

Product Catalog



About CTT:

Coil Tubing Technology, Inc. (CTT) is a leader in providing new technology to the coiled tubing industry specializing in the design of proprietary downhole tools used in conjunction with coiled tubing. The Company's emphasis is on innovation, quality, service and performance. Our mission is to provide the worldwide coiled tubing industry with the highest level of technology available to the marketplace.

CTT supplies a full line of proprietary tools, manufactured in accordance with and to oil industry specifications. The tools are provided to oil companies, coiled tubing operators and well service companies for use in thru tubing fishing, thru tubing well stimulation workover, and coiled tubing lateral drillout operations.

CTT offers tools on a rental basis or sells tools. CTT services our tools at our shop in Houston, Texas and maintains a high quality standard for manufacturing and redress of all tools. For more information contact CTT at ctt@coiltubingtechnology.com or contact your local sales representative.



Here's Where You Find Us:

CTT's corporate office is located in Houston, Texas.

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CTT "H/H" Jar (Patented)

Description:

The "CTT H/H Jar" presents the most advanced technology available in metering of hydraulic fluids. The "CTT H/H Jar" provides the optimum time delay and maximized velocity at detent release providing an impact force at the "fish" previously unavailable in coil tubing operations.

By utilizing the "CTT H/H Jar" the CT operator has the ability to place the tool at the optimum position in the string.

Operational Advantages:

Minimal mechanical "drag" at detent release permits the maximum acceleration of the mass to the hammer and anvil. Fully hydraulic operation permits a wide range of overpull or setdown weight.

Utilizing the "CTT Amplidyne" with the "CTT H/H Jar" further enhances the acceleration of the tool.

Energy provided by the "CTT H/H Jar" requires fewer cycles to free the string thus reducing fatigue at the gooseneck.



CTT "H/H" Jar (Patented)

O.D. SIZE	STANDARD CONNECTION	LENGTH INCHES	I.D.	OPER. OVERPULL	OPER SET DOWN	STROKE INCHES	TEMPERATURE °F
1.500	Available upon Request						
1.688	1" MT	57"	.562"	8K	8K	3.5"	450
2.125	1-1/2" MT	57"	.625"	26K	16K	3.5"	450
2.875	2-3/8" PAC	57"	1"	45K	25K	3.5"	450
3.125	2-3/8" PAC	57"	1"	70K	35K	3.5"	450

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					THE TLANT
	1.688" "CTT H/H Jar"	2.125" "CTT H/H Jar"	2.875" "CTT H/H Jar"	3.125" "CTT H/H Jar"	
Assembly Part Number	90-1688	90-2125	90-2875	90-3125	
Outside Diameter	1.168"	2.125"	2.875"	3.125"	
Inside Diameter	0.562"	0.625"	1"	1"	
Overall Length (Maximum)	57.25"	57.25"	57.25"	57.25"	
Overall Length (Maximum)	64.25"	64.25"	64.25"	64.25"	
Total Stroke	7"	7"	7"	7"	
Approximate Weight (Lbs.)	25	35	55	95	
Standard Tool Joint	1" AMMT Pin Down / Box Up	1-1/2" AMMT Pin Down / Box Up	2-3/8" PAC Pin Down / Box Up	2-7/8" PAC Opt. 2-3/8" REG Std. Pin Down / Box Up	
Operational					
Recommended Maximum Overpull Weight (Lbs.)	28,000	46,000	65,000	90,000	
Maximum Setdown Weight (Lbs.)	28,000	36,000	45,000	55,000	
Torsional Yield (Ft-Lbs.)	1,500	5,500	8,000	14,000	
Tensile Yield	56,000	76,000	105,000	300,000	
Temperature Rating	500	500	500	500	



CTT Amplidyne

Description:

The "CTT Amplidyne" is used with the "CTT H/H Jar" to intensify the impact at the jar hammer and anvil.

The "CTT Amplidyne" develops reactive energy from the overpull or setdown on the jar. The energy is then transferred into a fluid spring and valve system that accelerates the velocity enhancing by four times the over pull or setdown weight as impact force at the hammer and anvil.

The "CTT Amplidyne" is compact in length to maintain a short fishing or drilling string on coiled tubing, yet designed to maximize the velocity and impact to the hammer and anvil at the jar release. The "CTT Amplidyne" has a large I.D. to permit passage of drop balls which permits placement of the tool at any position in the work string.



