## **Cap Tubing**



Our Soft Copper Capillary Tubing is precision plug drawn with the internal diameter held to a tolerance of +/- .001. It has been thoroughly dehydrated, sealed and individually packaged.

### **BC Series Bullet®Restricto Cap Tubing**

Fits ANY domestic and commercial refrigerator or room air conditioner from 1/8 H.P. to 5 H.P.

### **Features**

- Precision Bore, Plus or Minus .001
- The Bullet Restricto Cap is consolidated into a five-pak replacement kit. It's
- guaranteed to provide you with uniformity on all applications.
- The five "Restricto Cap" sizes cover hundreds of applications (see chart below).
- Specification: ASTMB360

PART NO.	SIZE	LENGTH
BC1	.081 O.D. x .031 I.D.	10 FT. COIL
BC2	.093 O.D. x .040 I.D.	12 FT. COIL
BC3	.093 O.D. x .052 I.D.	12 FT. COIL
BC4	.125 O.D. x .064 I.D	12 FT. COIL
BC5	.071 O.D. x .028 I.D.	10 FT. COIL
BC1-100	.081 O.D. x .031 I.D.	100 FT. COIL
BC2-100	.093 O.D. x .040 I.D.	100 FT. COIL
BC3-100	.093 O.D. x .052 I.D.	100 FT. COIL
BC4-100	.125 O.D. x .064 I.D.	100 FT. COIL
BC5-100	.071 O.D. x .028 I.D.	100 FT. COIL
5PAK	Five pack replacemer	nt kit.

	CLO LOS X 50'
I	
I	Spor

## **CTC3** Cap Tube Computer

Calculate the flow rate of a defective cap tube and duplicate that flow rate with cap tubes that have a different I.D.

### Features/Benefits

- · Computes inside diameter, length, refrigerant, horsepower, application and flow rate
- Shows temperature/pressure charts for 12 refrigerants
- Compact, light weight & easy to use!
- Converts Cap Tubing used with refrigerants R12, 134A, R22, and R502 only.

### **Added Notes**

- Use R12 conversion for R416A
- Use R134 conversion for R401A, R401B, R406A, R500, R409A
- Use R502 conversion for R402B, R403B, R404A, R407C, R408A

## Reference chart for Bullet<sup>®</sup> "Restricto" Capillary Tubing for All Refrigerants in Low, Medium and High Applications

**NOTE:** This chart is average measurements for average conditions, and may have to be "fine tuned" for exact replacement. These charts are for Fan Cooled units only. Add 10% to the length of the cap tubing for Static Cooled Units.

### **NOTE:** Application Temperatures are Saturated Suction Temperatures (SST).

REF	hp	-10 LOW	+20 MED	+45 HIGH	REF	hp	-10 LOW	+20 MED	+45 HIGH
R12/R416A	1/8 hp	110" # 5	84" # 5	48" # 5	R134A / R401A	1/8 hp	121" # 5	92" #5	53" # 5
	1/6 hp	71" #5	96" # 1	72" # 1	R401B/R406A	1/6 hp	78" #5	106" #1	79" # 1
	1/5 hp	54" #1	36" # 1	24" # 1	R409A/R500	1/5 hp	59" #1	39" #1	26" # 1
	1/4 hp	43" #1	90" # 2	60" # 2		1/4 hp	47" #1	99" #2	66" # 2
	1/3 hp	93" #2	72" # 2	36" # 2		1/3 hp	102" # 2	79" #2	39" # 2
	1/2 hp	96" #3	48" # 3	90" # 4		1/2 hp	105" # 3	52" # 3	99" # 4
	3/4 hp	60" #3	92" # 4	72" # 4		3/4 hp	66" #3	101" #4	79" # 4
	1 hp	36" #3	84" # 4	54" # 4		1 hp	39" #3	92" #4	59" # 4
	1-1/2 hp	84" #4	60" # 4	43" # 4		1-1/2 hp	92" #4	66" #4	47" # 4
	2 hp	55" #4	40" # 4	26" # 4		2 hp	61" #4	44" #4	29" # 4

