



YOUR SOLUTIONS PROVIDER

IUBS | INDUSTRIES



MECHANICAL TUBING CATALOGUE



Distributes Products For Use In...

GRAIN BINS	TRAILERS	FARM EQUIPMENT
PLAYGROUNDS	SCAFFOLDING	GARAGE DOORS
SHELTERS	SHELVING	and MORE!
TARP SYSTEMS	TRAMPOLINES	

**Exclusive Western Canadian
Distributor for...**



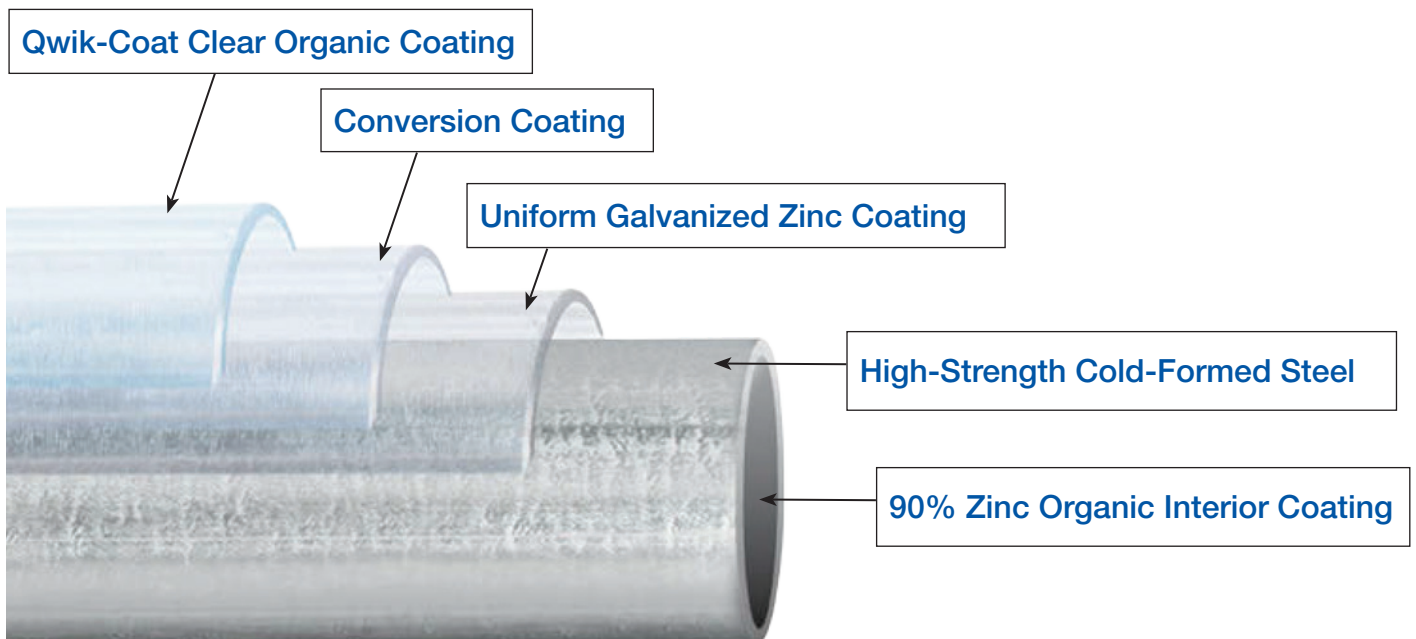
Flo-Coat/Gatorshield delivers excellent results when compared with alternative products



	Flo-Coat/ Gatorshield	Hot-Dip (Schedule 40)	Pre – Galvanized
Strength	50 ksi	30 ksi	40 ksi
Coatings	3 layers	1 layer	2 layers
Wall Thickness	Excellent	Limited	Good
Custom Mill Lengths	Any Length	Limited	Any Length
Weld Friendliness	Excellent	Poor	Fair
Zinc Thickness Control	Good	Limited	Limited
Mechanical Suitability	Excellent	Poor	Good
ID Weld Seam Coating	Excellent	Good	Poor

Process/ Capability	Flo-Coat	Gatorshield
Painting	x	
Powder Coating	x	
Storage		
Inside	x	x
Outside	x	x
Extreme Corrosive Conditions		x

Process/ Capability	Flo-Coat	Gatorshield
Fabrication		
Laser Cutting	x	x
Welding	x	x
Hole Punching	x	x
Bending	x	x
Swaging	x	x