CTT Amplidyne

O.D.	STANDARD	LENGTH	I.D.	OPER.	OPER.	STROKE	TEMPERATURE
SIZE	CONNECTION	INCHES	1.1).	OVERPULL	SET DOWN	INCHES	۰F
1.500	Available upon request						
1.688	1" MT	57"	.562"	8K	8K	3.5"	450
2.125	1-1/2" MT	57"	.625"	16K	16K	3.5"	450
2.875	2-3/8" PAC	57"	1"	25K	25K	3.5"	450
3.125	2-3/8" PAC	57"	1"	35K	35K	3.5"	450

 1.500" "Amplidyne" "Amp

		P	py	Py	P	
Assembly Part Number	_	91-1688	91-2125	91-2875	91-3125	
Outside Diameter		1.168"	2.125"	2.875"	3.125"	
Inside Diameter	•	0.562"	0.625"	1"	1"	
Overall Length (Maximum)		57.25"	57.25"	57.25"	57.25"	
Overall Length (Open)	_	64.25"	64.25"	64.25"	64.25"	
Total Stroke		7"	7"	7"	7"	
Approximate Weight (Lbs.)	-	25	35	55	95	
Standard Tool Joint	Available upon request	1" AMMT Pin Down / Box Up	1 ½" AMMT Pin Down / Box Up	2 3/8" PAC Pin Down / Box Up	2 3/8" PAC Pin Down / Box Up	
Operational						
Recommended Maximum Overpull Weight (Lbs.)	•	28,000	46,000	65,000	90,000	
Maximum Setdown Weight (Lbs.)	-	28,000	36,000	45,000	55,000	
Torsional Yield (Ft-Lbs.)		1,500	5,500	8,000	14,000	
Tensile Yield	_	56,000	76,000	105,000	300,000	
Temperature Rating	-	450	450	450	450	



CTT Oscillator (Patent Pending)

Description:

Operational Methods of Creating Vibrational Frequency

- The "CTT Oscillator" generates imbalanced rotational frequency generated and controlled by an Internal Eccentric Drive Sub placed on the patented "CTT Jet Motor "connected to a Flex Joint Ported Sub Housing.
- The tool's internal frequency is then transmitted to the other housing creating a motion that pushes or pulls the string. The more free string available also contributes to the magnitude of Oscillation affects.

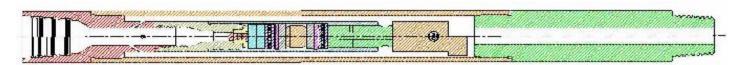
"CTT Oscillator" Component & Operational Data

- The Top Ported Sub (Item 1) distributes fluid and pressure up to volume required by the customer's hydraulic specifications. Up to 40 GPM is distributed to the Power Section (Item 2) through to Oscillators Eccentric Sub (Item 3) which rotationally energizes and generates a controlled frequency per rotation.
- All Fluid not required to operate the (Item 2) Power Section is circulated by and through to the Lower Sub (Item 4) along with fluid from the Eccentric Sub Nozzle (Item 5). (GPM and Pressures setup are standard 3 barrels and 500 1500 PSI pressure drop. Other Hydraulic requirements and frequency can be adjusted to customers' requests).



CTT Oscillator (Patent Pending)

O.D. SIZE	STANDARD CONNECTION	LENGTH INCHES	WEIGHT LBS	FLOW RATE GPM/LITRE	TEMPERATURE °F	OPERATION PRESSURE DROP	MAX PULL
2.125	1-1/2" MT	22"	14 LBS	40-120 GPM	450°	300 – 1000 PSI	55,000
2.875	2-3/8" PAC	35"	35 LBS	40-120 GPM	450°	300 – 1000 PSI	75,000
2.875	2-3/8" PAC	66"	70 LBS	40-120 GPM	450°	300 – 1000 PSI	75,000
3.125	2-3/8" REG	37"	45 LBS	40-120 GPM	450°	300 – 1000 PSI	82,500



