



# **& Fence Framework Perimeter Security Products**

# Table of Contents

Allied Fence  
Framework &  
Perimeter  
Security Products

SS 40® GALVANIZED FENCE FRAMEWORK	3
ROLL-FORMED RAIL & “C” SECTIONS	6
RAZOR-RIBBON® BARBED TAPE <i>DOMESTIC APPLICATIONS</i>	7
RAZOR-RIBBON® BARBED TAPE <i>MILITARY FORCE PROTECTION</i>	10
HATBOX RAPID DEPLOYMENT UNIT	13
FENCE PICKET	14
INSTALLATION ACCESSORIES	15

# SS 40<sup>®</sup>

## Galvanized Fence Framework

*Allied Tube & Conduit, with an engineering breakthrough in pipe manufacturing and corrosion resistant coating, has developed the most specified and the most requested framework in the fencing industry.*

*SS 40 fence framework is manufactured from cold-formed steel which provides a high-yield/tensile strength, followed by a uniform triple layer of corrosion protection. The coating consists of zinc, a conversion coating, and a clear organic topcoat applied in-line by Allied's patented continuous Flo-Coat<sup>®</sup> process.*

*The high-yield strength steel and the triple-coat of locked-in protection, results in pipe that not only out-performs Schedule 40 pipe in strength and corrosion resistance, but maintains its lustrous appearance in all climates and under the most severe atmospheric conditions. SS 40 fence framework is clearly the industry leader.*



### 1. SCOPE

This specification covers galvanized steel fence pipe as manufactured by the Allied Tube & Conduit patented Flo-Coat process.

### 2. MATERIALS

#### 2.1 Steel

Steel strip used in the manufacture of pipe shall conform to ASTM A1011 and will meet all performance criteria set forth in this standard/specification.

#### 2.2 Zinc

Zinc used in Allied's Flo-Coat process conforms to ASTM B 6 High Grade and Special High Grade Zinc.

#### 2.3 Conversion Coating

The conversion coating is applied over the surface of the zinc to enhance corrosion resistance.

#### 2.4 Organic Clear Coating

Organic clear coating, applied over the conversion coating, is manufactured from high grade raw materials.

#### 2.5 Internal Coating

The internal zinc-rich based coating shall have a minimum zinc powder loading of 90% by weight and have the capability of producing galvanic protection.

### 3. WEIGHT OF COATINGS

#### 3.1 Zinc

Weight of zinc shall be 1.0 oz./ft.<sup>2</sup> ± 0.1 oz./ft.<sup>2</sup> and shall be determined by the method described in ASTM A 90.

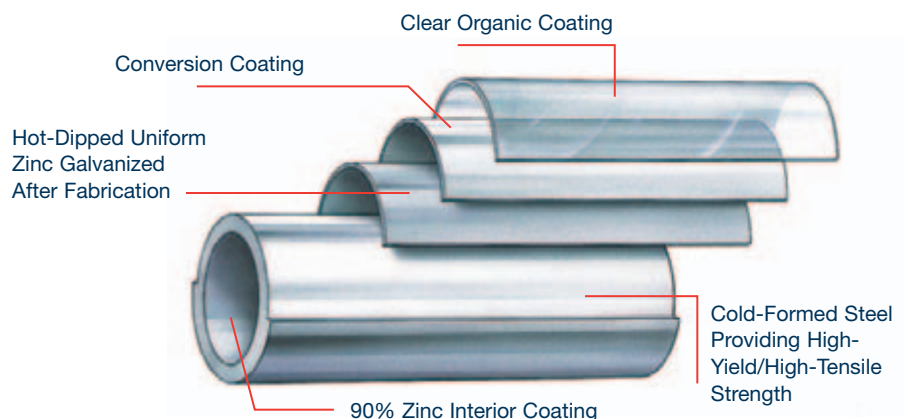
#### 3.2 Conversion Coating

Conversion coating shall be 30 micrograms/in.<sup>2</sup> ± 15 micrograms/in.<sup>2</sup> and shall be determined by a strip and weigh method utilizing an atomic absorption spectrophotometer or X-Ray fluorescence spectrograph.

#### 3.3 Organic Clear Coating

Thickness of the clear coating shall be a nominal .5 mils ± .2 mils and determined by measurement with a suitable magnetic or eddy current coating thickness tester. Thickness of clear coating is determined by taking the difference between the thickness of zinc and the total thickness of the clear coating and zinc. The thickness tester shall be standardized on the steel surface after removing the zinc prior to making measurements.

## Flo-Coat<sup>®</sup> Process



# SS 40<sup>®</sup> Galvanized Fence Framework

## TECHNICAL SPECIFICATIONS

### 4. STRENGTH CHARACTERISTICS

#### 4.1 Bending Strength

The strength of line, end, corner, and pull posts shall be determined by the use of 4 foot or 6 foot cantilevered beam test. The top rail shall be determined by a 10 foot free-supported beam test (see Table 1).

#### 4.2 Bending Moment

An alternative method of determining pipe strength is by the calculation of bending moment (see Table 1). Conformance with this specification can be demonstrated by measuring the yield/tensile strength of a randomly selected piece of pipe from each lot and calculating the section modulus. The yield/tensile strength shall be determined according to the methods described in ASTM E 8. For materials under this specification, the 0.2 offset method shall be used in determining yield strength.