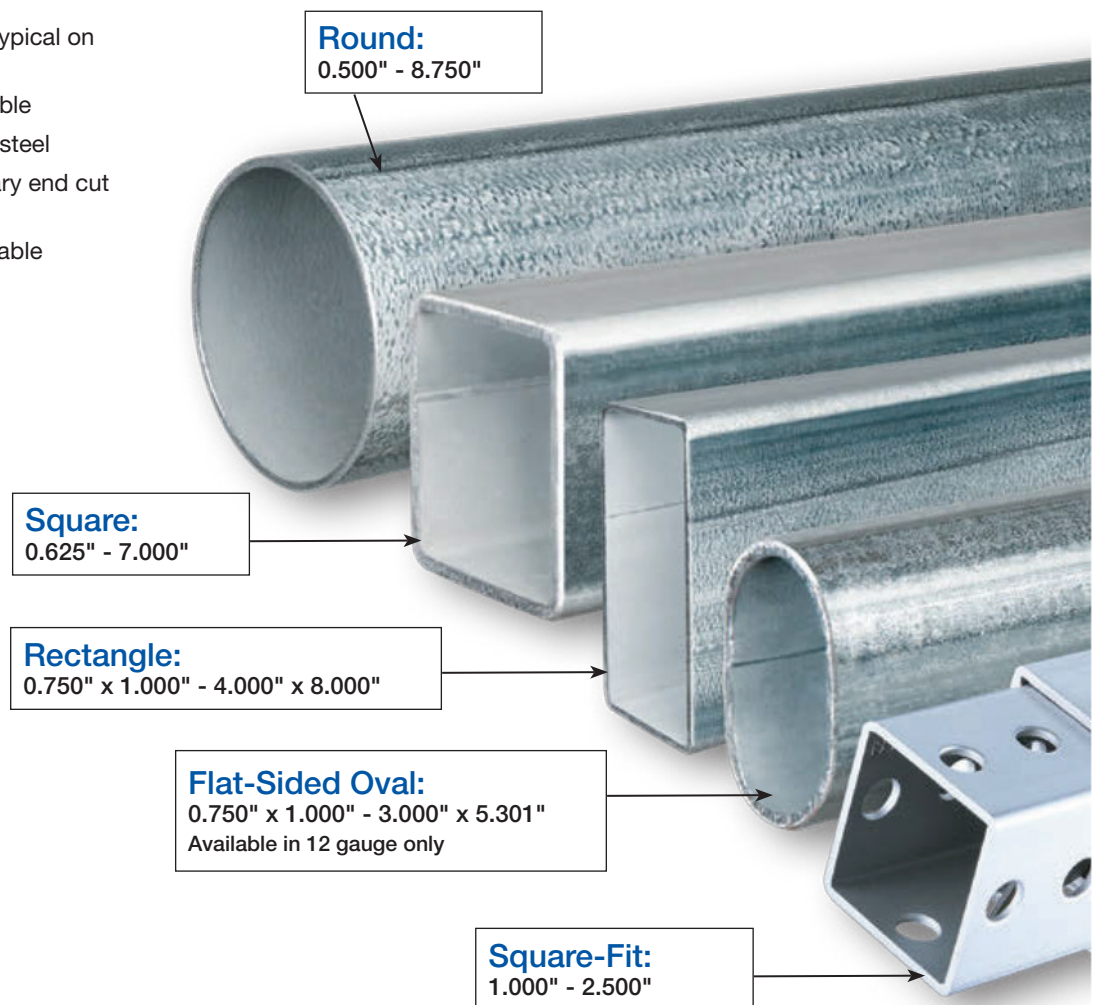
Strength - Corrosion Protection - Workability

GAUGE RANGE: 7 - 22 (0.188" - 0.028")

Refer to the Allied Tube Conduit WPF chart on page 10 & 11 for specific OD and gauge combinations

Typical Applications		
Flo-Coat	Gatorshield	Square Fit
Roller Conveyors	Dairy Stalls	Shelving Racks
Commercial Playgrounds	Greenhouses	Ceiling Grids
Farm Gates	Fabric Buildings	Conveyor Systems
Horse Trailers	Satellite Dishes	Material Handling Supports
Carports	Solar	Scaffolds

- Formable, heavy zinc layer
- no cracking or flaking
- Organic topcoat to fight white and red rust
- Zinc-based organic ID coating
- Fully covering the ID including the weld
- Inkjet Stenciling
- High-strength 50ksi yield typical on many products
- High strength steels available
- Hot-rolled and cold-rolled steel
- Both primary and secondary end cut conditions
- Expanded size range available



A COMPLETE PRODUCT LINE

With such a wide-range of uses, Allied Tube & Conduit's in-line galvanized tubing must be versatile. Our capabilities include shapes such as: round, square, rectangle and flat-sided ovals. These shapes come in a number of different wall thicknesses (see WPF chart) for use in the majority of mechanical and structural applications.

With the addition of a new state of the art in-line mill, a wide variety of sizes and shapes are now an option, including even larger outer diameter tube dimensions. Allied Tube & Conduit's tubing is manufactured to ASTM A787 and ASTM A500 with coatings applied according to A1057. Custom requirements are available to meet your specific needs, including high strength steels.

FLO-COAT

Flo-Coat tubing is "the original in-line galvanized product". Developed first in 1959, Allied Tube & Conduit created a technique to run welded tubing through molten zinc utilizing our in-line process. Flo-Coat features advanced levels of corrosion protection, higher strength through cold forming and is designed to be paint and powder coat friendly.

GATORSHIELD

Gatorshield tubing is manufactured using the same in-line galvanizing process as our Flo-Coat product. A heavier layer of zinc is applied which provides additional corrosion protection. It is ideal for outdoor or high-moisture applications.

SQUARE-FIT

Square-Fit's unique telescoping action gives flexibility in design and assembly of your product. Made with the latest high-speed roll forming technology, smaller sizes fit smoothly and snugly into the next larger size giving it the ability to telescope. It is available with and without holes. The product is available in a G90 pre-galvanized finish with clear organic Qwik-Coat.



The next time you park your car, go out shopping or make a cell phone call, it's most likely you'll encounter in-line galvanized tubing. Uses of Allied Tube & Conduit's in-line galvanized product include carports, cart corrals, greenhouses and cell towers. It's also used in industrial applications such as conveyor rollers, dairy stalls and to mount solar power equipment. So whether you are aware of it or not, in-line galvanized tubing is a part of your life. Allied Mechanical Tubing contains recycled steel and is also completely recyclable.