2.125" CTT Oscillator	2.875" CTT Oscillator	2.875" CTT Extreme Oscillator	3.125" CTT Oscillator
PSI	PSI	PSI	PSI
100 PSI	100 PSI	100 PSI	100 PSI
200 PSI	200 PSI	200 PSI	200 PSI
300 PSI	300 PSI	300 PSI	300 PSI
400 PSI	400 PSI	400 PSI	400 PSI
500 PSI	500 PSI	500 PSI	500 PSI
600 PSI	600 PSI	600 PSI	600 PSI
GPM/LITRE	GPM/LITRE	GPM/LITRE	GPM/LITRE
40 GPM / 151 LITRE	40 GPM / 151 LITRE	40 GPM / 151 LITRE	40 GPM / 151 LITRE
60 GPM / 227 LITRE	60 GPM / 227 LITRE	$60~\mathrm{GPM}$ / $227~\mathrm{LITRE}$	60 GPM / 227 LITRE
80 GPM / 303 LITRE	80 GPM / 303 LITRE	$80~\mathrm{GPM}$ / $303~\mathrm{LITRE}$	$80~\mathrm{GPM}$ / $303~\mathrm{LITRE}$
100 GPM / 379 LITRE	100 GPM / 379 LITRE	100 GPM / 379 LITRE	100 GPM / 379 LITRE
100 GPM / 379 LITRE	100 GPM / 379 LITRE	100 GPM / 379 LITRE	100 GPM / 379 LITRE
120 GPM / 454 LITRE	120 GPM / 454 LITRE	120 GPM / 454 LITRE	120 GPM / 454 LITRE
FREQUENCY HZ	FREQUENCY HZ	FREQUENCY HZ	FREQUENCY HZ
6.75 HZ	9 HZ	13.5 HZ	9.90 HZ
9 HZ	12 HZ	18 HZ	13.20 HZ
11.25 HZ	15 HZ	22.5 HZ	16.50 HZ
15 HZ	20 HZ	30 HZ	22 HZ
18 HZ	24 HZ	34 HZ	26.40 HZ
25.50 HZ	34 HZ	51 HZ	37.40 HZ



CTT Ampli-Max (Patent Pending)

Description:

The Ampli-max is set up as a dual stage tool. The top end of the tool incorporates a dual acting valve mechanism that relieves a spring loaded triggering mechanism accelerating a piston to an internal stop creating a high energy internal frequency impact in a timed sequence with dual acting (up and down) impulses controlled by pressure and fluid (or gas) volumes. The energy generated in the top tool section is thus converted to lateral hertz frequency.

The bottom end of the Ampli-max consists of an internal rotational motor with an eccentric counter weighted component that generates high rpm and radial frequency based on pressure and GPM. The CTT Ampli-max is a unique tool that generates both lateral and radial hertz frequency that assists in the efficiency of extended reach drilling.



CTT Ampli-Max (Patent Pending)

O.D. SIZE	STANDARD CONNECTION	LENGTH INCHES	WEIGHT LBS.	TEMPERATURE °F	OPER. PRESSURE DROP	MAX PULL
2.875	2-3/8" PAC	77"	100 LBS	450	300 – 1000 PSI	75,000
2.875	2-3/8" PAC	113"	150 LBS	450	300 – 1000 PSI	75,000
3.125	2-3/8" REG	77"	125 LBS	450	300 – 1000 PSI	90,000

2.875" Ampli-Max	2.875" Extreme Ampli-Max	3.125" Ampli-Max
PSI	PSI	PSI
100 PSI	100 PSI	100 PSI
200 PSI	200 PSI	200 PSI
300 PSI	300 PSI	300 PSI
400 PSI	400 PSI	400 PSI
500 PSI	500 PSI	500 PSI
600 PSI	600 PSI	600 PSI
GPM/LITRE	GPM/LITRE	GPM/LITRE
40 GPM / 151 LITRE	40 GPM / 151 LITRE	40 GPM / 151 LITRE
60 GPM / 227 LITRE	60 GPM / 227 LITRE	60 GPM / 227 LITRE
80 GPM / 303 LITRE	80 GPM / 303 LITRE	80 GPM / 303 LITRE
100 GPM / 379 LITRE	100 GPM / 379 LITRE	100 GPM / 379 LITRE
120 GPM / 454 LITRE	120 GPM / 454 LITRE	120 GPM / 454 LITRE
180 GPM / 681 LITRE	180 GPM / 681 LITRE	180 GPM / 681 LITRE
FREQUENCY HZ	FREQUENCY HZ	FREQUENCY HZ
30.5 HZ	50.5 HZ	33.5 HZ
38 HZ	58 HZ	41.8 HZ
52 HZ	72 HZ	57.2 HZ
68 HZ	88 HZ	74.8 HZ
74 HZ	94 HZ	81.4 HZ
85 HZ	105 HZ	93.5 HZ
PSI DROP ACROSS TOOL	PSI DROP ACROSS TOOL	PSI DROP ACROSS TOOL
250 PSI	250 PSI	250 PSI
300 PSI	300 PSI	300 PSI
400 PSI	400 PSI	400 PSI
600 PSI	600 PSI	600 PSI
800 PSI	800 PSI	800 PSI
900 PSI	900 PSI	900 PSI



