88375	39	52	9/16	15	5/8	15.9	0.625	15.9	1-1/4	38.1	0.613	15.6	4.000	101.6	1/2	70%
3B4/83/4312	41	55	9/16	15	9/16	14.3	0.540	13.7	1-1/2	38.1	0.625	15.9	2.000	50.8	1/2	80%
‡																

HEAVY DUTY TORQUES

					TO 1	100 F1	T. LB./	135 N	.M.							
Part #	Max T Out	•	Hex Ma:		ı	1	А	2	E	3	(;	ı	D	Sq. Dr. Up To	Efficiency
	FT./LB.	N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	op io	
5BM0312	60	81	7/8	23	9/16	14.3	9/16	14.3	1-3/4	44.5	0.830	21.1	5.534	140.0	3/4	70%
5BM8312	60	81	13/16	21	9/16	14.3	9/16	14.3	1-3/4	44.5	0.770	19.6	5.187	131.7	5/8	70%
3BM4312	65	94	9/16	15	9/16	14.3	9/16	14.3	1-1/2	38.1	0.645	16.4	2.046	51.8	1/2	80%
5BM6312	65	94	21/32	17	9/16	14.3	9/16	14.3	1-1/2	38.1	0.675	17.1	4.405	112.0	5/8	70%
3BM8312	65	94	13/16	21	9/16	14.3	9/16	14.3	1-3/4	44.5	0.770	19.6	2.593	65.8	5/8	80%
3BM6312	70	94	21/32	17	9/16	14.3	9/16	14.3	1-1/2	38.1	0.675	17.1	2.200	56.0	1/2	80%
5BM4312	75	101	9/16	15	9/16	14.3	9/16	14.3	1-1/2	38.1	0.645	16.4	4.078	103.6	1/2	70%
3BM0375	80	108	7/8	23	5/8	15.9	5/8	15.9	1-3/4	44.5	0.830	21.1	2.759	70.0	3/4	80%
5BM6375	80	108	21/32	17	5/8	15.9	5/8	15.9	1-1/2	38.1	0.675	17.1	4.405	112.0	5/8	70%
3BM4375	85	115	9/16	15	5/8	15.9	5/8	15.9	1-1/2	38.1	0.645	16.4	2.046	51.8	1/2	80%
5BM4375	85	115	9/16	15	5/8	15.9	5/8	15.9	1-1/2	38.1	0.645	16.4	4.078	103.6	1/2	70%
3BM6375	85	115	21/32	17	5/8	15.9	5/8	15.9	1-1/2	38.1	0.675	17.1	2.200	56.0	1/2	80%
3BM8375	85	115	13/16	21	5/8	15.9	5/8	15.9	1-3/4	44.5	0.770	19.6	2.593	65.8	5/8	80%
5BM8375	85	115	13/16	21	5/8	15.9	5/8	15.9	1-3/4	44.5	0.770	19.6	5.187	131.7	5/8	70%
5BM0375	95	128	7/8	23	5/8	15.9	5/8	15.9	1-3/4	44.5	0.830	21.1	5.534	140.0	3/4	70%
‡																

[†] Numerous variations are available. If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.

In-house design staff creates custom tools for special applications

^{**} Hex socket gear can be extended or modified to accept adapters, bits, chucks or magnets.

NUTRUNNER ATTACHMENTS

SERIES 5 X-TRA HEAVY DUTY TORQUES -

					TO 1	35-36	60 FT. I	B./18	3-488	N.M.						
Part #	Max T Out		Hex Ma		,		A	_		В	(-	D	Sq. Dr. Up To	Efficiency
	FT./LB.	N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	OP 10	
3B2/435375	45	140	1-3/4	44	0.688	17.5	0.650	16.5	3	76.0	1.340	34.0	5.900	150.0	1	80%
3B2/447375	95	136	3	76	0.688	17.5	0.650	16.5	4-1/2	114.0	2.125	54.0	7.900	201.0	1	80%
3B2/45375	95	136	3/4	19	0.688	17.5	0.650	16.5	1-3/4	44.5	0.780	20.0	2.600	66.0	5/8	80%
3B2/47375	100	136	7/8	22	0.688	17.5	0.650	16.5	1-3/4	44.5	0.870	22.0	2.875	74.0	3/4	80%
3B2/426500	140	186	1-1/2	38	0.812	20.6	0.812	20.6	2-1/2	63.5	1.250	31.6	4.400	112.0	1	80%
3B2/44500	140	186	23/32	18	0.812	20.6	0.812	20.6	1-1/2	38.0	0.740	18.8	2.400	61.0	5/8	80%
3B2/45500	140	186	3/4	19	0.812	20.6	0.812	20.6	1-3/4	44.5	0.780	20.0	2.600	66.0	5/8	80%
3B2/46500	140	186	13/16	20	0.812	20.6	0.812	20.6	1-3/4	44.5	0.830	21.0	2.750	70.0	5/8	80%
5B2/46500	140	186	13/16	20	0.812	20.6	0.812	20.6	1-3/4	44.5	0.830	21.0	5.500	139.7	5/8	70%
3B2/48500	140	186	1	25	0.812	20.6	0.812	20.6	2	50.8	0.925	23.5	3.125	78.0	1	80%
5B2/48625	140	186	1	25	0.812	20.6	0.950	24.1	2	50.8	0.925	23.5	6.250	158.8	1	70%
3B2/40625	250	300	7/8	22	1.000	25.4	0.950	24.1	2	50.8	0.990	25.0	3.425	87.0	1	80%
5B2/40625	250	300	7/8	22	1.000	25.4	0.950	24.1	2	50.8	0.990	25.0	6.850	174.0	1	70%
3B2/426625	250	300	1-1/2	38	1.000	25.4	0.950	24.1	2-1/2	63.5	1.250	31.6	4.400	112.0	1	80%
3B2/45625	250	300	3/4	19	1.000	25.4	0.950	24.1	1-3/4	44.5	0.780	20.0	2.600	66.0	5/8	80%
3B2/48625	250	300	1	25	1.000	25.4	0.950	24.1	2	50.8	0.925	23.5	3.125	78.0	1	80%
3B2/421625	275	300	1-3/16	30	1.000	25.4	0.950	24.1	2-1/2	63.5	1.050	26.7	3.590	91.0	1	80%
3B2/447750	300	360	3	76	1.125	28.6	1.070	27.2	4-1/2	114.0	2.125	54.0	7.900	201.0	1	80%
‡																