### 5. CORROSION RESISTANCE

#### 5.1 Salt Spray

- a. Exterior Surface. The exterior clear coated surface of the pipe shall have a demonstrated ability to resist 1,000 hours of exposure to salt fog with a maximum of 5% red rust when conducted in accordance with ASTM B 117.
- b. Interior Surface. The interior zinc-rich coated surface shall have a demonstrated ability to withstand 650 hours of exposure to salt fog with a maximum of 5% red rust when conducted in accordance with ASTM B 117.

#### 5.2 Humidity

- a. Exterior Surface. The clear coated exterior surface of the pipe shall have a demonstrated ability to resist 500 hours of exposure to 100% relative humidity without blistering and peeling when conducted in accordance with ASTM D 4585. (D 2247).



#### 5.3 Weatherometer

- a. Exterior Surface. The clear exterior coating shall have a demonstrated ability to withstand exposure for 500 hours without failure at a black panel temperature of 145°F. (63°C.) when tested in accordance with ASTM G 26, Xenon Type BH apparatus, or ASTM G 23 (Carbon Arc) Type HH apparatus.

**TABLE 1**

**Physical Dimensions and Strength Calculations SS 40 Pipe Sizes**

Fence Industry	Decimal O.D. Equivalent		Pipe Wall Thickness		Weight		Section Modulus x inches <sup>3</sup>	Min. Yield Strength psi	Max Bending = Moment lb. in.	Calculated Load (lbs.)		
	inches	(mm)	inches	(mm)	lb./ft.	(kg/m)				10' Free Supported	Cantilever	
										4'	6'	
1-3/8"	1.315	33.40	.104	2.64	1.35	2.01	.1111 x	50,000	= 5555	185	116	77
1-5/8"	1.660	42.16	.111	2.82	1.84	2.74	.1961 x	50,000	= 9805	327	204	136
1-7/8"	1.900	48.26	.120	3.05	2.28	3.39	.2810 x	50,000	= 14050	468	293	195
2-3/8"	2.375	60.33	.130	3.30	3.12	4.64	.4881 x	50,000	= 24405	814	508	339
2-7/8"	2.875	73.03	.160	4.06	4.64	6.90	.8778 x	50,000	= 43890	1463	914	610
3-1/2"	3.500	88.90	.160	4.06	5.71	8.50	1.3408 x	50,000	= 67040	2235	1397	931
4"	4.000	101.60	.160	4.06	6.56	9.76	1.7819 x	50,000	= 89095	2970	1856	1237

### CERTIFICATION

*"Made in U.S.A." is proudly displayed on every length of SS 40 pipe. Allied will certify that all SS 40 fence pipe is manufactured in the U.S.A. and is in compliance with applicable Federal, State and local specifications.*

# SS 40<sup>®</sup> Galvanized Fence Framework

## T E C H N I C A L   S P E C I F I C A T I O N S



### SPECIFYING AGENCIES

Partial list of agencies which have approved SS 40 fence pipe.

- (AASHTO) American Associations of State Highway and Transportation Officials M181-98
- Federal Specifications RR-F-191/2D (Chain Link Fence Gates)
- Federal Specifications RR-F-191/3D (Chain Link Fence Posts, Top Rails and Braces)
- UFGS 02821 (supersedes CEGS 02831)
- Department of Transportation Federal Aeronautics Administration AC 150/5370-10A Item F-162
- U.S. Department of Justice – Federal Bureau of Prisons
- ASTM Specification F1043-00 Standard Specification for Strength and Protective Coatings
- American Institute of Architects (AIA) MASTERSPEC
- CLFMI Chain Link Fence Manufacturers Institute

### PERFORMANCE

For nearly forty years, SS 40<sup>®</sup> fence pipe has disproven the common belief that greater weight equals greater strength. It is 20% lighter than Schedule 40 in gauge and weight, yet is as much as 33% stronger.

The superior strength of SS 40 fence pipe is attributable to two key factors:

1. Cold rolled steel with a minimum of 50,000 psi yield strength.
2. The tempering effect of cold water quenching following the hot-dip galvanizing.

Exceptional corrosion resistance is achieved through Allied's patented Flo-Coat<sup>®</sup> process. A uniform layer of zinc is applied, followed by a conversion coating, and finally a clear organic topcoat. The triple-coating minimizes oxidation and locks-in the corrosion protection to preserve a "like new" appearance.

It is the combination of the three coatings that produces a "synergistic" effect which results in greater corrosion resistance than the sum of the individual coatings.

The triple-coating, uniformly applied during the Flo-Coat<sup>®</sup> process, gives SS 40 fence pipe a highly lustrous appearance that will fabricate without flaking and remain maintenance-free.

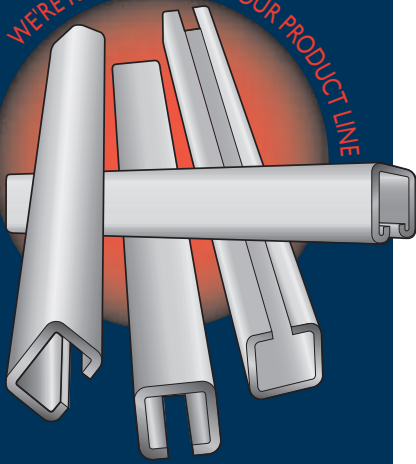
When performance is the only true criterion, SS 40 fence pipe is the obvious choice.

### AVAILABILITY

SS 40 fence pipe is manufactured by Allied Tube & Conduit in Harvey, IL, Philadelphia, PA, Phoenix, AZ and Pine Bluff, AR. A full inventory of standard lengths is maintained at all locations to ensure fast delivery and to meet even the strictest schedules. If special lengths are required, ask about Allied's cut-to-length capabilities. Made-to-order lengths will help reduce fabrication time, eliminate wasteful drops and additional handling costs. Our nationwide distribution network and coast-to-coast shipping system helps Allied retain its position as Number One Supplier to the fence industry.