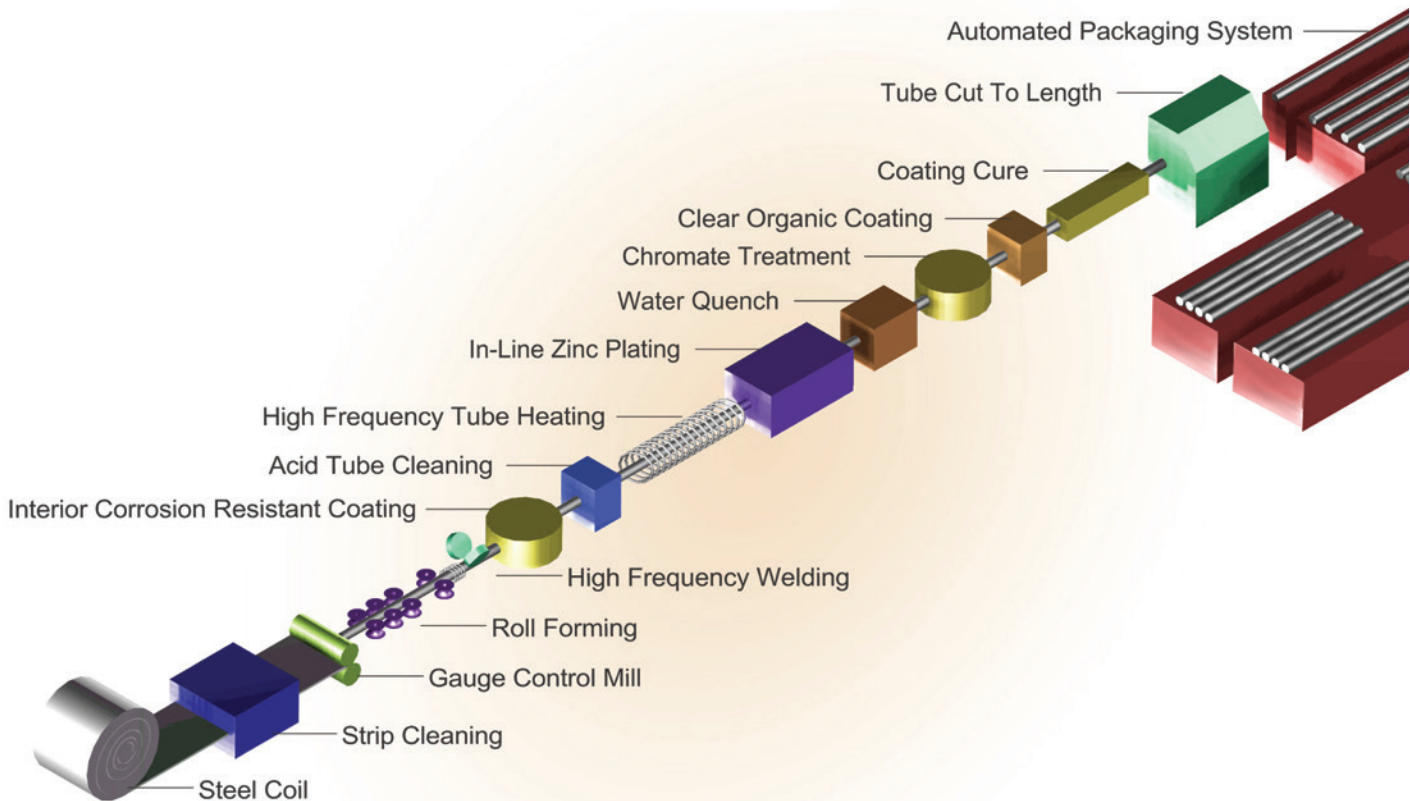
PRODUCTS

As a leading supplier to industrial markets, we design products that reduce your operational costs while increasing performance to create solutions that will enable you to get the most out of your application. Allied Tube & Conduit's in-line galvanized tubing is engineered to eliminate production steps, reduce your overall steel weight and provide an overall application improvement. Our products lend themselves to be a solution to costly bottlenecks associated with paint, powder coating, hot-dip galvanizing or any other secondary coating operation. Our products will start working for you as soon as they reach your door, foregoing multi-step cleaning and surface preparation processes.

PROCESS

With our in-line galvanizing process, we create robust tubular solutions that make your production process more fluid. Our emphasis is to bring increased value to your product that will command a premium in its respective marketplace.

FLO-COAT® PROCESS



STRENGTH

We meet a minimum 50 ksi yield and 55 ksi tensile on many of our products with the ability to achieve even higher properties including HSLA grades. Compared to Schedule 40 pipe at 30 ksi, Allied Tube & Conduit's tubing provides a variety of higher strength alternatives.

REDUCED WEIGHT

Allied Tube & Conduit's tubing is adapted for the specific use of your applications. Our tube is produced by specific wall thickness rather than 1/16 or schedule pipe designations. Allied Tube & Conduit's tubing is demonstrative that strength is not represented by wall thickness alone, but rather by the appropriate combination of steel grade and yield/tensile properties, and our unique processing techniques.

OUTSTANDING CORROSION PROTECTION

Allied Tube & Conduit's signature in-line galvanizing process exhibits superior corrosion resistance by utilizing a triple layer of protection. First a 99.99% pure zinc coating is applied to the surface, followed by a conversion coating. The process is completed by adding a clear organic topcoat that seals the surface and produces a smooth shiny finished product unique to Allied Tube & Conduit. Exceptional corrosion protection is achieved by the collective performance of our three bonded coatings as compared to a single layer of zinc. Allied Tube & Conduit's tubing was designed for critical long-lasting applications, and is ideal for outdoor or high-moisture environments.

WELD FRIENDLINESS

Due to its 99.99% pure zinc uniform coating; Allied Tube & Conduit's tubing can be easily welded. Contrary to popular belief, all galvanized products do not perform the same with regards to welding suitability. Weld performance is an important feature of the Allied Tube & Conduit's tubing product and one that has made it a success in several marketplaces for over 50 years.

FORMABILITY

Allied Tube & Conduit's tubing is also capable of being fabricated using several different methods including hole punching, cutting, flattening, bending and more without the degradation of the coatings. All of these operations can be performed without cracking, flaking or otherwise damaging the integrity of the coating.

CUSTOM MILL LENGTHS

There is nothing standard about our mill cut lengths. We produce the lengths that you require for your applications. Custom mill lengths from Allied Tube & Conduit allow you to minimize the scrap generated when having to cut standard lengths of pipe products.

QUALITY FABRICATION

In addition to designing our products around your unique requirements, Allied Tube & Conduit offers a range of special fabrication services to provide assistance with product enhancement. Our mission is to reach beyond the supply of just tubular products and enhance our value through parts fabrication and assemblies.

Fabrication Capabilities
Assembly
Bending
Cutting <ul style="list-style-type: none"> • Brand Saw • Cold Saw • Haven • Tube Lasers
Packaging
Punching
Swaging
Welding
Cope/Notch



GATORSHIELD VS PREGALVANIZED

Allied's Gatorshield® and Pre-galvanized tube are two of the most common types of galvanized tube used in the industry. The purpose of these materials is to protect your application from corrosion and provide the strength needed to support it. Gatorshield® has significant advantages over Pre-galvanized tube because of our Flo-Coat® technology.

GATORSHIELD MATERIAL

THE PROCESS

Gatorshield® provides outstanding corrosion protection because of the synergy created between the three coatings. The conversion coating passivates the zinc to slow down the white rust growth process, and the clear topcoat then "seals in" the protection. On the inside of a Gatorshield® tubing is a corrosion resistant zinc based coating applied after the tube is welded, and completely covers the interior.