SUPER DUTY ATTACHMENTS

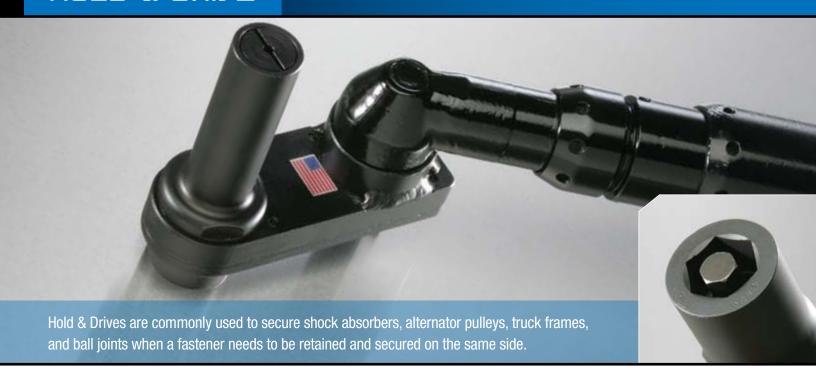
					TO 3	70-1,	770 F	T. LB	./500	-2,40	00 N.N	Л.						
Part #		orque put	Hex Si Max		,	١	A	2	ı	В	В	2	())	Sq. Dr. Up To	Efficiency
	FT./LB	. N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	ор ю	
3B8/102-61125	391	530	3/4	19	1.750	44.5	1.625	41.3	2.500	63.5	2.000	50.8	0.915	23.2	3.500	88.9	5/8	80%
3B8/1071250	500	678	1-1/4	31	1.625	41.3	1.500	38.1	2.750	69.9	2.578	65.5	1.250	31.8	4.250	108.0	1	80%
3B8/1081250	531	720	1-7/16	36	1.750	44.5	1.625	41.3	3.000	76.2	2.800	71.1	1.365	34.7	4.500	114.3	1	80%
5B8/1051000	590	800	15/16	24	1.500	38.1	1.375	34.9	2.500	63.5	2.300	58.4	1.123	28.5	7.500	190.5	1	70%
S3B8/104-01125	642	870	15/16	24	1.750	44.5	1.626	41.3	3.375	85.7	2.150	54.6	1.065	27.1	4.250	108.0	3/4	80%
S3B8/1091000	664	900	15/16	24	1.375	34.9	1.375	34.9	3.000	76.2	3.000	76.2	1.415	35.9	5.000	127.0	1	80%
5B8/10221500	767	1040	1-11/16	42	2.000	50.8	2.000	50.8	3.375	85.7	3.250	82.6	1.540	39.1	11.000	279.4	1	70%
5B8/1061000	774	1050	1	25	1.375	34.9	1.375	34.9	2.750	69.9	2.500	63.5	1.185	30.1	8.000	203.2	1	70%
S3BH8/1021/221125	811	1100	1-3/8	34	1.500	38.1	1.500	38.1	3.500	88.9	3.500	88.9	1.550	39.4	5.500	139.7	1	80%
S5B8/1061125	848	1150	1-1/4	31	1.750	44.5	1.400	35.6	2.750	69.9	2.530	64.3	1.215	30.9	8.000	203.2	1	70%
S5B8/1041250	922	1250	15/16	24	1.625	41.3	1.625	41.3	2.500	63.5	2.300	58.4	1.115	28.3	7.000	177.8	1	70%
S5B8/1051250	922	1250	1	25	1.750	44.5	1.750	44.5	2.500	63.5	2.300	58.4	1.123	28.5	7.500	190.5	1	70%
S5B8/10241250	959	1300	1-7/8	47	1.750	44.5	1.750	44.5	3.750	95.3	3.370	85.6	1.685	42.8	12.000	304.8	1	70%
S7B6/861250	1180	1600	1-1/4	31	1.625	41.3	2.000	50.8	4.000	101.6	3.400	86.4	1.600	40.6	16.000	406.4	1-1/2	60%
S5B6/861250	1187	1610	1-9/16	39	1.625	41.3	2.000	50.8	3.500	88.9	3.400	86.4	1.600	40.6	10.668	271.0	1	70%
S3B8/1092875	1770	2400	1-1/2	38	4.000	101.6	3.400	86.4	4.700	119.4	3.126	79.4	1.563	39.7	4.750	120.7	1-1/2	80%
S5B8/1092875	1770	2400	1-1/2	38	4.000	101.6	3.400	86.4	4.700	119.4	3.126	79.4	1.566	39.8	9.504	241.4	1-1/2	70%
‡			•															

[‡] Numerous variations are available. If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.

In-house design staff creates custom tools for special applications

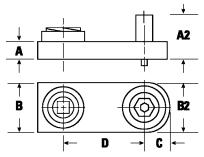
^{**} Hex socket gear can be extended or modified to accept adapters, bits, chucks or magnets.

HOLD & DRIVE



Jemms offers several designs to work with standard pneumatic and electric nutrunners. Our low profile alternative provides maximum tool capability at 1/3 the height of standard Hold & Drives with the safety of an enclosed hold shaft.

- Parts manufactured with high strength materials and precise machining.
- We use precision bearings to maximize efficiency and maintain torque repeatability.
- Enclosed moving components increase stability and eliminate pinch points.
- Angle head adapters are included with each Attachment. They allow for mounting on a 360° axis.

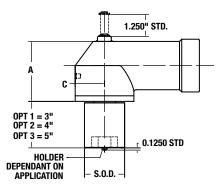


OFFSET HOLD & DRIVE -

Part #	Tord Capa	•	Max S		Travel	А		A	2	E	3	B	2	C				Ratio
	FT./LB.	N.M.	IN	MM		IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	
3B45/6312	41	55	11/16	17	1"	0.625	15.9	2.825	71.8	1.500	38.1	1.500	38.1	0.750	19.1	2.286	58.1	1:1
3BM8625	81	110	3/4	19	1"	1.000	25.4	3.760	95.5	1.750	44.5	1.750	44.5	0.775	19.7	2.592	65.8	1:1
3B2/48625	166	225	15/16	24	2"	1.000	25.4	4.110	104.4	2.000	50.8	2.000	50.8	0.940	23.9	3.084	78.3	1:1
3B2/46-211000	221	300	1 1/8	28	2"	1.437	36.5	4.140	105.2	2.250	57.2	2.250	57.2	1.047	26.6	3.374	85.7	1.312:1