WE'RE ROUNDING OUT OUR PRODUCT LINE



# Roll-Formed Rail & "C" Sections

"C" SECTION FENCE FRAMEWORK IS ACCEPTED BY ALL MAJOR SPECIFYING BODIES INCLUDING:

- ASTM F1043
- AASHTO M181
- FAA-F162
- CLFMI
- RR-F-191/3D Federal Specification
- UFGS 02821 (supersedes CEGS 02831)

## PROTECTIVE COATING

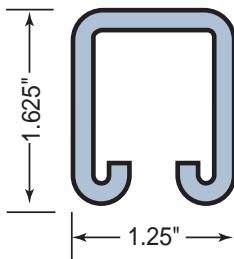
All sections are coated in accordance with ASTM A 123 with a 2.0 oz/ft.<sup>2</sup> minimum average zinc coating per ASTM F 1043, Type A.

Allied Tube can co-load roll-formed sections with any of our other products.

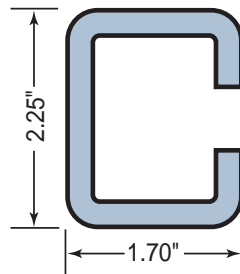
Just Ask . . . Round, Square, and "C" Section, all on one truck.

$$\text{POSTS} = \frac{\text{Yield Strength} \times \text{Section Modulus}}{\text{Height in Inches}}$$

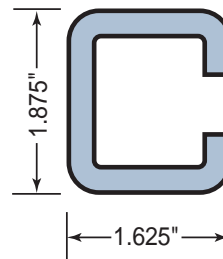
$$\text{RAIL} = \frac{4 \times \text{Yield Strength} \times \text{Section Modulus}}{\text{Distance Between Supports in Inches}}$$



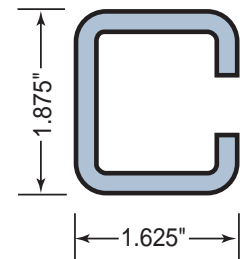
**Rail**  
RAIL SECTION  
1.625" x 1.25"



**Senior "C"**  
LINE POST  
2.25" x 1.70"



**Junior "C"**  
LINE POST  
1.875" x 1.625"



**Junior "C" Lite**  
LINE POST  
1.875" x 1.625"

### PHYSICAL PROPERTIES CHART

	Outside Dimensions (inches)	Material Thickness (inches)	Weight Per Foot Galvanized (pounds)	Section Modulus on Critical Axis (inches <sup>3</sup> )	Minimum Yield Strength PSI	Bending Strength* (pounds)
<b>LINE POSTS</b>						
Senior "C"	2.25" x 1.70"	.121	2.78	.506	50,000	351
Junior "C"	1.875" x 1.625"	.121	2.40	.395	50,000	274
Junior "C" Lite	1.875" x 1.625"	.105	1.85	.360	50,000	250
<b>RAIL</b>						
Rail Section	1.625" x 1.25"	.080	1.35	.158	50,000	263

\* **Bending Strength** for posts is the amount of concentrated force required 6' above ground for a permanent set; for top rail section, it is the concentrated force required at midpoint for a permanent set when posts are 10' apart.

# Razor Ribbon<sup>®</sup> Brand

## Barbed Tape Obstacles

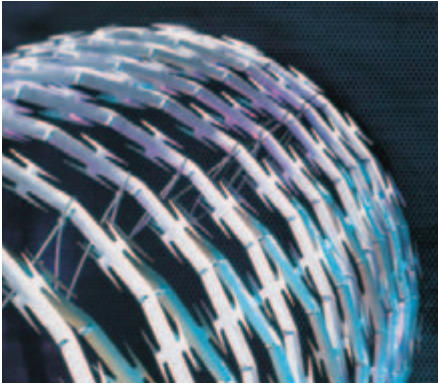
*From industrial to ultra-maximum security perimeters, Allied Tube & Conduit has the correct combination of barbed tape products. With years of experience, we can be relied upon to provide the service and expertise needed for your security requirements. From the design and specification stage through fabrication of the highest caliber barbed tape obstacles, we provide unequalled value in professional services and product quality.*

*Ultra-Maximum Security — the combination of Instabarrier barbed tape and Detainer Hook Barb barbed tape within the same installation can yield truly awesome results. With extensive use in correctional institutions, these barbed tape obstacles are the most highly rated anti-intrusion security barriers.*



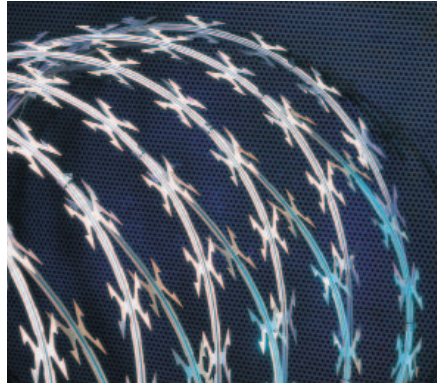
# Razor Ribbon® Products

S E L E C T I O N G U I D E



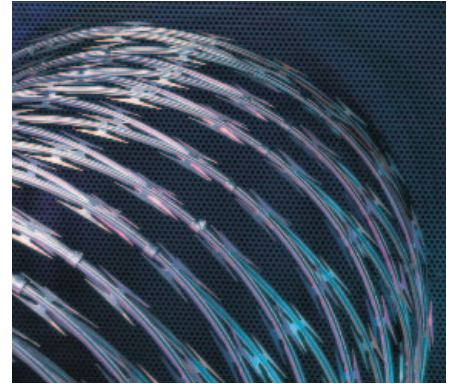
## INSTABARRIER®

InstabARRIER non-reinforced barbed tape is characterized as being the most versatile of all barbed tape products. Designed for both temporary and permanent use, it permits rapid recovery and reuse.