CORROSION PROTECTION

- 100% coated on inside (ID) and outside diameter (OD)
- 3 layers of protection on OD

MATERIAL & APPEARANCE

- Minimum 50 ksi yield strength*
- Allied's Flo-Coat® process provides tubular product with a smooth, shiny and clean appearance that will not flake or chip during fabrication

PRE-GALVANIZED MATERIAL

THE PROCESS

Pre-galvanized products cannot provide the "sealed" protection that Gatorshield® can. When pre-galvanized steel is formed and welded, the inside weld area is left bare – unprotected since the interior cannot be remetalized. The bare ID weld seam is immediately left to be attacked by all corrosive elements. The exterior of the weld is remetalized, but is still far more susceptible to corrosion than Gatorshield®.

CORROSION PROTECTION

- Bare ID weld seam and varying metalizing process on OD Weld seam
- 2 layers of protection on OD

MATERIAL & APPEARANCE

- Offers only "target" yield and tensile strength
- Manufacturing process can cause small blisters which can result in surface defects in powder coating and flaking in fabrication

	Flo-Coat/ Gatorshield	Pre – Galvanized
Sealed Protection	✓	X
ID coating	100%	0%
Layers of protection	3	2
Strength	Minimum 50 KSI yield	35 - 40 KSI yield
Appearance	Smooth / Shiny / Clean	Rough / Blisters

PICTURED BELOW: COMPETITOR PRE-GALVANIZED TUBE

Pictured below is a perfect example of the importance of our in-line process. The exterior weld area on the Pre-galvanized tube is more susceptible to rust due to their inconsistent re-metalizing process.



RED RUST ON RE-METALIZED WELD SEAM

ALLIED TUBE & CONDUIT QUALITY ASSURANCE

The most important aspect of our Quality Assurance program is to ensure you receive the very best components for your end products. We perform rigorous quality tests throughout the manufacturing process and check the gauge and width to provide you the highest quality tube on the market.

HAVE YOU CHECKED YOUR GAUGE?

Some tube manufacturers claim their tube meets ASTM wall thickness requirements... but unfortunately, their product DOESN'T. This could be critical to your application and a safety risk if it does not meet the job spec. The Allied Advantage is knowing you are purchasing a quality product that meets ASTM requirements.



NO OTHER PRODUCT ON THE MARKET CAN MATCH OUR GATORSHIELD® SUPERIOR STRENGTH, REDUCED WEIGHT, ADVANCED CORROSION PROTECTION AND FORMABILITY.

ACCEPT NO SUBSTITUTE!

Mechanical Tube Specifications

ROUND (in inches) Nominal decimal for ordering gauge																
Outside Diameter	Equiv. Sizes (in)	22 0.028	20 0.035	19 0.042	18 0.049	17 0.058	16 0.065	15 0.072	14 0.083	13 0.095	12 0.109	11 0.120	10 0.134	9 0.148	8 0.165	7 0.180
0.500		0.1413	0.1740	0.2056	0.2362	0.2740	0.3023									
0.625		0.1787	0.2207	0.2618	0.3017	0.3516	0.3891									
0.706	½ EMT	0.2029	0.2511	0.2981	0.3441	0.4018	0.4454									
0.750		0.2161	0.2675	0.3179	0.3672	0.4291	0.4760	0.5218								
0.815	½ IMC	0.2356	0.2918	0.3471	0.4012	0.4694	0.5211	0.5719	0.6495							
0.870		0.2520	0.3124	0.3718	0.4300	0.5035	0.5594	0.6142								
0.875		0.2535	0.3143	0.3740	0.4327	0.5066	0.5628	0.6181								
0.922	¾ EMT	0.2676	0.3319	0.3951	0.4573	0.5357	0.5955	0.6542	0.7444							
0.980		0.2850	0.3535	0.4211	0.4877	0.5717	0.6358	0.6989	0.7959							
0.995		0.2894	0.3592	0.4279	0.4955	0.5810	0.6462	0.7104	0.8092							
1.000		0.2909	0.3611	0.4301	0.4981	0.5841	0.6497	0.7143	0.8136							
1.029		0.2996	0.3719	0.4431	0.5133	0.6020	0.6698	0.7366	0.8394							
1.125		0.3284	0.4078	0.4862	0.5636	0.6616	0.7365	0.8105	0.9245							
1.163	1 EMT		0.4220	0.5033	0.5835	0.6851	0.7629	0.8397	0.9583							
1.187				0.5141	0.5961	0.7000	0.7796									
1.250			0.4546	0.5424	0.6291	0.7391	0.8234	0.9067	1.0354	1.1730	1.3295	1.4496	1.5986			
1.290	1 IMC			0.5603	0.6500	0.7639	0.8512	0.9375	1.0709	1.2136	1.3761	1.5009	1.6559			
1.315	1 NPS		0.4789	0.5716	0.6631	0.7794	0.8686	0.9567	1.0931	1.2390	1.4052	1.5329	1.6917			
1.375			0.5014	0.5985	0.6946	0.8166	0.9103	1.0029	1.1464							
1.500			0.5481	0.6546	0.7600	0.8941	0.9971	1.0991	1.2573	1.4268	1.6208	1.7703	1.9567			
1.510	1¼ EMT		0.5519	0.6591	0.7653	0.9003	1.0041	1.1068	1.2661	1.4370	1.6325	1.7831	1.9711			
1.625					0.8255	0.9716	1.0840	1.1953	1.3682	1.5538	1.7665	1.9306	2.1358			
1.638	1¼ IMC			0.7166	0.8323	0.9796	1.0930	1.2053	1.3797	1.5670	1.7816	1.9473	2.1544			
1.660	1¼ NPS	0.4885	0.6080	0.7264	0.8439	0.9933	1.1083	1.2223	1.3992	1.5893	1.8072	1.9755	2.1859			
1.690							1.1291	1.2453	1.4258	1.6198	1.8422	2.0140	2.2289			
1.740	1½ EMT		0.6379	0.7624	0.8858	1.0429	1.1639	1.2838	1.4702							
1.750			0.6417	0.7669	0.8910	1.0491	1.1708	1.2915	1.4791							
1.764			0.6469	0.7731	0.8983	1.0578	1.1806	1.3023	1.4915							
1.875				0.8230	0.9565	1.1266	1.2577	1.3877	1.5900							
1.883	1½ IMC			0.8266	0.9607	1.1315	1.2632	1.3939	1.5971	1.8158	2.0671	2.2616	2.5054			
1.900	1½ NPS		0.6978	0.8342	0.9696	1.1421	1.2750	1.4070	1.6122	1.8331	2.0869	2.2834	2.5297	2.7719		
1.948			0.7157	0.8558	0.9947	1.1718	1.3084	1.4439	1.6548							
1.968	50 MM		0.7232	0.8647	1.0052	1.1842	1.3223	1.4593	1.6725							
2.000			0.7352	0.8791	1.0220	1.2041	1.3445	1.4839	1.7009	1.9346	2.2034	2.4117	2.6730	2.9301		
2.197	2 EMT						1.4814	1.6356	1.8757	2.1347	2.4330	2.6644	2.9552	3.2418		
2.360	2 IMC				1.2105	1.4273	1.5947	1.7610	2.0203	2.3002	2.6229	2.8735	3.1887	3.4996		
2.375	2 NPS			1.0475	1.2184	1.4366	1.6051	1.7726	2.0336	2.3155	2.6404	2.8927	3.2101	3.5234	3.8981	4.2236
2.500							1.6920	1.8688	2.1445	2.4424	2.7860	3.0531	3.3892	3.7211	4.1186	4.4610
2.857	2½ IMC							2.1436	2.4613	2.8049	3.2020	3.5110	3.9006	4.2860	4.7483	5.1511
2.875	2½ NPS							2.1574	2.4773	2.8232	3.2230	3.5341	3.9264	4.3144	4.7800	5.1857
3.000								2.2536	2.5882	2.9502	3.3686	3.6945	4.1054	4.5122	5.0005	5.4262
3.476	3 IMC							2.6200	3.0105	3.4336	3.9233	4.3051	4.7873	5.2653	5.8401	6.3422
3.500	3 NPS							2.6385	3.0318	3.4579	3.9512	4.3359	4.8217	5.3033	5.8824	6.3883
3.971	3½ IMC								3.4497	3.9363	4.5000	4.9401	5.4963	6.0484	6.7132	7.2946
4.000	3½ NPS								3.4754	3.9657	4.5338	4.9773	5.5379	6.0943	6.7644	7.3504
4.466	4 IMC							3.3820	3.8889	4.4390	5.0768	5.5750	6.2054	6.8316	7.5863	8.2471
4.500	4 NPS							3.4081	3.9191	4.4735	5.1164	5.6187	6.2541	6.8854	7.6463	8.3125
5.000	4½ NPS									4.9813	5.6990	6.2601	6.9704	7.6764	8.5282	9.2746