**NOTE:** For Multiple Feeds with smaller HP's than those shown in the charts.

- Divide HP by number of feeds, go to Single Feed Chart, select a cap tube for the calculated HP and use that selection for each feed.
- Ex: 1 HP, LOW, R12 5 FEED USE: 1/5 HP, LOW, R12, SINGLE FEED CHART
- RESULT: 5 Feeds, 54" BC1



# **Cap Tubing**

SINGLE FEED									
REF	hp	-10 LOW	+20 MED	+45 HIGH	REF	hp	-10 LOW	+20 MED	+45 HIGH
R22	1/8 hp	132" #5	101" #5	58" #5	R402B/R403B	1/8 hp	144" <i>#</i> 5	111" #5	63" #5
	1/6 hp	86" #5	116" #1	86" #1	R404A/R407C	1/6 hp	95" #5	78" #5	95" #1
	1/5 hp	64" #1	42" #1	28" #1	R408A/R502	1/5 hp	70" #1	46" #1	31" #1
	1/4 hp	51" #1	109" #2	72" #2		1/4 hp	56" #1	31" #1	79" #2
	1/3 hp	112" #2	87" #2	43" #2		1/3 hp	30" #1	96" #2	47" #2
	1/2 hp	115" #3	57" #3	109"#4		1/2 hp	29" #2	63" #3	32" #3
	3/4 hp	72" #3	111"#4	87" #4		3/4 hp	79" #3	32" #3	96" #4
	1 hp	42" #3	101"#4	65" #4		1 hp	46" #3	111" #4	72" #4
	1-1/2 hp	101"#4	72" #4	51" #4		1-1/2 hp	111"#4	79" #4	56" #4
	2 hp	67" #4	48" #4	32" #4		2 hp	74" #4	52" #4	34" #4
R402A/R407A	1/8 hp	N/A	122" #5	69" #5	R410A	1/8 hp	N/A	144" #5	81" #5
R407B/R507	1/6 hp	104" # 5	138" #1	105" #1		1/6 hp	123" #5	100" #5	78" #5
	1/5 hp	77" #1	50" #1	34" #1		1/5 hp	90" #1	60" #1	41" #1
	1/4 hp	62" #1	34" #1	86" #2		1/4 hp	73" #1	40" #1	101" #2
	1/3 hp	33" #1	106" #2	52" #2		1/3 hp	38" #1	30" #1	62" #2
	1/2 hp	31" #2	69" #3	35" #3		1/2 hp	37" #2	84" #3	42" #3
	3/4 hp	87" #3	37" #3	106" #4		3/4 hp	104" #3	44" #3	34" #3
	1 hp	52" #3	30" #3	79" #4		1 hp	62" #3	36" #3	94" #4
	1-1/2 hp	32" #3	86" #4	62" #4		1-1/2 hp	38" #3	103" #4	74" #4
	2 hp	82" #4	58" #4	37" #4		2 hp	96" #4	69" #4	45" #4
DOUBLE FEED	(All double	feed caps tube	s require <b>2 ler</b>	gths of each size	listed below.)				
REF	hp	-10 LOW	+20 MED	+45 HIGH	REF	hp	-10 LOW	+20 MED	+45 HIGH
R12/R416A	1/2 hp	43" #1	90" #2	60" #2	R402B/R403B	1/2 hp	56" #1	119" #2	78" #2