CTT "Long Stroke" Bumper Sub

Description:

The CTT "Long Stroke" Bumper Sub is used in fishing, drilling and milling operations. The LSBS is also utilized as a tagging up indicator in the CT application. When the LSBS is set down on an object (fish or other object) the weight indicator reflects the LSBS free stroking indicating the tag up point.



CTT "Long Stroke" Bumper Sub

O.D. SIZE	STANDARD CONNECTION	LENGTH INCHES	I.D. INCHES	OPER. OVERPULL	OPER SET DOWN	STROKE INCHES	TEMPERATURE °F
1.688	1" AMMT	56.5"	.562"	8K	8K	12"	600
2.125	1-1/2" AMMT	56.5"	.625"	26K	16K	12"	600
2.875	2-3/8" PAC or REG	56.5"	1"	45K	25K	12"	600
3.125	2-7/8" PAC or REG	56.5"	1"	70K	35K	12"	600

	1.688" "CTT LSBS"	2.125'' ''CTT LSBS''	2.875" "CTT LSBS"	3.125" "CTT LSBS"
Assembly Part Number	120-1688	120-2125	120-2875	120-3125
Outside Diameter	1.168"	2.125"	2.875"	3.125"
Inside Diameter	0.562"	0.625"	1"	1"
Overall Length (Maximum)	56.5"	56.5"	56.5"	56.5"
Overall Length (Maximum)	64.25"	64.25"	64.25"	64.25"
Total Stroke	12"	12"	12"	12"
Approximate Weight (Lbs.)	25	35	55	95
Standard Tool Joint	1" AMMT	1-1/2" AMMT	2-3/8" REG OR PAC	2-7/8" REG OR PAC
Operational				
Torsional Yield (Ft-Lbs.)	1,500	5,500	8,000	14,000
Tensile Yield	56,000	76,000	105,000	300,000
Temperature Rating (F)	600	600	600	600

Note: Larger O.D.'s, I.D.'s and longer stroke available upon request



CTT Jet Hammer (Patent Pending)

Description:

The "CTT Jet Hammer" is a powerful downhole rotating impact actuator designed for use in coiled tubing workover service. The high energy impact frequency and torque output of the "CTT Jet Hammer" provides efficient removal of paraffin, scale, sludge, and tar as well as an effective tool for drilling barium, sand, and cement bridge plugs. When a "blind box" is used in place of the bit or mill the "CTT Jet Hammer" can be utilized to drive debris downhole.

Operation of the "CTT Jet Hammer" begins when the bit comes into contact with a resistance that forces the mandrel closed to the tool housing. Internal pressure builds until the tool's internal valve opens thrusting the bit outwardly with high velocity acceleration and rotational torque into the medium being drilled.

Water or light drilling fluid may be used as well as nitrogen when comingled with soap or foam to operate the tool.



CTT Jet Hammer (Patent Pending)

O.D.	STANDARD	LENGTH	FLOW	SPEED	OP. DP	CYCLES	TEMPERATURE
SIZE	CONNECTION	INCHES	GPM/LITRE	RPM	PSI	PER MIN	۰F
1.375	3/4" MT	22"	20 / 76	60	500	1500	450
1.69/1.75	1" MT	22"	35 / 132	60	500	1500	450
2.125	1-1/2" MT	25"	60 / 227	60	500	1500	450