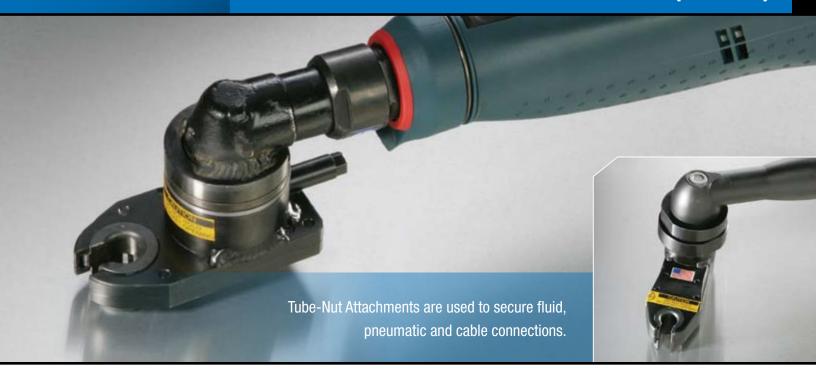
HOLD & DRIVE ANGLE HEADS

Model	Max Torq	ue Output	A=H	eight	(;	Amelo	Detie
Model	FT./LB.	N.M.	IN	MM	IN	MM	Angle	Ratio
RA-1005	66	90	1.894	48	0.750	19	90	1.75:1
RA-1006	81	110	2.841	72	1.625	41	90	2.09:1
RA-1007	66	90	1.932	49	1.031	26	90	2.375:1
RA-1009	406	550	3.396	86	1.663	42	90	2.2:1



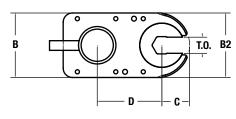
- **Numerous variations are available.** If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.
- Custom travel designs are available upon request. Please specify socket size when ordering. Flush socket designs are also available.

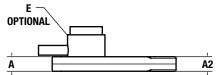
TUBE-NUT ATTACHMENTS (PATENTED)



Developing these tools requires comprehensive knowledge of gear design and their functionality. Our expertise has provided the largest variety in this field.

- Precision layouts provide for consistent torque and unrivaled durability.
- Our patented designs include a unique positive stop, that allows the socket to return to the open position.
- Robust and low profile designs to suit your application.
- Sockets available from 5-90 MM A/F. (See socket options) Capable of up to 200 (FT. LB.).
- Built in lubrication points.
- Various mounting adapters are available, see page 29.





TUBE-NUT ATTACHMENTS

	Torque C	apability	Max Soc	ket Size	A	2	E	3	(;)	В	2	T.	0.
Base Model	FT./LB.	N.M.	IN	ММ	IN	MM	IN	MM	IN `	MM	IN	ММ	IN	MM	IN	MM
TN2	18	25	5/8	17	0.500	13	1.750	44	0.650	17	1.580	40	1.500	38	0.350	9
TN2X2					(See TN2)						3.797	96	1.500	38	0.350	9
TN79	18	25	1/2	13	0.563	14	1.750	44	0.543	14	2.156	55	1.375	35	0.375	10
TN71	22	30	3/4	19	0.563	14	2.000	51	0.743	19	1.561	40	1.640	42	0.500	13
TN71X2				(See TN71))					3.989	101	1.640	42	0.500	13
TN72X2	22	30	9/16	14	0.625	16	1.500	38	0.549	14	2.810	71	1.160	29	0.330	8
TN3	26	35	3/4	18	0.500	13	2.000	51	0.750	19	1.800	46	1.670	42	0.410	10
TN3X2					(See TN3)						4.300	109	1.670	42	0.410	10
TN77	29	40	7/8	23	0.563	14	2.400	61	0.868	22	1.649	42	2.300	58	0.562	14
TN77X2				(See TN77)					4.649	118	2.300	58	0.562	14
TN9	29	40	3/4	20	0.625	16	1.750	44	0.740	19	1.687	43	1.730	44	0.400	10
TN9X2					(See TN9)						4.254	108	1.730	44	0.400	10
TN4	41	55	1-3/16	30	0.563	14	2.500	64	1.025	26	2.505	64	2.500	64	0.625	16
TN4X2					(See TN4)						6.219	158	2.500	64	0.625	16
TN19	92	125	1-1/2	38	0.750	19	4.000	102	1.325	34	2.615	66	3.375	86	1.100	28

Numerous variations are available. If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.

^{**} Hex socket gear can be extended or modified to accept adapters, bits, chucks or magnets.

INLINE/20° TUBE-NUT & STANDARD ATTACHMENTS



When accessing fasteners in deep and confined areas, we recommend using an Inline Attachment.

Angled Attachments are used for ergonomically accessing restricted fasteners. Common automotive applications are accessing brakelines in the wheel wells and door installations.

Both designs fit directly to the power tool without the angle head.

Our use of spiral bevel gears provides smooth and quiet operation with the highest load carrying capacity with quiet operation. This concept is now becoming an industry standard. When combined with our extensive Tube-Nut and Standard Attachment designs it supplies an unrivaled array of options.

- Precision layouts provide for consistent torque and proven durability.
- Adapters are provided to easily adjust the output gear location to the tool trigger.
- Designs are available that multiply torque and change the direction of rotation that allows use off the top or bottom of the Attachment.
- The use of precision bearings maximizes efficiency and maintains gear alignment.
- Components are manufactured using lightweight, high strength materials and precision machining.
- Grease fittings are located on all our designs allowing for easy lubrication.
- Casings are contoured to minimize tool weight and prevent paint mutilation.



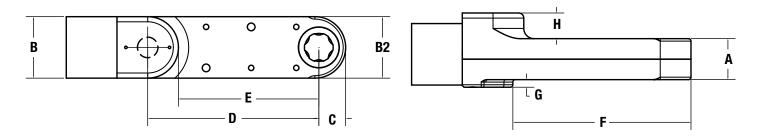






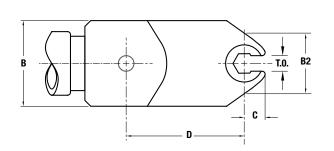


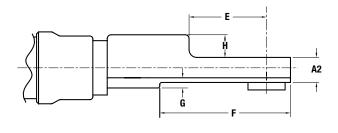
INLINE/20° TUBE-NUT & STANDARD ATTACHMENTS