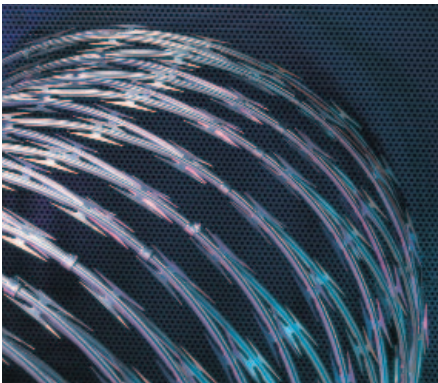
## DETAINDER HOOK BARB®

Detainer Hook Barb barbed tape obstacle is the premier physical perimeter barrier available in the world. The newest, most effective security product being specified today, Detainer Hook Barb barbed tape offers unequalled physical protection and psychological deterrence.



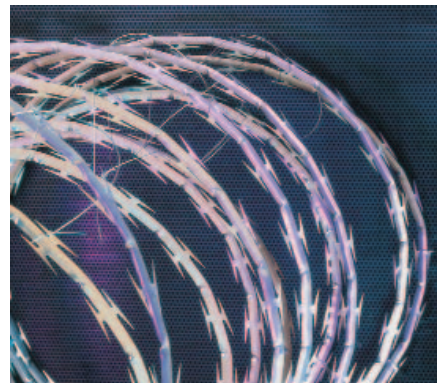
## SUPERMAZE® AND NATO BARRIER

SuperMAZE and NATO Barrier barbed tape products are designed for high density maximum security applications. NATO Barrier barbed tape was given its name after being successfully installed around several extremely sensitive NATO facilities in Northern Europe.



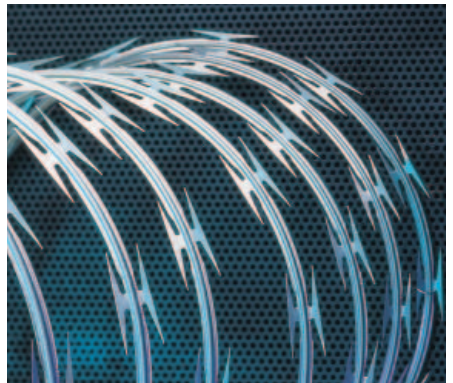
## MAZE®

Maze barbed tape obstacle is the original long-barb, wire-reinforced concertina. Maze barbed tape is used in more minimum to medium security applications around the world than any other barbed tape.



## GENERAL PURPOSE BARBED TAPE OBSTACLE TYPE II

GPBTO Type II barbed tape is a double coil, non-reinforced product made from spring quality austenitic stainless steel. Originally designed by the U.S. Military as an entanglement obstacle.








## RAZOR RIBBON® HELICAL

Razor Ribbon, the registered trademark of Allied Tube & Conduit, is the name that made barbed tape famous throughout the world. Razor Ribbon Helical barbed tape is the barbed tape most recommended for private and industrial use. It has the same long barb features as Maze, SuperMaze, and NATO Barrier barbed tape, but the loops are not clipped together in a concertina fashion, allowing the barbed tape to be installed with a variety of loop spacing options, depending upon the level of security required.

# Razor Ribbon® Products


## SELECTION GUIDE

RAZOR RIBBON® HELICAL	MAZE®	SUPERMAZE®	NATO BARRIER®	DETAINER HOOK BARB®
TAPE MATERIAL:	430 Stainless Steel		1" wide prior to forming (DHB 1.375")	
CORE MATERIAL:	Galvanized or Stainless Steel		.098" diameter	
BARB LENGTH / SPACING:	2.4 (± .10") tip/tip		4" on center	

PRODUCT NAME	DIAMETER		LOOPS	CLIPS	LOOP SPACING		LENGTH PER ROLL		WEIGHT PER ROLL	
	(inches)	(mm)			(INCHES)	(MM)	(FT)	(M)	(lbs)	(kgs)
<b>RAZOR RIBBON® HELICAL</b> 	18	450	33	-	18	450	50	15	11	5
	24	600	33	-	18	450	50	15	17	7.7
	30	750	33	-	18	450	50	15	22	10
<b>MAZE®</b> 	18	450	31	3	12	300	15	4.5	11	5
	24	600	31	3	16	400	20	6	17	7.7
	30	750	31	3	16	400	20	6	22	10
	36	900	31	3	16	400	20	6	25	11
	24/30	600/750	31/31	3	16	400	20	6	39	18
<b>SUPERMAZE®</b> 	30	750	51 (81)	5	12	300	25 (40)	7.5 (12)	32 (52)	15 (24)
	36	900	51 (81)	5	12	300	25 (40)	7.5 (12)	37 (59)	17 (27)
	40	1000	51 (81)	5	12	300	25 (40)	7.5 (12)	44 (68)	20 (31)
<b>NATO BARRIER®</b> 	40	1000	51 (81)	7	12	300	25 (40)	7.5 (12)	44 (68)	20 (31)
	60	1500	51 (101)	9	12	300	25 (50)	7.5 (15)	65 (127)	30 (58)
<b>DETAINER HOOK BARB®</b> 	25	635	31	3	16	400	20	6	19	9
	31	787	31 (51)	3 (5)	16 (12)	400 (300)	20 (25)	6 (7.5)	24 (35)	11 (16)
	37	939	51	5	12	300	25	7.5	40	18
	41	1040	51	7	12	300	25	7.5	47	21
	61	1560	81 (101)	9	12	300	40 (50)	12 (15)	110 (139)	50 (63)