	1.375" "CTT Jet Hammer"	1.688" "CTT Jet Hammer"	1.750" "CTT Jet Hammer"	2.125" "CTT Jet Hammer"
Assembly Part Number	30-1375	30-1688	30-1750	30-2125
Outside Diameter	1.375"	1.688"	1.750"	2.125"
Bit Range	1.400 – 1.700	1.700 - 2.000	1.875 - 2.250	2.189 – 3.000
Overall Length (Maximum)	22"	22"	22"	25"
Approximate Weight (Lbs.)	10	15	18	25
Standard Tool Joint	3/4" AMMT Box Down / Box Up	1" AMMT Box Down / Box Up	1" AMMT Box Down / Box Up	1-1/2" AMMT Box Down / Box Up
Operational				
Operating Pressure (Maximum)	500 PSI	500 PSI	500 PSI	500 PSI
Flow Rate (Optimum)	20 GPM/600 SCFM	35GPM/1000 SCFM	35GPM/1000 SCFM	60 GPM/1500 SCFM
Torsional Yield (FtLbs.)	15,000	20,000	25,000	35,000.
Tensile Yield (Lbs.)	20,000	24,000	25,000	28,000
Temperature Rating (F)	450	450	450	450
Performance at Optimum				
Impacts Per Min/Impact Force	1500 cycles /10,000 Lbs.	1500 cycles /15,000 Lbs.	1500 cycles /15,000 Lbs.	1500 cycles /20,000 Lbs.
RPM	60	60	60	60



CTT Jet Motor (Patented)

Description:

The "CTT Jet Motor" is a powerful downhole rotating motor designed for use in coiled tubing drilling and workover service. The rotational torque output in foot pounds is equal to or greater than many conventional positive displacement motors on the market today.

The advantage of The "CTT Jet Motor" is the elimination of elastomers in the tool and compact length. The tool can be run with fluid, nitrogen, acids or co-mingled fluids without damaging the tool.

The "CTT Jet Motor" can be utilized to drill formation, cement plugs or clean-out work. The external rotational nozzle system can clean the tubing completely to the wall and the "CTT Jet Motor" drill bit removes obstructions all in one trip.

The "CTT Jet Motor" can be used in hot hole situations without damage to the tool as there are no rubber products in the "CTT Jet Motor" to swell and deteriorate.

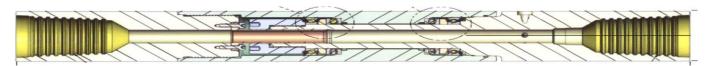
Redress cost of the "CTT Jet Motor" is very minimal compared to a conventional PDM as there are no rotors or stators to replace or repair in the tool.



CTT Jet Motor

(Patented)

O.D. SIZE	STANDARD CONNECTION	LENGTH INCHES	OP W.O.B	FLOW GPM/LITRE	SPEED RPM	OP. DP PSI	OP. TORQUE FT/LBS.	TEMPERATURE °F
1.688	1" MT	19"	300	30 / 114	300	500	80	450
1.750	1" MT	19"	300	30 / 128	300	500	80	450
2.125	1-1/2" MT	22"	500	70 / 270	400	500	300	450
2.875	2-3/8" PAC	22"	600	90 / 341	500	600	450	450



	1.688" "CTT Jet Motor"	1.750'' "CTT Jet Motor''	2.125" "CTT Jet Motor"	2.875" "CTT Jet Motor"	
Assembly Part Number	70-1688	70-1750	70-2125	70-2875	
Overall Length (Maximum)	21"	21"	24"	24"	
Approximate Weight Lbs.	10	12	20	30	
Standard Tool Joint	1" AMMT Box Up x 1" AMMT Box Down	1" AMMT Box Up x 1" AMMT Box Down	1-1/2" AMMT Box Up x 1-1/2" AMMT Box Down	2-3/8" PAC Box Up x 2-3/8" PAC Box Down	
Operational					
Operating Pressure (Maximum)	500 PSI	500 PSI	750 PSI	1200 PSI	
MAX OVERPULL (Lbs.)	20,000	20,000	25,000	40,000	
Flow Rate (Optimum)	32 GPM/250 SCFM	32 GPM/250 SCFM	70 GPM/500 SCFM	120 GPM/700 SCFM	
Torsional Yield (Ft-Lbs.)	5,000	7,000	10,000	15,000	
Tensile Yield (Lbs.)	41,000	52,000	60,000	68,000	
Temperature Rating (F)	450	450	450	450	
Performance at Optimum					
Nozzle Diameter/Jet Impact Force Per Nozzle (Lbs.)	.188/52	.188/52	.188/52	.188/200	
Wt./RPM	500 Lbs		500 Lbs. 1500 Lbs. @ 600 RPM @ 600 RPM		
MAX ALLOWABLE WT. ON BIT (Lbs.)	1,000	1,000	2500	3000	
Torque Output/Stall	90 Ft. Lbs./ 120 Ft. Lbs. Stall	90 Ft. Lbs./ 120 Ft. Lbs. Stall	300 Ft. Lbs./ 450 Ft. Lbs. Stall	450 Ft. Lbs./ 600 Ft. Lbs. Stall	