INLINE STANDARD ATTACHMENTS

Part #	Max T Out	•	Hex S		А		В		B	2	C		ı	D		E	F	:	0	i	Н	
i di t #	FT./LB.	N.M.		ММ	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	ММ
6B24/327/833/34312-INL	13	18	0.472	12	0.551	14.0	1.870	47.5	0.984	25.0	0.470	11.9	4.417	112.2	2.429	61.7	4.355	110.6	0.282	7.2	0.682	17.3
4B2/40-26-23750-INL	22	30	0.512	13	0.629	16.0	1.870	47.5	1.110	28.2	0.555	14.1	3.499	88.9	2.499	63.5	3.554	90.3	0.465	11.8	0.638	16.2
4B84/624/2524/22312-INL	22	30	0.551	14	0.629	16.0	1.870	47.5	1.126	28.6	0.563	14.3	3.222	81.8	2.287	58.1	3.284	83.4	0.259	6.6	0.588	14.9
4B016/1724/25375-INL	27	36	0.827	21	0.688	17.5	1.870	47.5	1.526	38.8	0.700	17.8	3.600	91.4	2.760	70.1	3.798	96.5	0.221	5.6	0.588	14.9
6B85/621/229/3312-INL	26	35	0.512	13	0.567	14.4	1.870	47.5	1.126	28.6	0.563	14.3	5.443	138.3	4.492	114.1	5.474	139.0	0.289	7.3	0.620	15.7
5B02/321/22625-INL	52	70	0.630	16	1.000	25.4	1.500	38.1	1.500	38.1	0.655	16.6	4.175	106.0	3.425	87.0	4.342	110.3	0.185	4.7	0.620	15.7
4B2/46438-INL	75	102	0.748	19	0.688	17.5	2.720	69.1	1.800	45.7	0.900	22.9	4.458	113.2	3.075	78.1	4.375	111.2	0.406	10.3	1.079	27.4
4B2/40-26-23750-INL	280	380	1.125	29	1.127	28.6	3.276	83.2	2.250	57.2	1.116	28.3	5.999	152.4	3.401	86.4	5.630	143.0	0.460	11.7	1.496	38.0
7B8/107-4625-INL	332	450	1.125	29	1.437	36.5	3.126	79.4	2.500	63.5	1.250	31.8	12.688	322.3	9.501	241.3	9.314	236.6	0.518	13.2	1.783	45.3
‡																						

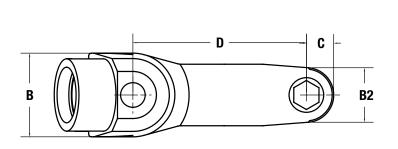


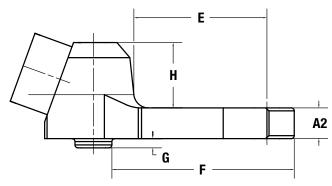


INLINE TUBE-NUT ATTACHMENTS

Part #	Max T Out		Hex S Max	-	μ	l	В		B	2	C	;	[)	E		F	:	G		Н		T.0).
	FT./LB.	N.M.	IN	ММ	IN	MM	IN	ММ	IN	MM	IN	MM	IN	MM										
TN7-INL	21	30	0.512	13	0.563	14.3	2.000	50.8	1.120	28.4	0.560	14.2	3.042	77.3	2.042	51.9	3.102	78.8	0.585	14.9	0.620	15.7	0.310	8
TNR2-INL	26	35	0.669	17	0.570	14.5	1.750	44.5	1.380	35.1	0.690	17.5	2.464	62.6	1.764	44.8	2.774	70.5	0.420	10.7	0.600	15.2	0.400	10
TN77-INL	26	35	0.945	24	0.431	10.9	2.400	61.0	2.000	50.8	0.897	22.8	2.805	71.2	1.565	39.8	3.078	78.2	0.581	14.8	0.745	18.9	0.442	11
TN9-INL	29	40	0.827	21	0.676	17.2	1.750	44.5	1.750	44.5	0.740	18.8	2.679	68.0	1.439	36.6	2.981	75.7	0.270	6.9	0.709	18.0	0.400	10
TN65-INL	41	55	0.866	22	0.601	15.3	2.718	69.0	1.962	49.8	0.843	21.4	3.503	89.0	1.982	50.4	3.314	84.2	0.643	16.3	0.736	18.7	0.708	18
TN14-INL	44	60	0.866	22	0.601	15.3	3.000	76.2	2.388	60.7	1.133	28.8	3.658	92.9	2.158	54.8	4.041	102.6	0.643	16.3	0.745	18.9	0.708	18
‡																								

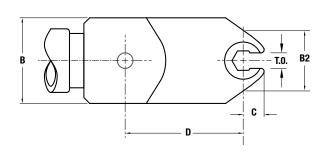
- * Numerous variations are available. If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.
- ** Hex socket gear can be extended or modified to accept adapters, bits, chucks or magnets.

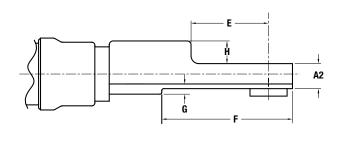




20° STANDARD ATTACHMENTS

Part #		Forque Sput	Hex S Max		A	2	В		В	2	C		D)	E		ı	F	G		Н	
I dit#	FT./LB	•	IN	ММ	IN	MM	IN	ММ	IN	ММ	IN	MM	IN	MM								
5B85/6312-20°	22	35	0.512	13	0.552	14.0	1.700	43.2	1.111	28.2	0.555	14.1	3.525	89.5	2.934	74.5	3.705	94.1	0.188	4.8	1.329	33.8
4B24/329/0-0/21375-20°	22	37	0.551	14	0.661	16.8	2.000	50.8	1.068	27.1	0.534	13.6	3.771	95.8	3.238	82.2	3.272	83.1	0.802	20.4	0.585	14.9
6B03/40/217/8375-20°	22	39	0.551	14	0.688	17.5	1.750	44.5	1.106	28.1	0.555	14.1	5.000	127.0	4.125	104.8	5.175	131.4	0.197	5.0	1.328	33.7
5B022/2323/2428/296/7312-20°	24	35	0.748	19	0.625	15.9	1.750	44.5	1.418	36.0	0.680	17.3	4.800	121.9	3.402	86.4	5.040	128.0	0.188	4.8	1.226	31.1
4B024/25-25/26-6/7375-20°	27	39	0.827	21	0.688	17.5	1.750	44.5	1.526	38.8	0.730	18.5	3.600	91.4	2.454	62.3	4.330	110.0	0.125	3.2	1.226	31.1
4B4/81/29/0375-20°	37	50	0.945	24	0.750	19.1	1.750	44.5	1.750	44.5	0.835	21.2	4.000	101.6	2.828	71.8	4.460	113.3	0.132	3.4	1.350	34.3
4B24/320-21375-20°	31	40	0.500	13	0.661	16.8	2.000	50.8	1.068	27.1	0.534	13.6	3.771	95.8	2.634	66.9	3.272	83.1	0.759	19.3	0.565	14.3
‡																						





20° TUBE-NUT ATTACHMENTS

Part #	Max T		Hex S Max		A	2	E	3	В	2	([)	ı		ı		(à	ŀ	ł	T.	0.
	FT./LB.	N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
TN79-20°	22	30	0.512	13	0.626	15.9	1.750	44.50	1.186	30.10	0.593	15.10	2.200	54.80	1.351	34.30	2.054	52.20	0.741	18.80	1.342	34.10	0.375	10.00
‡																								

- **† Numerous variations are available.** If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.
- ** Hex socket gear can be extended or modified to accept adapters, bits, chucks or magnets.