### NON-REINFORCED

INSTABARRIER®		GENERAL PURPOSE BTO-TYPE II			
TAPE MATERIAL:	301 Stainless Steel		1.21" wide prior to forming		
BARB LENGTH/SPACING/OFFSET:	2.4" (± .10") tip/tip		4" on center		Alternately offset .15" - .45"

PRODUCT NAME	DIAMETER		LOOPS	WELDS	LOOP SPACING		LENGTH PER ROLL		WEIGHT PER ROLL	
	(inches)	(mm)			(INCHES)	(MM)	(FT)	(M)	(lbs)	(kgs)
<b>INSTABARRIER®</b> 	24	600	101	3	12	300	50	15	44	20
	30	750	101	5	12	300	50	15	53	24
	40	1000	101	7	12	300	50	15	71	32
	60	1500	101	13	12	300	50	15	106	48
<b>GENERAL PURPOSE BTO-TYPE II</b>	24/30	600/750	33/33	-	24	600	66	20	36	16

**NOTES:** RAZOR RIBBON® HELICAL, MAZE®, SUPERMAZE®, NATO BARRIER® and DETAINER HOOK BARB® products may be ordered with both galvanized tape and high-tensile galvanized core wire. Some products are available with more or fewer loops per roll. Additional clips per loop are available upon request. In situations where increased product density is desired, reduced coil spacing of wire-reinforced products will affect deployment coverage. Offset barb configuration also available for MAZE, SUPERMAZE, and NATO BARRIER products.

**WARNING:** The manufacturer recommends that all RAZOR RIBBON® barbed tape obstacles that are mounted on walls and fences have a minimum installation height of 2.13 meters (7 feet) from ground level. The material shall be installed in such a manner as to avoid any and all contact by non-intruding pedestrian traffic. It shall also present an open, obvious and highly visible condition of danger. RAZOR RIBBON® barbed tape obstacles should only be used as ground barriers in proper locations, such as correctional facilities, military bases, or other highly sensitive areas. RAZOR RIBBON® barbed tape obstacles are not meant to be used as ground barriers in commercial, light industrial, or other private applications.

RAZOR RIBBON® barbed tape obstacles are not manufactured for use in any residential applications.

RAZOR RIBBON®, INSTABARRIER®, DETAINER HOOK BARB®, NATO BARRIER® and MAZE® are registered trademarks.

# Razor Ribbon<sup>®</sup> Brand

Military Force Protection

All styles and configurations have been field tested by State and Federal Agencies for a minimum of 20 years.

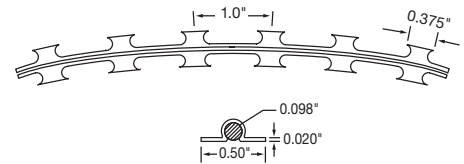
# Security Coil Selection Charts

## National Stock Number Assignment

### MILITARY TACTICAL BARRIER (WIRE REINFORCED)

NSN	Description	Dia.	Coil Loops	Strip Material	Core Wire	Coil Spacing	Yield	Packing
5660-00-921-5516	Concertina coil	38"	56	GA	GA	21" 15"	50' 35'	1/40

*Uses: Military Battlefield and Training Barrier.*

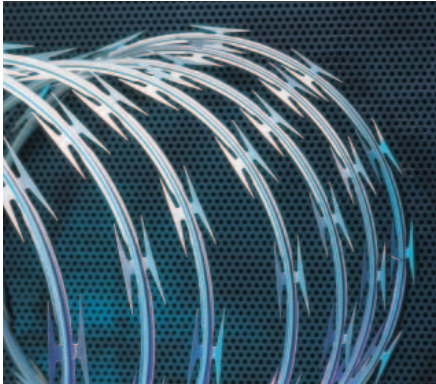


### BTC BARBED TAPE CONCERTINA (SHORT BARB)

Single coil wire reinforced concertinas, 38" in diameter are fabricated from 0.020" thick ASTM A653 (GA) galvanized steel strip. Strip is clinched around a galvanized steel core wire. Each roll consists of 56 coil loops with pairs of coil loops alternately clipped together at 5 locations around the circumference. Each coil extends to 50' when deployed at 21" coil spacing. Two opposing handles at each end are attached to the end coils. Refer to Military Specifications, A-A-555-22A for additional information.

# Security Coil Selection Charts

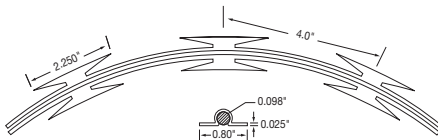
## National Stock Number Assignment



### HELICAL (WIRE REINFORCED)

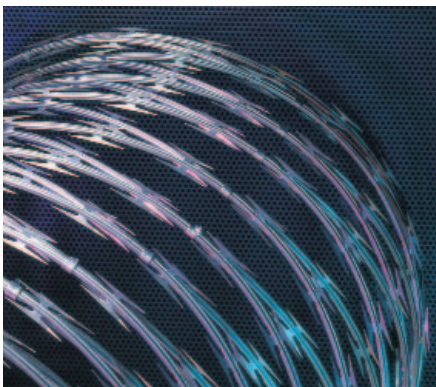
NSN	Description	Dia.	Coil Loops	Strip Matl.	Core Wire	Coil Spacing	Yield	Pkg.	ASTM F 1910 Item#
5660-01-457-9757	Helical Single Coil	18"	33	SS	GA	18"	50'	5/box	#2
5660-01-149-6123	Helical Single Coil	18"	33	GA	GA	18"	50'	5/box	#2
5660-01-457-9828	Helical Single Coil	18"	33	SS	SS	18"	50'	5/box	#1
5660-01-457-9842	Helical Single Coil	24"	33	SS	GA	18"	50'	5/box	#6
5660-01-495-6777	Helical Single Coil	24"	33	GA	GA	18"	50'	5/box	#6
5660-01-457-9843	Helical Single Coil	24"	33	SS	SS	18"	50'	5/box	#5