1112/11410/1	3/4 hp	30" #1	63" #2	42" #2	R404A/R407C	3/4 hp	30 <i>#</i> 1 39" <i>#</i> 1	85" #2	55" #2
	1 hp	96" #3	48" #3	90" #4	R408A/R502	1 hp	28" #2	63" #3	119" <i>#</i> 4
	1 1/2 hp	60" #3	92" <i>#</i> 4	72" #4	n400A/n302	1 1/2 hp	20 #2 79" #3	32" #3	94" #4
	2 hp	36" #3	32 <i>#</i> 4 84" <i>#</i> 4	54" #4			47" #3	32 #3 110"#4	94 <i>#4</i> 71" <i>#</i> 4
	2 1/2 hp	108"#4	72" #4	49" #4		2 hp	47 #3 43" #3	96" <i>#</i> 4	71 #4 64" #4
	2 1/2 11p 3 hp	84" #4	60" #4	43" #4		2 1/2 hp		90 <i>#</i> 4 79" <i>#</i> 4	04 #4 57" #4
	3 1/2 hp	70" #4	54" #4	43 <i>#4</i> 35" <i>#</i> 4		3 hp	111" #4		
		70 #4 55" #4	34 <i>#</i> 4 40" <i>#</i> 4	26" #4		3 1/2 hp	92" #4	70" #4	46" #4
D1244/D4014	4 hp				D4004/D4074	4 hp	73" #4	53" #4	34" #4
R134A/R401A	1/2 hp	47" #1 33" #1	99" #2 69" #2	66" #2 46" #2	R402A/R407A	1/2 hp	62" #1	32" #1	85' #2
R401B/R406B	3/4 hp				R407B/R507	3/4 hp	43" #1	92" #2	60" #2
R409A/R500	1 hp	105"#3				1 hp	31" #2	70" #3	36" #3
	1 1/2 hp	66" #3	101" #4	79" #4		1 1/2 hp	87" #3	35" #3	103"#4
	2 hp	40" #3	92" #4	59" #4		2 hp	52" #3	28" #3	78" #4
	2 1/2 hp	119"#4	79" #4	53" #4		2 1/2 hp	47" #3	106"#4	70" #4
	3 hp	92" #4	66" #4	47" #4		3 hp	32" #3	86" #4	62" #4
	3 1/2 hp	77" #4	59" #4	38" #4		3 1/2 hp	101"#4	77" #4	50" #4
	4 hp	60" #4	44" #4	29" #4		4 hp	80" #4	58" #4	37" #4
R22	1/2 hp	52" #1	108" #2	72" #2	R410A	1/2 hp	72" #1	37" #1	102" #2
	3/4 hp	36" #1	77" #2	50" #2		3/4 hp	50" #1	116' #2	70" #2
	1 hp	115" #3	58" #3	108" #4		1 hp	37" #2	83" #3	42" #3
	1 1/2 hp	72" #3	110"#4	86" #4		1 1/2 hp	102" #3	44" #3	34" #3
	2 hp	43" #3	101"#4	65" #4		2 hp	62" #3	37" #3	93" #4
	2 1/2 hp	39" #3	87" #4	58" #4		2 1/2 hp	55" #3	32" #3	81" #4
	2 1/2 HP								
	3 hp	101" #4	72" #4	52" #4		3 hp	38" #3	101"#4	74" #4
				52" #4 41" #4 31" #4		3 hp 3 1/2 hp	38" #3 118"#4	101" <i>#</i> 4 90" <i>#</i> 4	74" #4 55" #4