MULTI-SPINDLE NUT STARTER



Our designs can be built to suit various configurations using gear-driven technology. Jemms gear-driven concept provides consistent rotation while maintaining a low output torque eliminating cross thread damage.

- Jemms manufactures the Multi-Spindle using lightweight, high strength materials, providing extended tool life.
- Powertool adapters are created and provided to suit pneumatic and cordless applications.
- · Specialty designs include sliding spindles and can be used for fastener removal.

MULTI-SPINDLE

Part #	Bolt (Circle	Spindles	Weight Ibs.
rait#	IN	MM	Spiriules	weight ibs.
3765	4.500	114.3	5	1.4
3506	3.938	100.0	5	1.3
4600	4.331	110.0	5	1.3
4676	4.724	120.0	5	1.8
4875	4.250	108.0	4	1.3
4178	4.528	115.0	6	1.7
4049	6.000	152.4	8	2.5

Numerous variations are available. If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.



WEATHERSTRIP ATTACHMENT (PATENTED)



Our patented creation of the Weatherstrip tool incorporates a history of design and manufacturing automotive fastening Attachments.

- Rollers may be changed easily, externally.
- Gear box is manufactured with lightweight, high strength materials.
- Gear rollers are made of high strength alloys and supported with bearings for smooth running and longer life.
- Assembly and mounting information is provided with all Jemms-Cascade Attachments.

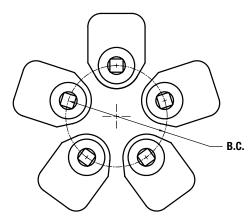


FIXTURED ATTACHMENTS/SLIDING SPINDLES



We have a variety of standard Offsets and spindles with minimal side to center distances. These tools are built to provide high torque output consistently in harsh environments.

- Sliding Spindles are available with up to 2" of travel with 3/8, 1/2, 3/4, 1 and 1-1/2" square drives.
- Components are manufactured with high strength materials and precision machining.
- Mounting plates are provided, and can adapt to inline and right angle tools.
- Our proven designs provide both accuracy and durability.



FIXTURED OFFSETS

Model #	Max T Out	-	A	4	A	2	E	3	В	2	I	D	Ratio	Stroke	Sq. Dr.
	FT./LB.	N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM			up to
2B67/81250	80	108	2.000	50.8	2.783	70.7	2.000	50.8	1.482	37.6	1.125	28.6	0.741	1"	1/2
3B2/46-8625	184	250	0.937	23.8	6.802	172.8	2.000	50.8	2.188	55.6	3.001	76.2	1.000	1"	3/4
3B2/49-221250	258	350	1.125	28.6	8.166	207.4	2.312	58.7	2.312	58.7	3.375	85.7	1.156	2"	3/4

Numerous variations are available. If required unit is not listed, contact our plant with your application requirements.

CUSTOM ANGLE HEADS

Torque Capabilities to 550 N.M.

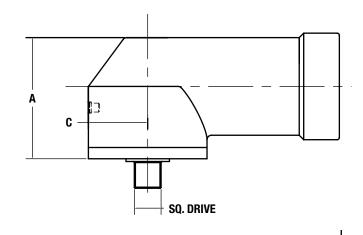
Jemms custom angle heads are designed to fit all major power tools.



Where the size, power or availability of the motor is a factor, our custom angle heads should be considered. They are built using our established spiral bevel gear designs.

Benefits include:

- Specialty gear ratios compliment your standard product by achieving specific torques and RPM ranges.
- The use of our spiral bevel gears provide excellent smoothness and load carrying capability.
- · Adapters are provided to fit directly to your tool body.
- · Precision bearings maximize efficiency and maintain gear alignment.
- Components are manufactured with high strength materials and precision machining.
- Multiple designs are available, including Flush Socket Heads.



ANGLE HEADS

Model #	Max Torque Output		A = Height		(C	Angle	Ratio	Standard Sq.
Wodel #	FT./LB.	N.M.	IN	ММ	IN	MM	Allyle	nauu	Stanuaru Sy.
RA-1003	11	15	1.680	43	0.670	17	90	1.58:1	3/8
RA-1011	15	20	1.500	38	0.650	17	110 (20)	1.21:1	1/4, 3/8
RA-1004	37	50	1.894	48	0.750	19	110 (20)	1.56:1	3/8, 1/2
RA-1005	66	90	1.894	48	0.750	19	90	1.75:1	1/2
RA-1007	66	90	1.932	49	1.031	26	90	2.375:1	1/2
RA-1006	81	110	2.841	72	1.625	41	90	2.09:1	1/2
RA-1009	406	550	3.396	86	1.663	42	90	2.2:1	3/4, 1"

Numerous variations are available. If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.

^{**} Hex socket gear can be extended or modified to accept adapters, bits, chucks or magnets.

SAFETY SLEEVES (PATENTED)



Many people have suffered serious injuries to their gloved hands due to the pinch point problem that exists on most nutrunner tools at the sockets. Jemms-Cascade Inc. has a pinch-point protector which provides safety, efficiency and smooth running to your nutrunner applications. Our Safety Sleeve is modeled after our patented Whipless Extensions.

Operator protection at a low cost

- Jemms ergonomic design is manufactured of premium materials providing a light weight, long lasting tool addition.
- Standard sockets are stabilized and the pinch point is protected with our use of bearings or custom bushings.
- Contact your local distributor for more information.



WHIPLESS EXTENSIONS (PATENTED)



Our drive shafts are straightened and ground to fit precision bearings. The bearing support sleeve includes the power tool adapter to suit any power tool.