CTT Jet Nozzle

Tool	Connection	Standard	Standard Nozzle Setu	Pressure Drop Across Nozzle					
O.D.		Rate		(Feet per Second Jet Velocity)					
1.25"	3/4" AMMT Box Up				500 PSI	1000 PSI	1500 PSI	2000 PSI	2500 PSI
1.50"	1" AMMT Box Up	38 GPM	Cutting Head Nozzle	1/16"	266	377	453	N/A	N/A
1.75"	1" AMMT Box Up	" AMMT Box Up Head Rotational Nozzle 5/64"		5/64"	"	"	"		
	·		Backflow Nozzle	3/64"	"	"	"		
NOTE: For Greater GPM Adjust Backflow Nozzle size by 1/64" per 10 GPM Required up to 60 GPM MAX									
2.125"	1 1/2" AMMT Box	42 GPM	Cutting Head Nozzle	1/16"	266	377	453	535	595
			Head Rotational Nozzle	1/8"	"	"	"	"	"
			Backflow Nozzle	1/8"	"	"	"	"	"
NOTE: For Greater GPM Adjust Backflow Nozzle size by 1/64" per 10 GPM Required up to 70 GPM MAX									
2.875"	2 3/8" PAC Box Up	60 GPM	Cutting Head Nozzle	1/16"	266	377	453	535	595
			Head Rotational Nozzle	1/8"	"	"	"	"	"
			Backflow Nozzle	1/8"	"	"	"	"	"



CTT Rotating Tool (Patented)

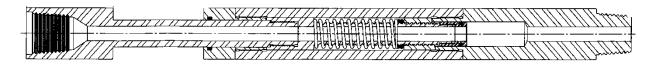
Description:

The "CTT Rotating Tool" is a product specifically designed and developed for use in coiled tubing and wireline operations to mechanically induce rotation of components in the work string. The "CTT Rotating Tool" is designed to provide up to (8) full 360 degree revolutions per cycle with rotation initiated when 50 pounds of weight is set down on the tool.



CTT Rotating Tool (Patented)

O.D. SIZE	STANDARD CONNECTION	LENGTH INCHES	BORE I.D.	ROTATIONS PER CYCLE	TEMPERATURE °F
1.688	1" MT	32"	.562	4 – 3600	450
1.750	1" MT	32"	.562	4 – 3600	450
2.125	1-1/2" MT	42"	.625	4 – 3600	450
2.875	2-3/8" PAC	42"	.812	4 – 3600	450



	1.688"	1.750"	2.125"	2.875"
	"CTT Rotating Tool"	"CTT Rotating Tool"	"CTT Rotating Tool"	"CTT Rotating Tool"
Assembly Part Number	80-1688	80-1750	80-2125	80-2875
Outside Diameter	1.168"	1.750"	2.125"	2.875"
Inside Diameter	0.562"	0.562"	0.625"	0.812"
Overall Length (Maximum)	35"	35"	42"	47"
Approximate Weight (Lbs.)	25	30	45	80
Standard Tool Joint	1" AMMT Pin Down / Box Up	1" AMMT Pin Down / Box Up	1-1/2" AMMT Pin Down / Box Up	2-3/8" PAC Pin Down / Box Up
Operational				
Maximum Overpull Weight (Lbs.)	28,000	28,000	46,000	75,000
Maximum Setdown Weight (Lbs.)	28,000	28,000	36,000	45,000
Torsional Yield (FtLbs.)	3,000	3,000	4,000	5,000
Tensile Yield	64,000	68,000	76,000	105,000
Temperature Rating (F)	500	500	500	500