 TRIPLE FEED
 (All triple feed cap tubes require 3 lengths of each size listed below.)

REF	hp	-10 LOW	+20 MED	+45 HIGH	REF	hp	-10 LOW	+20 MED	+45 HI	IGH
R12/R416A	1 hp	93" #2	72" #2	36" #2	R402B/R403B	1 hp	30" #1	94" #2	47" #	ŧ2
	1 1/2 hp	96" #3	48" #3	90" #4	R404A/R407C	1 1/2 hp	41" #2	63" #3	32" #	£3
	2 hp	77" #3	38" #3	72" #4	R408A/R502	2 hp	101" #3	50" #3	95" #	£4
	3 hp	36" #3	84" #4	54" #4		3 hp	47" #3	110" #4	71" #	£4
	4 hp	108" #4	63" #4	41" #4		4 hp	35" #3	83" #4	53" #	£4
	5 hp	86" #4	50" #4	32" #4		5 hp	32" #3	66" #4	43" #	£4
R134A/R401A	1 hp	102" #2	79" #2	39" #2	R402A/R407A	1 hp	33" #1	104" #2	52" #	ŧ2
R401B/R406A	1 1/2 hp	105" #3	52" #3	99" #4	4R07B/R507	1 1/2 hp	45" #2	70" #3	35" #	£3
R409A/R500	2 hp	84" #3	42" #3	79" #4		2 hp	111" #3	55" #3	104" #	£4
	3 hp	40" #3	92" #4	59" #4		3 hp	52" #3	31" #3	78" #	£4
	4 hp	30" #3	69" #4	45" #4		4 hp	38" #3	91" #4	58" #	£4
	5 hp	94" #4	55" #4	35" #4		5 hp	35" #3	72" #4	47" #	£4
R22	1 hp	112" #2	86" #2	43" #2	R410A	1 hp	39" #1	30" #1	62" #	ŧ2
	1 1/2 hp	37" #2	58" #3	108" #4		1 1/2 hp	54" #2	84" #3	42" #	£3
	2 hp	92" #3	46" #3	86" #4		2 hp	27" #2	66" #3	32" #	£3
	3 hp	43" #3	100" #4	65" #4		3 hp	62" #3	37" #3	94" #	£4
	4 hp	32" #3	75" #4	49" #4		4 hp	46" #3	109" #4	68" #	£4
	5 hp	102" #4	60" #4	39" #4		5 hp	42" #3	86" #4	56" #	£4

# **Cap Tubing**

FOUR FEED	(All four feed	cap tubes	require 4	engths	of each a	size liste	ed be	elow.)							
REF	hp	-10 L	OW +2	0 MED	+45	HIGH	1	REF	hp	-10	LOW	+20	MED	+45	HIGH
R12/R416A	2 hp	96" 7	#3 48"	#3	90"	#4		R402B/R403B	2 hp	29"	#2	63"	#3	32"	#3
	3 hp	60" <del>7</del>	#3 92"	#4	72"	#4		R404A/R407C	3 hp	79"	#3	32"	#3	94"	#4
	4 hp	36" 7	#3 84"	#4	54"	#4		R408A/R502	4 hp	47"	#3	111"	#4	71"	#4
	5 hp	105" #	<b>#</b> 4 67"	#4	43"	#4			5 hp	38"	#3	89"	#4	57"	#4
R134A/R401A	2 hp	105" #	#3 52"	#3	99"	#4		R402A/R407A	2 hp	31"	#2	70"	#3	35"	#3
R401B/R406A	3 hp	66" 7	#3 101	" #4	79"	#4		R407B/R507	3 hp	87"	#3	35"	#3	103"	#4
R409A/R500	4 hp	40" <del>7</del>	#3 92"	#4	59"	#4			4 hp	52"	#3	31"	#3	78"	#4
	5 hp	32" 7	#3 74"	#4	47"	#4			5 hp	42"	#3	97"	#4	63"	#4
R22	2 hp	115" #	#3 58"	#3	108"	#4		R410A	2 hp	34"	#2	81"	#3	41"	#3
	3 hp	72" 7	#3 110	)"#4	86"	#4			3 hp	101"	#3	48"	#3	32"	#3
	4 hp	44" 7	#3 10 <sup>-</sup>	"#4	65"	#4			4 hp	62"	#3	36"	#3	92"	#4
	5 hp	35" 7	#3 81"	#4	52"	#4			5 hp	49"	#3	30"	#3	74"	#4