- The reduction of vibration maximizes efficiency and extends the power tool life.
- Product quality is improved with consistent torque output and helps to prevent cross threading fasteners.
- Jemms ergonomic design is manufactured of premium materials providing a lightweight, long lasting tool addition.
- Extensions are available for 1/4" through 1-1/2" squares and 2"- 32" overall length to fit the power tool of your choice.
- Custom designs are also available using non-marring Delrin materials.

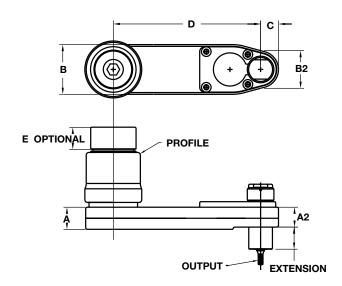
AEROSPACE ATTACHMENTS

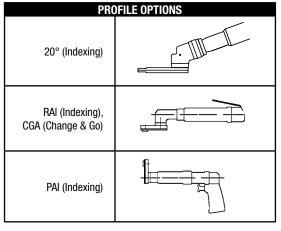


Jemms-Cascade specializes in gear-driven Attachments providing you the versatility to use a power tool of your choice.

- Jemms Hold & Drive (Hi-Loc) Attachments have no outside moving parts, use calibrated pre-load springs and are assembled with minimal components.
- . Our Attachments are manufactured of high strength materials with precision machining. This provides maximum performance with minimal thickness and radius dimensions.
- Options for output gears are available for (Hi-Shear, threaded, spline and standard hex applications.)
- To simplify your operation, our indexing collar provides a quick change mechanism uniquely designed to lock-in position while ergonomically contoured for easy operation.
- "Change and Go" Jemms unique single point adapter allows your operator to quickly switch Attachments using one motor, reducing the time and tools required to secure various fasteners in each station.



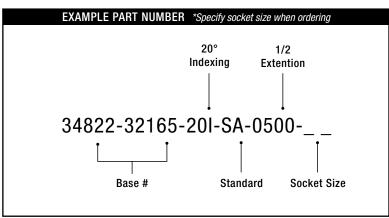




EXTENSION
0FLU = Flush
0125 = 1/8
0250 = 1/4
0375 = 3/8
0500 = 1/2
0750 = 3/4
0875 = 7/8
0100 = 1.000







INSTALLATION SERIES

						TO 1	40 IN.	LB.							
Part #		orque put		Size x**	,	4	А	2	В	2	(;	[)	Sq. Dr.
	IN./LB.	N.M.	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	Up To
34822-32165	60	7	1/4	6	3/8	9.5	0.350	8.9	1.000	25.4	0.305	7.7	1.125	28.6	1/4
54822-32165	60	7	1/4	6	3/8	9.5	0.350	8.9	1.000	25.4	0.305	7.7	2.456	62.4	1/4
34828-32165	60	7	3/8	10	3/8	9.5	0.350	8.9	1.000	25.4	0.366	9.3	1.250	31.8	3/8
54828-32165	60	7	3/8	10	3/8	9.5	0.350	8.9	1.000	25.4	0.366	9.3	2.582	65.6	3/8
324/327125	90	10	7/16	11	5/16	7.9	0.313	7.9	1.000	25.4	0.443	11.3	1.416	36.0	3/8
524/327125	90	10	7/16	11	5/16	7.9	0.313	7.9	1.000	25.4	0.443	11.3	2.832	71.9	3/8
324/329125	90	10	1/2	13	5/16	7.9	0.313	7.9	1.090	27.7	0.485	12.3	1.584	40.2	3/8
524/329125	90	10	1/2	13	5/16	7.9	0.313	7.9	1.090	27.7	0.485	12.3	3.168	80.5	3/8
324/327175	140	16	7/16	11	13/32	10.3	0.370	9.4	1.000	25.4	0.443	11.3	1.416	36.0	3/8
524/327175	140	16	7/16	11	13/32	10.3	0.370	9.4	1.000	25.4	0.443	11.3	2.832	71.9	3/8
324/329125	140	16	1/2	13	13/32	10.3	0.370	9.4	1.090	27.7	0.485	12.3	1.584	40.2	3/8
524/329175	140	16	1/2	13	13/32	10.3	0.370	9.4	1.090	27.7	0.485	12.3	3.168	80.5	3/8
‡															

[†] Numerous variations are available. If required unit is not listed, contact our plant with your application requirements. Lubricate once per shift. Check cover plate screws once per shift. Torque in reverse not to exceed torque in forward.

^{**} Hex socket gear can be extended or modified to accept adapters, bits, chucks or magnets.



AEROSPACE ATTACHMENT QUOTE REQUEST FORM

QUOTE NO.			DATE
Name		Company _	
Street or P.O. Box			
ity	State	Zip	Country
hone Fa	X	Email	
DIMENSIONS - GIVE MAXI	MUM ALLOWABLE	(Please refer	r to diagram)
			Please Check One:
PROFILE			□ 20°
	D -	C	Right Angle Style
Å	A2 B ((((a)))	+ +	32
	1		Pistol Syle
OUTPUT EXT	ENSION		□ Indexing
I IN MM	l IN	MM	I IN MM
A2	С		Hex Size
В	D		Hex ☐ 6pt ☐ 12pt ☐ Other
B2	E		Extension Output Size
necessary, can a sample of the part be se	」	No] [3343333]
ASTENER TORQUE REQUI			
	·		a footoner application
mch/lb Foot/lb M KG/CM			s fastener application: rd Joint
WI RG/CWI			
POWER TOOL			
			Model #
ir □ Electric □ Transducerized? □ Yes			
			Dogo #
art # from catalog (if available)			_ Page #
IOTES/COMMENTS/SPECIAL INSTI	RUCTIONS		