*Uses: Warehousing, Manufacturing, Parking Lots, Storage, and other Low Level Security Applications.*



### HELICAL BARBED TAPE (LONG BARB)

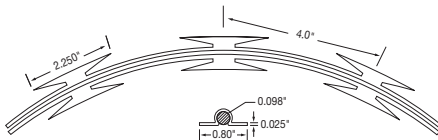
Single Coil wire reinforced 18" and 24" in diameter are fabricated from 0.025" thick AISI 430 (SS) stainless steel or ASTM A 653 (GS) galvanized steel. Each roll consists of 33 coil loops with barb clusters 4" o.c. along the spiral turns. Wire reinforced helical coils are available in combinations of SS or GS strip clinched 230° around 0.098" diameter SS or GA core wire.



### CONCERTINA (WIRE REINFORCED)

NSN	Description	Dia.	Coil Loops	Strip Matl.	Core Wire	Clips	Coil Spacing	Yield	Pkg.	ASTM F 1910 Item#
5660-01-457-9847	Single Coil Concertina	18"	31	SS	GA	3	12"	15'	4/Box	#8
5660-01-495-6178	Single Coil Concertina	18"	31	GA	GA	3	12"	15'	4/Box	#8
5660-01-457-9849	Single Coil Concertina	18"	31	SS	SS	3	12"	15'	4/Box	#9
5660-01-457-9850	Single Coil Concertina	24"	31	SS	SS	3	16"	20'	5/Box	#10
5660-01-149-6284	Single Coil Concertina	24"	31	GA	GA	3	16"	20'	5/Box	#10
5660-01-457-9852	Single Coil Concertina	24"	31	SS	SS	3	16"	20'	5/Box	#11
5660-01-495-9534	Single Coil Concertina	30"	51	SS	SS	5	12"	25'	3/Box	#15
5660-01-495-9566	Single Coil Concertina	30"	51	SS	GA	5	12"	25'	3/Box	#15

*Uses: Low Security Confinement and Detention Applications, Low Level Utility Companies and Airport Perimeters, etc.*

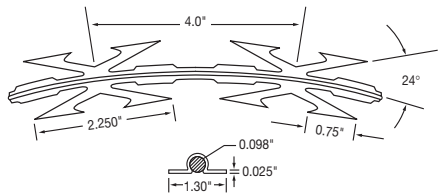
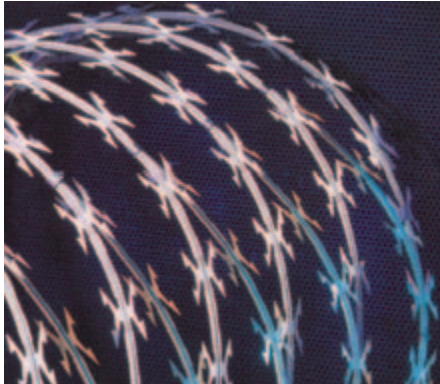


### CONCERTINA BARBED TAPE (LONG BARB)

Single coil wire reinforced concertinas 18" in diameter are fabricated from 0.025" thick AISI 430 (SS) stainless steel or ASTM A653 (GA) galvanized steel. Each roll consists of 31 coil loops with pairs of loops alternately clipped together at 3 locations around the circumference. Clusters of 4 needle sharp barbs are located 4" o.c. along the spiral turns. Concertina rolls are available in combinations of SS or GA., tape and core wire. Barbed tape is wrapped 230° around 0.098" diameter SS or GA core wire.

# Security Coil Selection Charts

## National Stock Number Assignment



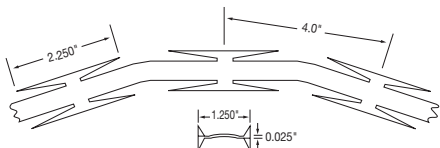
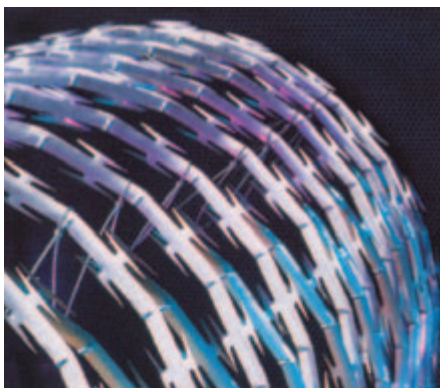
### HOOK BARB (WIRE REINFORCED)