#### FIVE FEED (All five feed cap tubes require 5 lengths of each size listed below.)

REF	hp	-10	LOW	+20	MED	+45	HIGH	1	REF	hp	-10	LOW	+20	MED	+45	HIGH
R12/R416A	2 hp	115"	#3	58"	#3	108"	#4		R402B/R403B	2 hp	35"	#2	77"	#3	38"	#3
	3 hp	81"	#3	41"	#3	77"	#4		R404A/R407C	3 hp	108"	#3	54"	#3	101"	#4
	4 hp	57"	#3	87"	#4	68"	#4		R408A/R502	4 hp	74"	#3	114"	#4	89"	#4
	5 hp	36"	#3	82"	#4	54"	#4		, ,	5 hp	53"	#3	108"	#4	71"	#4
R134A/R401A	2 hp	28"	#2	62"	#3	32"	#3	1	R402A/R407A	2 hp	38"	#2	84"	#3	42"	#3
R401B/R406B	3 hp	89"	#3	45"	#3	84"	#4		R407B/R507	3 hp	28"	#2	59"	#3	30"	#3
R409A/R500	4 hp	62"	#3	95"	#4	74"	#4			4 hp	81"	#3	35"	#3	99"	#4
	5 hp	40"	#3	92"	#4	59"	#4			5 hp	58"	#3	31"	#3	78"	#4
R22	2 hp	32"	#2	70"	#3	35"	#3		R410A	2 hp	45"	#2	98"	#3	49"	#3
	3 hp	97"	#3	49"	#3	92"	#4			3 hp	31"	#2	69"	#3	35"	#3
	4 hp	68"	#3	103"	#4	81"	#4			4 hp	95"	#3	40"	#3	30"	#3
	5 hp	48"	#3	98"	#4	65"	#4			5 hp	67"	#3	36"	#3	91"	#4

### SIX FEED (All six feed cap tubes require 6 lengths of each size listed below.)

								_								
REF	hp	-10	LOW	+20	MED	+45	HIGH	1	REF	hp	-10	LOW	+20	MED	+ 45	HIGH
R12/R116A	2 hp	93"	#2	72"	#2	36"	#2	1	R402B/R403B	2 hp	30"	#1	94"	#2	47"	#2
	3 hp	96"	#3	48"	#3	90"	#4		R404A/R407C	3 hp	29"	#2	63"	#3	32"	#3
	4 hp	82"	#3	41"	#3	77"	#4		R408A/R502	4 hp	118"	#3	53"	#3	27"	#3
	5 hp	56"	#3	86"	#4	68"	#4			5 hp	74"	#3	30"	#3	89"	#4
R134A/R401A	2 hp	102"	#2	79"	#2	39"	#2		R402A/R407A	2 hp	33"	#1	103"	#2	52"	#2
R401B/R406A	3 hp	105"	#3	52"	#3	99"	#4		R407B/R507	3 hp	31"	#2	70"	#3	35"	#3
R409A/R500	4 hp	90"	#3	45"	#3	85"	#4			4 hp	26"	#2	58"	#3	30"	#3
	5 hp	62"	#3	95"	#4	75"	#4			5 hp	82"	#3	33"	#3	98"	#4
R22	2 hp	112"	#2	86"	#2	43"	#2		R410A	2 hp	40"	#1	31"	#1	62"	#2
	3 hp	115"	#3	58"	#3	108"	#4			3 hp	37"	#2	85"	#3	42"	#3
	4 hp	98"	#3	49"	#3	92"	#4			4 hp	33"	#2	70"	#3	36"	#3
	5 hp	68"	#3	103	" #4	81"	#4			5 hp	98"	#3	40"	#3	32"	#3

**NOTE:** For Multiple Feeds with smaller hp's than those shown in the charts.

• Divide hp by number of feeds, go to Single Feed Chart, select a cap tube for the calculated hp and use that selection for each feed.

• Ex: 1 hp, LOW, R12 5 FEED USE: 1/5 hp, LOW, R12, SINGLE FEED CHART

• RESULT: 5 Feeds, 54" BC1