HOLD AND DRIVE QUOTE REQUEST FORM

QUOTE NO.				DATE	
lame			Company		
treet or P.O. Box					
ity		State	Zip	Country	
hone	Fax _		Email		
DIMENSIONS -	GIVE MAXIM	UM ALLOWABL	.E (Please refe	r to diagram)	
ı	+			Please Check One:	
	A2 _			☐ In-Line Style	
A U U U	↑ E Optional		DIA. —	☐ Right Angle Style	
	H2	A2		- Hight Aligio otylo	<u> </u>
<u> </u>	c ←		H/H	☐ Pistol Style	
T		·	I		لــا
A IN	MM	Hold In	fo MM	Diver Inf	o MM
A2		н/н		Hex Size	
В		Υ		Hex Ext.?	
B2		DIA.		 	
С		Hold Bit	l r	If Necessary, can a sampl	e of the part be
D			<u> </u>	sent for our review?	res □ No
E		Bit Travel			
ASTENER TOP	RQUE REQUIRE	EMENT (Fill in one	only)		
nch/lb	Foot/lb			s fastener application:	
IM	KG/CM		□ Ha	ard Joint 🗖 Medium Joint	☐ Soft Joint
POWER TOOL					
	□ 3/8" □ 5/8"	□ 1" □ Other			
Nanufacturer				Model #	
ir 🗖 Electric 🗖 Transc	lucerized? 🗆 Yes 🗔 I	No Source: 🗇	In-House 🗖 Dire	ct 🗇 Distributor 🗇 Jem	ms-Cascade
uantity of Jemms units	to be used: 🗖 12	□ 6 □ 3 □ Other			
art # from catalog (if av	ailable)			Page #	
IOTES/COMMENTS	/SPECIAL INSTRU	CTIONS			



IN-LINE/20° STANDARD ATTACHMENT QUOTE REQUEST FORM

QUOTE	NO.					DATE
Name					Company	
Street or P.C). Box					
City				State	Zip	Country
Phone		Fax _			Email	
DIMEN	SIONS - GI	IVE MAXIM	IUM ALL	OWABLE	(Please refer	to diagram)
						Please Check One:
B	0	C -	B2	H	A2	\\
				G F-		□ In-Line
	IN	MM		IN	MM	IN MM
A2			D			Н
В			Е			Hex Size
B2			F			Hex ☐ 6pt ☐ 12pt ☐ 0ther Hex Magnetized? ☐ Yes ☐ No
С			G			Hex Extension?
If necessary	, can a sample o	f the part be sent	for our review	/? □ Yes □ I	No	
FASTEN	IER TORQI	UE REQUIR	EMENT (Fill in one on	lv)	
		Foot/lb		•		fastener application:
		KG/CM_				Joint
						
POWER Manufacture						Model #
						☐ Distributor ☐ Jemms-Cascade
Quantity of	Jemms units to b	oe used: 🗖 12	□ 6 □ 3	□ Other		
						Page #



IN-LINE/20° TUBE-NUT ATTACHMENT QUOTE REQUEST FORM

CASCADE	EIINC.							
QUOTE	NO.					DATE		
Name					Company			
Street or P.C). Box							
					Zip	Co	untry	
					Email			
DIMEN	SIUNS - G	IVE WAXII	WUW ALL	JWABLE	(Please refer t			
						Please Ch	eck One:	
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A2	114	IVIIVI	E	114	IVIIVI	Tube	IIV.	IVIIVI
В			F			Diameter		
B2			G			Hex Size Hex		
C			н			Extension?		
D			T.O.			Hex ☐ 6pt	□ 12pt □ 0th	er
If necessary	, can a sample o	of the part be ser	nt for our review?	P □ Yes □	No			
EACTER	IED TADA	IIE DENIII	DEMENT (F	"III i.a. aa. a	J. A			
			REMENT (F					
					ls this f ☐ Hard		cation: Medium Joint	☐ Soft Ioint
NM		KG/CM			□ Hara		nodium domi	□ oon oom
POWER	TOOL							
Manufacture	er					Model #		
Air 🗖 Electi	ric 🗖 Transduce	erized? 🗖 Yes	□ No So	ource: 🗖 In-	House 🗖 Direct	Distribut	tor 🗖 Jemms	-Cascade
Quantity of .	Jemms units to I	be Quoted: 🗖 1	12 🗆 6 🗇 3	3 🗇 Other				
Part # from	catalog (if availa	able)				Page #		
NOTES/CO	OMMENTS/SI	PECIAL INSTR	RUCTIONS					



STANDARD ATTACHMENT QUOTE REQUEST FORM

QUOTE	NO.					DATE
Name					Company	
Street or P.O	O. Box					
City				State	Zip	Country
Phone		Fax			Email	
DIMEN	SIONS - G	IVE MAXIN	IUM ALI	LOWABLE	(Please refer t	to diagram)
-						Please Check One:
B [B2				□ In-Line Style
		—— c -	E OPTIONAL			☐ Right Angle Style
Ā		A2	<u> </u>			□ Pistol Style
	IN	MM		IN	ММ	IN MM
A			D			Hex ☐ 6pt ☐ 12pt ☐ Other
A2 B			E			Hex Magnetized? ☐ Yes ☐ No
B2			Hex Size			If necessary can a complete the new he
C			Hex Extended?			If necessary, can a sample of the part be sent for our review? ☐ Yes ☐ No
FASTE	NER TORQ	UE REQUIR	EMENT	(Fill in one on	ly)	
Inch/lb		Foot/lb			Is this f	astener application:
NM		KG/CM			☐ Hard	Joint ☐ Medium Joint ☐ Soft Joint
POWER Square Driv		J 3/8"	□1 " □	1 Other		
Manufactur	er					Model #
						□ Distributor □ Jemms-Cascade
						Page #



TUBE-NUT ATTACHMENT QUOTE REQUEST FORM

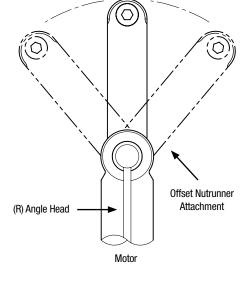
QUOTE NO.			DATE		
me			Company		
reet or P.O. Box					
ty		State	Zip	Country	
one	Fax	<u> </u>	Email		
IMENICIO	NC _ CIVE MAVIR	MIIM ALLOWADIE	(Dioces refer	to diagram)	
IIVIENSIUI	NS - GIVE MAXIN	MUM ALLOWABLE	(Please refer		
		F		Please Check One:	
(°		OPTIONAL		☐ In-Line Style	
	T.0. B2			☐ Right Angle Style	
()	000	<u>A</u>	A2	f	
	D — C —			☐ Pistol Style	
A2	IN MM	IN	MM	IN MM	
B		D		Hex Size	
B2		E	<u> </u>	Extended?	
C		т.о.			
		l	ı] [
necessary, can a	a sample of the part be sen	t for our review? 🗆 Yes 🗆	No		
ASTENER	TORQUE REQUIF	REMENT (Fill in one or	nly)		
:h/lb	Foot/lb		Is this fastener application: ☐ Hard Joint ☐ Medium Joint ☐ Soft Joint ——		
	KG/CM				
OWER TO	OL				
		☐ 1" ☐ Other			
	nufacturer Model #				
anufacturer		¬ No Source: □ In-	House 🗖 Direct	t 🗇 Distributor 🗇 Jemms-Cascade	
	Transducerized? ☐ Yes ☐				
□ Electric □					
r □ Electric □ nantity of Jemm	s units to be used: 🗖 12	□ 6 □ 3 □ Other		Page #	
r □ Electric □ nantity of Jemm rt # from catalo	s units to be used: □ 12 og (if available)	□ 6 □ 3 □ Other			
r D Electric D nantity of Jemm ort # from catalo OTES/COMM	s units to be used: 12 og (if available) ENTS/SPECIAL INSTR	□ 6 □ 3 □ Other UCTIONS		Page #	