NSN	Description	Dia.	Coil Loops	Strip Matl.	Core Wire	Clips	Coil Spacing	Yield	Pkg.
5660-01-495-6189	Detainer single coil concertina	19"	31	SS	GA	3	12"	15'	4/Box
5660-01-495-6161	Detainer single coil concertina	19"	31	GA	GA	3	12"	15'	4/Box
5660-01-495-6200	Detainer single coil concertina	19"	31	SS	SS	3	12"	15'	4/Box
5660-01-494-0228	Detainer single coil concertina	25"	31	SS	GA	3	16"	20'	5/Box
5660-01-494-0218	Detainer single coil concertina	25"	31	SS	SS	3	16"	20'	5/Box
5660-01-495-9585	Detainer single coil concertina	31"	51	SS	GA	5	12"	25'	4/Box
5660-01-495-9581	Single coil concertina	31"	51	SS	SS	5	12"	25'	4/Box

*Confinement Applications, Nuclear Generating Plants, Petroleum/Chemical Storage, Refineries, Sensitive Areas at Airports and Nuclear Weapons Storage, etc.*

### CONCERTINA BARBED TAPE (LONG BARB)

Single coil wire reinforced concertinas 24" in diameter are fabricated from 0.025" thick AISI 430 (SS) stainless steel or ASTM A653 (GA) galvanized steel. Each roll consists of 31 coil loops with pair of loops alternately clipped together at 3 locations around the circumference. Clusters of four needle sharp barbs are located 4" o.c. along the spiral turns. Concertina coils are available in combinations of SS or GA., tape and core wire. Barbed tape is wrapped 230° around 0.098" diameter SS or GA core wire.



### BARBED TAPE (NON-REINFORCED)

NSN	Description	Dia.	Coil Loops	Strip Matl.	Cable	Welds	Coil Spacing	Yield	Pkg.	ASTM F 1910 Item#
5660-01-495-6363	Single Coil Concertina Rapid Deployment	30"	101	SS	1	5	12"	50'	7/Box	#25

*Confinement Applications, Nuclear Generating Plants, Petroleum/Chemical Storage, Refineries, Sensitive Areas at Airports and Nuclear Weapons Storage, etc.*

### CONCERTINA BARBED TAPE (LONG BARB)

Single coil non-reinforced concertinas 30" in diameter are fabricated from 0.025" thick AISI 301 SS (Stainless Steel). Each roll consists of 101 coil loops with pairs of loops alternately spot welded together at 5 locations around the circumference. Cluster of 4 needle sharp barbs are located 4" o.c. along the spiral turns. Non-reinforced concertinas are only available in stainless steel.

# Razor Ribbon<sup>®</sup> Brand

*This unit is rapidly dispensed and quickly recovered for repeated reuse. Developed for interior and exterior applications, this unit is deployed in hallways, stairwells, entrances and exit areas, etc.*

# HatBox Rapid Deployment Unit

## Specifications

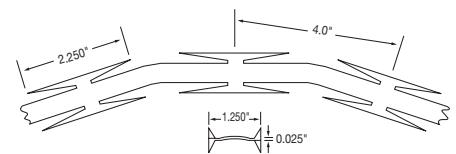
HATBOX RAPID DISPENSING AND RECOVERY UNIT								
NSN	Description	Dia.	Coil Loops	Strip Material	Cable	Welds	Yield	Pkg.
5660-01-495-6412	Single Coil Concertina Rapid Deployment	30"	101	SS	1	5	50'	One/Container

*Uses: Riot Control, Crowd Control, (Impedes Movement On Stairways, Corridors, Sidewalks and Streets, Etc.)*

*Where Used: Embassies, Jails, Prisons, INS Facilities, Courthouses, and Police Departments, etc.*

### RIOT/CROWD CONTROL UNIT MODEL #RD30-50

Rapid dispensing anti-personnel barrier provides 50' (15m) of 30" (762mm) diameter barbed tape fabricated from 0.025" (0.64mm) thick 301 autenitic stainless steel strip hardened to Rockwell (30N) 50-55. Clusters of four needle sharp barbs shall be punched 4" (102mm) on center. Barb cluster width shall be 1.210" (31mm). Barbs shall be alternately offset from the tape's centerline 0.15" (3.8mm-11mm). Each coil loop shall contain (24) ± 1 barb cluster. Adjacent pair of coil loops shall be spot welded together at (5) points around the circumference in such a way to prevent one coil slipping passed the other. Weld attachments shall be capable of surviving a minimum pure tensile load of 400# (18kg). One or more jacketed stainless steel wire rope 7x7 strand 3/64" minimum diameter shall be attached to each pair of coil loops along the length of the obstacle. Wire rope shall fix the concertina openings a 12" ± 2" (305mm ± 51mm). 101 coil loops shall cover 50' ± 2" (15.2m ± 51mm). 16 gauge twist ties, gloves, stakes and tie tool furnished with each unit housed in a fiber case canister (HatBox). Designed for military and police use in varying climates and terrain conditions.



# Razor Ribbon<sup>®</sup> Brand

*This perimeter security system, currently in use by our military, provides a defensive barrier suitable for temporary or permanent placement.*

# Fence Picket

## USAGE

Now available from Allied Tube & Conduit, the fence picket is designed for the rapid installation of a security perimeter. After the post is driven into the ground, barbed wire is inserted into the built-in slots along the length of the perimeter. This system can either stand alone or be augmented with the addition of barbed tape concertina attached to the barbed wire when needed.