Typical Mechanical Properties Achieved For Galvanized Tube Products:

 = 40,000 psi yield/45,000 psi tensile

 = 45,000 psi yield/48,000 psi tensile

 = 50,000 psi yield/55,000 psi tensile

Higher mechanical properties available on request

Mechanical Tube Specifications (cont.)

SHAPES - Square tubing is available as round-to-square (RTS), weld-in-corner (WIC) or both. Please inquire for details.																	
	Size	RTS	WIC	20	19	18	17	16	15	14	13	12	11	10	9	8	7
				0.035	0.042	0.049	0.058	0.065	0.072	0.083	0.095	0.109	0.120	0.134	0.148	0.165	0.180
Square	0.625	X		0.2810	0.3333	0.3841	0.4476	0.4954									
	0.709	X		0.3211	0.3813	0.4401											
	0.750	X		0.3406	0.4047	0.4675	0.5463	0.6060	0.6644	0.7535							
	0.813	X		0.3706	0.4407	0.5095	0.5960	0.6617	0.7261	0.8246							
	0.875	X		0.4001	0.4762	0.5509	0.6449	0.7166	0.7869	0.8947							
	0.975	X				0.6175	0.7239	0.8050	0.8849	1.0076							
	1.000	X		0.4597	0.5476	0.6342	0.7436	0.8271	0.9094	1.0359	1.1701	1.3218					
	1.250*	X	X	0.5788	0.6905	0.8009	0.9409	1.0483	1.1543	1.3183	1.4934	1.6927	1.8455				
	1.500*	X	X	0.6979	0.8334	0.9677	1.1383	1.2695	1.3993	1.6007	1.8166	2.0635	2.2538				
	1.625		X					1.3801	1.5218	1.7419	1.9782	2.2490	2.4580				
	1.750*		X					1.4906	1.6443	1.8831	2.1398	2.4344	2.6621				
	1.875		X									2.6198					
	2.000*	X	X					1.7118	1.8893	2.1655	2.4631	2.8053	3.0704	3.4031	3.7304	4.1208	4.4586
	2.188		X											3.7460			
	2.250*	X	X						2.1343	2.4479	2.7863	3.1762	3.4787	3.8590			
	2.500*	X	X						2.3792	2.7303	3.1095	3.5470	3.8870	4.3150	4.7376	5.2436	
	3.000	X						2.5964	2.8692	3.2951	3.7560	4.2888	4.7036	5.2268	5.7447	6.3664	6.9084
	4.000	X								4.4248	5.0490	5.7723	6.3368	7.0506	7.7590	8.6121	9.3582
Flat Sided Oval	0.750 x 1.000			0.3319	0.3951	0.4573	0.5357	0.5955									
	1.500 x 1.000			0.4789	0.5716	0.6631	0.7794	0.8686									
	1.750 x 1.125			0.5519	0.6591	0.7653	0.9003	1.0041	1.1068	1.2661							
	2.000 x 1.094			0.6080	0.7264	0.8439	0.9933	1.1083									
	2.250 x 1.313			0.6978	0.8342	0.9696	1.1421	1.2750									
	2.375 x 1.625					1.1251	1.3262	1.4814									
Rectangle	0.625 x 1.125			0.4001	0.4762	0.5509	0.6449	0.7166									
	0.750 x 1.500			0.5192	0.6191	0.7176	0.8423	0.9377	1.0319	1.1771							
	0.750 x 2.250			0.6979													
	0.875 x 1.917			0.6483	0.7740	0.8983	1.0562	1.1775									
	1.000 x 1.750			0.6383	0.7620	0.8843	1.0396	1.1589									
	1.000 x 2.000			0.6979	0.8334	0.9677	1.1383	1.2695	1.3993	1.6007							
	1.500 x 2.000			0.8169	0.9763	1.1344	1.3356	1.4906	1.6443	1.8831	2.1398	2.4344	2.6621				
	1.500 x 2.500				1.1192	1.3011	1.5330	1.7118	1.8893	2.1655	2.4631	2.8053	3.0704	3.4031			
	1.500 x 3.000										2.7863	3.1762	3.4787				
	1.500 x 3.500					1.6345	1.9277	2.1541	2.3792	2.7303	3.1095	3.5470	3.8870	4.3150			
	1.540 x 3.110											3.2874					
	1.625 x 3.000									2.5185	2.8671	3.2689	3.5808				
	2.000 x 3.000							2.1541	2.3792	2.7303	3.1095	3.5470	3.8870	4.3150	4.7376	5.2436	5.6835
	2.000 x 4.000									3.2951	3.7560	4.2888	4.7036	5.2268	5.7447	6.3664	
	2.000 x 5.000									3.8599	4.4025	5.0305	5.5202	6.1387	6.7519	7.4892	
	2.360 x 4.720										4.4542	5.0899	5.5855	6.2117	6.8324		
	3.000 x 4.000										4.4025	5.0305	5.5202	6.1387	6.7519	7.4892	8.1333
Octagon	4.783											5.7505	6.3159	7.0316	7.7429	8.6006	
* Also available as Square-Fit®																	