MOUNTING PROCEDURES,

Materials needed:

- **Bench Vice**
- Shims (.003, .005, .010) Shims are necessary to maintain proper bevel gear mesh of right angle head.
- 1. Remove pin from square drive spindle.
- 2. Hand-tighten and orientate to within approximately 10° of final location with shims.
- 3. Secure offset (by sides only) in bench vise, DO NOT CRUSH.
- 4. Move tool with right angle to final lock down position.
- **CAUTION:** Never use hammer or any impacting device. Use proper wrenching methods only.
- **TO REMOVE:** Reverse above procedure.



Hand tighten and orientate to

approx. 10° with shims



MOUNTING PROCEDURES, TWO-PIECE ADAPTER

- 1. Remove pin from square drive spindle.
- 2. Remove retaining cap at square drive spindle while spindle is facing up. (There are loose ball bearings in the right angle head.)
- 3. Place the shims over the minor threaded portion of the double threaded adapter and thread into the right angle head. Tighten securely using spanner wrench.
- 4. Hand-tighten and orientate Jemms Attachment to within approximately 10° of final location with shims. Secure offset (by sides only) in bench vise, DO NOT CRUSH. Move tool with right angle to final lock down position.
- CAUTION: Never use hammer or any impacting device. Use proper wrenching methods only.
- TO REMOVE: Reverse above procedure.



MOUNTING PROCEDURES. PATENTED SLIP-ON STYLE

- 1. Remove spring loaded pin from power tool square drive spindle.
- 2. Slip Jemms unit onto power tool spindle until fully seated and centered.
- 3. Seat the set screws (center first) securely and then remove.
- 4. Slip Jemms unit off of power tool and inspect to ensure point marks from set screws are visible. If pin point marks are not readily visible, repeat steps 2 & 3.
- 5. Using safe and proper machining principles enlarge set screw point marks with a drill no larger then .161" diameter and no deeper than the standard cut of the drill point, or .080" whichever is less.
- 6. To secure Jemms unit repeat step #2 then run center screw until just touching right angle head. Repeat procedure on the side screws. Now secure center screw first then the sides. Unit is now functional and power tool can be set up for safe and correct handling.
- 7. Due to variations in castings of right angle heads, minor hand grinding may be necessary to the backside of the slip-on collar or portions of right angle head.



MOUNTING PROCEDURES. SPLINE COLLAR

- 1. Secure threaded adapter onto power tool. (Tighten with spanner or adjustable wrench.)
- 2. Install geared Tube-Nut Attachment.
- 3. Thread on lock nut securely.
- 4. Remove pin from square drive spindle.
- 5. Remove retaining cap at square drive spindle while spindle is facing up. (There are loose ball bearings in the right angle head.)
- 6. Secure the threaded adapter (if design calls for one).
- 7. Engage the mating spline components at the desired position from the gun.
- 8. Secure the outer collar from the Attachment side to the threaded adapter on the motor.

RECOMMENDATIONS FOR MOTOR TYPES & MAINTENANCE PROCEDURES

- 1. Maximum spindle speed 500 RPM on soft joint.
- 2. Determine what type of unit is being used.

Initial torque loss:

3 Gear = 20% initial average

5 Gear = 30% initial average

Tube-Nut = 35% initial average

- 3. For hard to medium joints, use a torque control or mechanically adjustable clutch type power tool only. The use of a stall type tool on a hard/harder joint may cause damage or excessive wear.
- 4. Before installing your Jemms Offset, test the motor torque output. CAUTION: set test apparatus to match the type of joint (hard, medium or soft) that is on the line.
 - a. Rundown a sequence of 20-25 cycles.
 Adjust motor output as needed to produce required final torque while minding the Attachment efficiency.
 - **b**. Remove square drive/bearing cap (most power tools) and thread on Jemms unit using a bench vice and proper wrenching methods only. Never hit or beat with any impacting device. (see "Mounting Procedures" for further information)
- 5. Rundown a sequence of 20-25 cycles, then adjust torque as needed on the motor. For stall tools adjust air pressure in 5 psi increments.
- 6. Do not feed more torque into the Jemms unit than it is rated. Operating at or beyond maximum torque rating may cause higher maintenance.
- 7. Lubricate once a shift. (Alemite #Z-737 fitting)
- 8. Check cover plate screws once a shift to insure full seating. If cover plate is loose excessive wear or damage may occur.
- 9. Pulse tools may cause high maintenance

WARRANTY

J.C.I. Jemms-Cascade, Inc. products are WARRANTED to be free of defect in material and craftsmanship for 1 (one) year to original buyer from J.C.I. or its authorized representatives. This warranty applies only to products manufactured by J.C.I. or its affiliates. This warranty DOES NOT APPLY to products that have been abused, misused, modified, neglected, improperly operated, poorly maintained or serviced with substandard parts. Product must be returned with our authorization, freight pre-paid for our inspection. Any replaced parts will become the property of J.C.I.

THERE ARE NO OTHER WARRANTIES EXPRESSED OR IMPLIED. J.C.I. SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, OR ANY OTHER COSTS OR EXPENSES EXCEPTING ONLY THE COST OR EXPENSE OF REPAIR OR REPLACEMENT OF J.C.I. PRODUCT AS STATED ABOVE.

TERMS Net 30

FREIGHT F.O.B. OUR PLANT - TROY, MI USA

CUSTOMER SATISFACTION IS OUR PRIMARY OBJECTIVE. WHICH WE OBTAIN THROUGH PERFORMANCE.

*Actual amount of cycles is dependent upon power tool used, set up, torque requirement, speed, joint and operator handling. Cycle life varies with any given unit. To date, a number of different attachments have been independently durability tested a minimum of 250,000 cycles each in a controlled lab environment. Should you have any questions in reference to the amount of cycles you can expect in your particular application, contact our plant.

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^{*}Terms and Prices subject to change without notice.



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