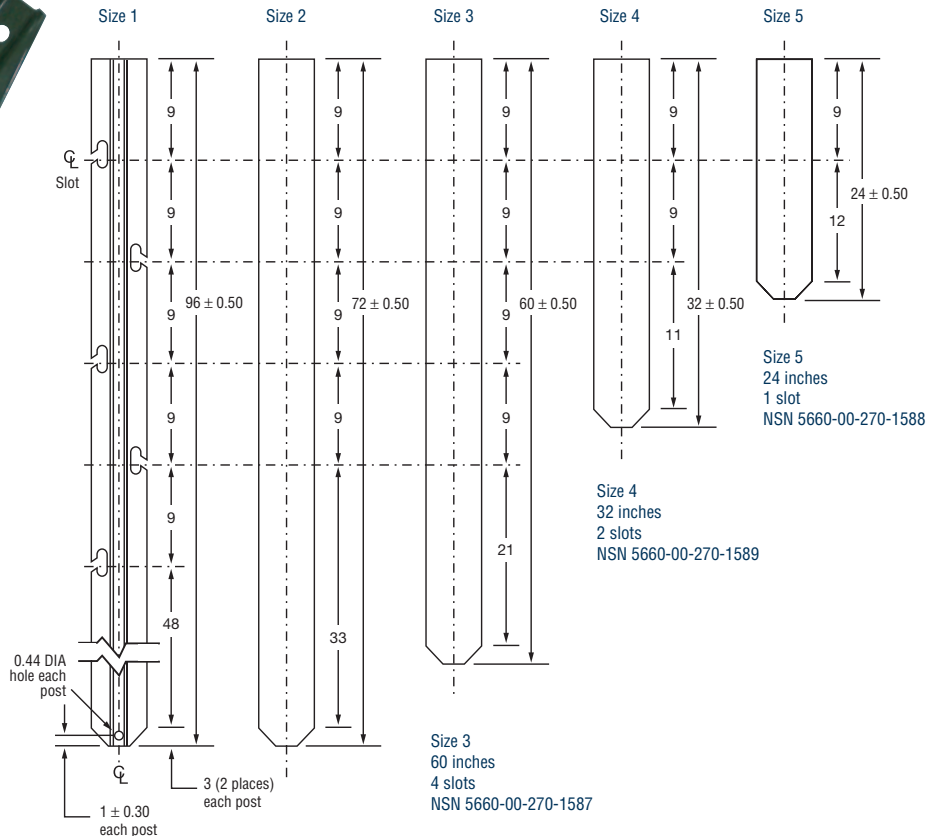
## MANUFACTURING

The fence picket is constructed from steel conforming to ASTM A1011, producing a yield strength of 50,000 psi, and complies with federal specifications and GSA guidelines for Fence Post, Drive Type, Spadeless.

The posts, depending on length, have alternating slots on each side every 9" to accommodate strands of barbed wire. The post width is approximately 3" and can be ordered in a variety of lengths ranging from 24" to 96".

The standard exterior color is forest green with additional colors and/or galvanization available upon request.

## A-A-55523



### NOTES:

1. All dimensions are in inches.
2. Unless otherwise specified, tolerances are ± 0.25 and should not be cumulative.

# Razor Ribbon<sup>®</sup> Brand

*Allied Tube & Conduit  
supplies the accessories  
necessary for a safe and  
professional installation.*

## Installation Accessories

For your convenience, Allied offers various accessories to complete a safe and professional installation (as pictured below, left to right).

- Hog Rings
- Ground Stakes
- Gloves
- Wrist Guards
- Arm Guards
- Hog Ring Pliers
- Wire Tie Twist Tool
- Wire Ties
- Warning Signs (English and Spanish)



Ground Stakes are required to anchor any ground based configuration, usually at ten feet intervals. The Barbed Tape coil is affixed to the fence fabric with either Hog Rings or Wire Ties. The Hog Ring Pliers or a Wire Tie Twist Tool will be used, depending on the specification, to compress the hog rings or to twist the wire tie. In order to protect the installer, an Arm Guard, covering the hand to the elbow, or a Sleeve Guard, covering the wrist to the shoulder, should be used. Both afford a degree of safety during the installation process. Lastly, Warning Signs are used to alert unsuspecting persons to the imminent danger.

Please call our Barbed Tape Customer Service Office at 1-877-285-4066 for more information on these products.

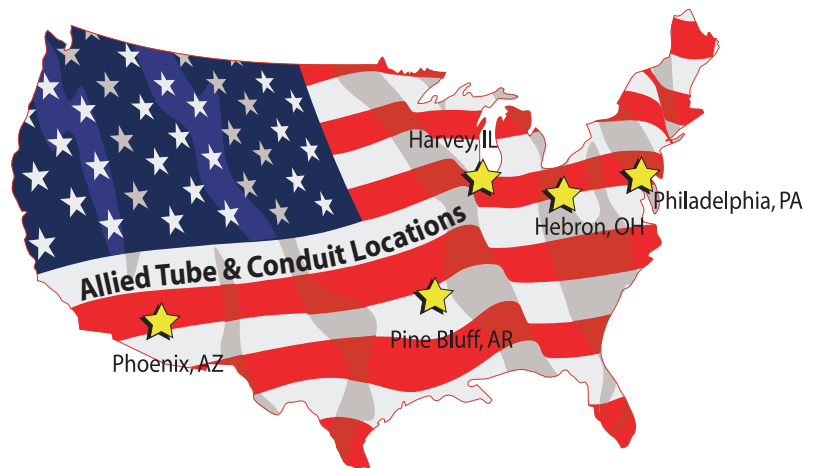
# Contact Information

## CUSTOMER SERVICE

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**FENCE FRAMEWORK**  
(800) 643-1523 Toll-free  
[www.atcfence.com](http://www.atcfence.com)

**RAZOR RIBBON®/BARBED TAPE**  
(877) 285-4066 Toll-free  
[www.razorribbon.com](http://www.razorribbon.com)



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