Mechanical Tube Specifications (cont.)

Carbon Steel Typical Chemistry:

	1008 Steel (16 gauge and lighter)	1010 Steel (15 gauge and heavier)	1015 Steel (15 gauge and heavier)	"1022 Steel (15 gauge and heavier)"
Carbon max. %	0.100	0.130	0.180	0.230
Manganese max. %	0.500	0.600	0.600	1.000
Phosphorus max. %	0.030	0.030	0.030	0.030
Sulphur max. %	0.035	0.035	0.035	0.035

Tolerances:

Round	Tolerance	Length	Tolerance
0.500 thru 1.510	± 0.005	Under 5' *	± 1/16"
1.625 thru 2.000	± 0.010	5' - 15'	± 1/8"
2.197 thru 4.500	± 0.015	16' - 19'	± 1/4"
5.000	± 0.020	20' - 40' **	± 1/2"
Square & Rectangle	± 0.010	*Must be cut off-line. Closer length tolerances available upon request	
Except:			
1x1 & Smaller	± 0.005	**sizes 2.875 – 5.000 can be run up to 40' long	
1.500 x 3.000	± 0.020		
2.000 x 3.000	± 0.015		
2.000 x 4.000	± 0.015		
2.000 x 5.000	± 0.030		
2.360 x 4.720	± 0.030		
3.000 x 3.000	± 0.015		
3.000 x 4.000	± 0.030		
4.000 x 4.000	± 0.020		
Oval Sizes	± 0.015		

All steel tube products...

are manufactured per ASTM-A500 dimensions. Inquire as to compliance to specific grades. Please inquire about our ability to meet ASTM-A513 and other tube specifications.



TECTRON MECHANICAL STEEL TUBING

Customers rely on us as a resource. We work in tandem on new product introductions and even aid with design. Tectron's fabrication capabilities make us a one-stop shop. In addition to designing our products around unique requirements, we offer a range of special fabrication services to provide assistance and product enhancement in the form you desire. When you fabricate our tube it remains consistent – that's the Tectron Tube difference!

Continuous investment in state-of-the-art manufacturing technology, such as our high-frequency welder and non-destructive testing equipment, keep our product and operations running efficiently and consistent. We have the service advantage and flexibility with our in-house slitter, to accommodate demand changes at a moment's notice.

Our tube can be purchased raw with a rust preventable coating or Qwik-Coat® lacquer topcoat. Other coating options include pre-galvanized and aluminized. One of the many advantages of Tectron Tube is our ability to control the location of the weld and hold it in place. Choose flash-in, flash-rolled or flash-cut depending on your application requirements.

"Flash" is produced when the edges of the steel strip are passed through the welder and brought to fusion temperature, a weld seam is formed lengthwise down the tube. A small amount of molten, metal is squeezed out of the weld seam during this process on the OD (outside diameter) and the ID (inside diameter) of the tube. This excess metal is a "weld flash". The weld flash on the OD is removed to form a uniform outside surface. The weld flash on the inside of the tube can be specified as follows:

- **Flash-In:** The weld flash remains in the as-welded condition, and the height of the weld seam inside the tube will be no more than the wall thickness or $\frac{3}{32}$ ", whichever is less.
- **Flash-Rolled:** The ID weld flash can be rolled back up into the weld area just after welding. The seam can be controlled to varying heights depending on the OD and gauge. This is the most common method of flash controlling the ID seam. The minimum OD that can be flash rolled is 0.875".
- **Flash-Cut:** The weld bead is mechanically removed.

FABRICATION SERVICES

CNC BENDER

The CNC machine has the ability to import files from 3D CAD directly to bender controls and reduces program development time. Bend multi radii in same part (draw and push rolling) offering more flexibility in bending tubes. Small or large volume, simple or complex, the bender will save time, space and money.

- Round OD Max: 3.000" 12 gauge
- Square OD Max: 2.250" 12 gauge
- 25% faster than hydraulic bending
- Allows for automated parts - all planes
- Improves productivity and efficiency - reduced cycle times
- Improved repeatability

TUBE LASER BLM LT722

This is a complex machine that can cut and/or etch designs into tubular and open shape products. The laser is not limited to holes, slots and/or straight end cuts. There is no hard tooling involved in running products so this opens up the possibilities of shorter runs that can be cost effective.

- Round OD Max: 6.000"
- Square OD Max: 4"sq.
- Minimum WIP Length: 132"
- Maximum WIP Length: 324"
- Maximum Finished Length: 252"
- Maximum Wt/Ft: 10 lbs

TECTRON TUBING SPECIFICATIONS

Round (in) Nominal decimal for ordering gauge													
Outside Diameter	Fraction Equiv. Sizes (in)	22	20	19	18	17	16	15	14	13	12	11	10
		0.028	0.035	0.042	0.049	0.058	0.065	0.072	0.083	0.095	0.109	0.120	0.134
0.500	1/2	0.1413	0.1740	0.2056	0.2362	0.2740	0.3023						
0.555			0.1946	0.2303	0.2650	0.3081	0.3405						
0.562			0.1972	0.2335	0.2687	0.3125	0.3453						
0.625	5/8		0.2207	0.2618	0.3017	0.3516	0.3891	0.4256	0.4809				
0.706			0.2511	0.2981	0.3441	0.4018	0.4454	0.4880	0.5528				
0.745			0.2656	0.3156	0.3646	0.4260	0.4725	0.5180	0.5874				
0.750	3/4		0.2675	0.3179	0.3672	0.4291	0.4760	0.5218	0.5918	0.6652	0.7469		
0.787			0.2814	0.3345	0.3866	0.4520	0.5017	0.5503	0.6246	0.7028	0.7900		
0.813	13/16		0.2909	0.3459	0.3999	0.4678	0.5194	0.5699	0.6473	0.7287	0.8197		
0.840			0.3012	0.3583	0.4143	0.4849	0.5385	0.5911	0.6717	0.7566	0.8518		
0.875	7/8		0.3143	0.3740	0.4327	0.5066	0.5628	0.6181	0.7027	0.7921	0.8926	0.9685	
0.937			0.3375	0.4018	0.4651	0.5450	0.6059	0.6658	0.7577	0.8551	0.9648	1.0480	
0.995			0.3592	0.4279	0.4955	0.5810	0.6462	0.7104	0.8092	0.9140	1.0324	1.1225	
1.000	1		0.3611	0.4301	0.4981	0.5841	0.6497	0.7143	0.8136	0.9191	1.0382	1.1289	
1.033			0.3734	0.4449	0.5154	0.6045	0.6726	0.7397	0.8429	0.9526	1.0767	1.1712	
1.050			0.3798	0.4526	0.5243	0.6151	0.6844	0.7527	0.8580	0.9699	1.0965	1.1930	
1.063	1-1/16		0.3844	0.4582	0.5309	0.6228	0.6931	0.7624	0.8691	0.9825	1.1110	1.2090	
1.125	1-1/8		0.4078	0.4862	0.5636	0.6616	0.7365	0.8105	0.9245	1.0460	1.1839	1.2892	
1.250	1-1/4		0.4546	0.5424	0.6291	0.7391	0.8234	0.9067	1.0354	1.1730	1.3295	1.4496	
1.313	1-5/16		0.4780	0.5704	0.6618	0.7778	0.8668	0.9548	1.0909	1.2364	1.4023	1.5297	
1.315			0.4789	0.5716	0.6631	0.7794	0.8686	0.9567	1.0931	1.2390	1.4052	1.5329	
1.375	1-3/8		0.5014	0.5985	0.6946	0.8166	0.9103	1.0029	1.1464	1.2999	1.4752	1.6099	
1.438	1-7/16		0.5247	0.6266	0.7273	0.8553	0.9537	1.0510	1.2018	1.3634	1.5480	1.6901	
1.500	1-1/2		0.5481	0.6546	0.7600	0.8941	0.9971	1.0991	1.2573	1.4268	1.6208	1.7703	
1.563	1-9/16		0.5715	0.6827	0.7928	0.9328	1.0405	1.1472	1.3127	1.4903	1.6936	1.8504	
1.600			0.5855	0.6995	0.8124	0.9561	1.0666	1.1761	1.3460	1.5284	1.7373	1.8985	
1.625	1-5/8		0.5949	0.7107	0.8255	0.9716	1.0840	1.1953	1.3682	1.5538	1.7665	1.9306	
1.660			0.6080	0.7264	0.8439	0.9933	1.1083	1.2223	1.3992	1.5893	1.8072	1.9755	
1.690			0.6192	0.7399	0.8596	1.0119	1.1291	1.2453	1.4258	1.6198	1.8422	2.0140	
1.750	1-3/4				0.8910	1.0491	1.1708	1.2915	1.4791	1.6807	1.9121	2.0910	
1.875	1-7/8				0.9565	1.1266	1.2577	1.3877	1.5900	1.8077	2.0578	2.2513	
1.900					0.9696	1.1421	1.2750	1.4070	1.6122	1.8331	2.0869	2.2834	
2.000	2				1.0220	1.2041	1.3445	1.4839	1.7009	1.9346	2.2034	2.4117	2.6730
2.125	2-1/8				1.0874	1.2816	1.4314	1.5802	1.8118	2.0616	2.3491	2.5720	2.8520
2.195					1.1241	1.3250	1.4800	1.6340	1.8739	2.1327	2.4306	2.6618	2.9523
2.250	2-1/4				1.1529	1.3591	1.5182	1.6764	1.9227	2.1885	2.4947	2.7324	3.0311
2.255					1.1555	1.3622	1.5217	1.6802	1.9272	2.1936	2.5005	2.7388	3.0382
2.375					1.2184	1.4366	1.6051	1.7726	2.0336	2.3155	2.6404	2.8927	3.2101
2.500	2-1/2				1.2839	1.5141	1.6920	1.8688	2.1445	2.4424	2.7860	3.0531	3.3892
3.000	3						2.0394	2.2536	2.5882	2.9502	3.3686	3.6945	4.1054

Our capabilities are continuously evolving; additional sizes will soon be available.

For information on those and other sizes not listed please contact your sales representative.

For all rectangle, oval, and 'D' shaped sizes, the weld is located on the first side listed. Our capabilities are continuously evolving; additional sizes will soon be available.

At Tectron Tube, we stock a wide variety of Hot rolled, Cold rolled, and Pre-galvanized steel grades and gauges formulated to meet customer specific chemistry and/or mechanical property requirements.

For information on those and other sizes not listed please contact your sales representative.

Other Specification Parameters

• ID Flash:

Flash In: Not to exceed wall thickness or 3/32", whichever is less.

Flash Rolled: Controlled to 0.005" or 0.010". Minimum OD requirement is 0.875." Flash Cut: Minimum OD requirement is 1.250" to flash cut.

TECTRON TUBING SPECIFICATIONS

Shapes													
	Size	"Fraction Equiv. Sizes (in)"	20	19	18	17	16	15	14	13	12	11	10
			0.035	0.042	0.049	0.058	0.065	0.072	0.083	0.095	0.109	0.120	0.134
SQUARE	0.500	½	0.2215	0.2618	0.3008	0.3489	0.3848	0.4194	0.4711				
	0.750	¾	0.3406	0.4047	0.4675	0.5463	0.6060	0.6644	0.7535	0.8469	0.9509	1.0289	
	0.875	⅞	0.4001	0.4762	0.5509	0.6449	0.7166	0.7869	0.8947	1.0085	1.1364	1.2331	
	0.890		0.4073	0.4847	0.5609	0.6568	0.7298	0.8016	0.9116	1.0279	1.1586	1.2576	
	1.000	1	0.4597	0.5476	0.6342	0.7436	0.8271	0.9094	1.0359	1.1701	1.3218	1.4372	
	1.250	1-¼	0.5788	0.6905	0.8009	0.9409	1.0483	1.1543	1.3183	1.4934	1.6927	1.8455	
	1.500	1-½	0.6979	0.8334	0.9677	1.1383	1.2695	1.3993	1.6007	1.8166	2.0635	2.2538	
	1.585				1.0243	1.2054	1.3447	1.4826	1.6967	1.9265	2.1896	2.3926	
	1.750	1-¾			1.1344	1.3356	1.4906	1.6443	1.8831	2.1398	2.4344	2.6621	2.9472
	2.000	2			1.3011	1.5330	1.7118	1.8893	2.1655	2.4631	2.8053	3.0704	3.4031
	2.500	2-½					2.1541	2.3792	2.7303	3.1095	3.5470	3.8870	4.3150
Nominal Sizes													
RECTANGLE	0.500 x 1.500		0.4597	0.5476	0.6342	0.7436	0.8271	0.9094	1.0359				
	0.750 x 1.500		0.5192	0.6191	0.7176	0.8423	0.9377	1.0319	1.771	1.3317	1.5072	1.6414	
	1.000 x 1.500			0.6905	0.8009	0.9409	1.0483	1.1543	1.3183	1.4934	1.6927	1.8455	
	1.000 x 2.000			0.8334	0.9677	1.1383	1.2695	1.3993	1.6007	1.8166	2.0635	2.2538	
	1.250 x 0.500		0.4001	0.4762	0.5509	0.6449	0.7166	0.7869	0.8947	1.0085	1.1364	1.2331	
	1.250 x 0.750				0.6342	0.7436	0.8271	0.9094	1.0359	1.1701	1.3218	1.4372	
	1.250 x 2.000		0.7574	0.9049	1.0510	1.2370	1.3801	1.5218	1.7419	1.9782	2.2490	2.4580	2.7192
	1.500 x 0.750		0.5192	0.6191	0.7176	0.8423	0.9377	1.0319	1.1771	1.3317	1.5072	1.6414	
	1.500 x 2.000				1.1344	1.3356	1.4906	1.6443	1.8831	2.1398	2.4344	2.6621	2.9472
	1.500 x 2.500				1.3011	1.5330	1.7118	1.8893	2.1655	2.4631	2.8053	3.0704	3.4031
	1.500 x 3.000								2.4479	2.7863	3.1762	3.4787	3.8590
	1.920 x 0.890				0.9043	1.0633	1.1854	1.3062	1.4934				
	2.000 x 1.000			0.8334	0.9677	1.1383	1.2695	1.3993	1.6007	1.8166	2.0635	2.2538	
	2.000 x 1.250		0.7574	0.9049	1.0510	1.2370	1.3801	1.5218	1.7419	1.9782	2.2490	2.4580	2.7192
	2.000 x 3.000						2.1541	2.3792	2.7303	3.1095	3.5470	3.8870	4.3150
	2.250 x 0.750		0.6979	0.8334	0.9677	1.1383	1.2695	1.3993	1.6007	1.8166	2.0635	2.2538	
	2.500 x 1.500				1.3011	1.5330	1.7118	1.8893	2.1655	2.4631	2.8053	3.0704	3.4031
		3.000 x 1.000					1.7118	1.8893	2.1655	2.4631	2.8053	3.0704	3.4031
OVAL	0.630 x 1.358	FSO	0.3585	0.4271	0.4946	0.5799	0.6450	0.7091	0.8077				
	0.735 x 0.985	FSO	0.3375	0.4018	0.4651	0.5450	0.6059	0.6658	0.7577				
	1.500 x 0.750	EO	0.4075	0.4859	0.5632	0.661	0.7359	0.8098	0.9238	1.0452	1.1829		
	1.750 x 1.125	FSO			0.7600	0.8941	0.9971	1.0991	1.2573	1.4268	1.6208	1.7703	
	1.968 x 1.181	FSO	0.5755	0.6875	0.7984	0.9395	1.0480	1.1555	1.3223	1.5013	1.7062	1.8643	
D	1.910 x 1.227				0.8910		1.0491	1.1708	1.2915	1.4791			
HEX			0.2907	0.3457	0.3997	0.4675	0.5191	0.5696	0.6468	0.7281	0.8191		

Tolerances Achieved:

Standard OD Tolerances						Length Tolerances	
Round	Hot Rolled	Cold Rolled	Shapes			Length (in)	Tolerance
.500–.625	±.0035	±.003	0.500	±.004	±.004	48-120	±1/16
>.625–1.125	±.0035	±.0035	.750–1.125	±.005	±.005	>120-180	±1/8
>1.125–2.000	±.005	±.005	>1.125–1.500	±.006	±.006	>180	±3/16
>2.000–2.500	±.006	±.006	>1.500–2.000	±.008	±.008	Closer length tolerances available upon request	
>2.500–3.000	±.008	±.008	>2.000-2.500	±.010	±.010		

• Cut length:

Tectron Tube has extensive in line and secondary cutting, de-burring, and end chamfering capabilities. Please inquire regarding your specific end finish requirements.

• Eddy Current Testing:

All steel tube products are manufactured per ASTM-A513, Types 1 and 2. Please inquire about our ability to meet other ASTM specifications

YOUR SOLUTIONS PROVIDER



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