



# TOUGHTray

- Submittals -

(VOs Bulk Package)

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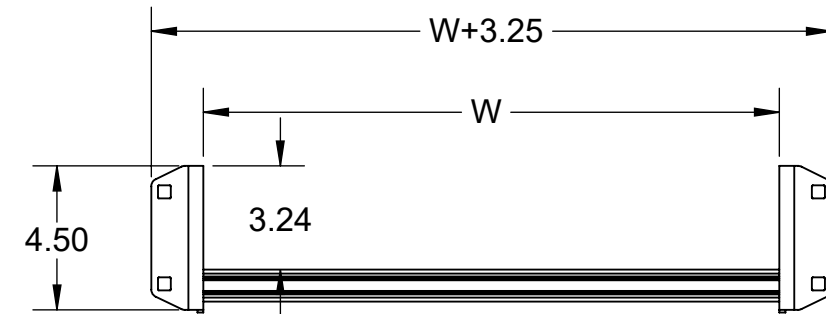
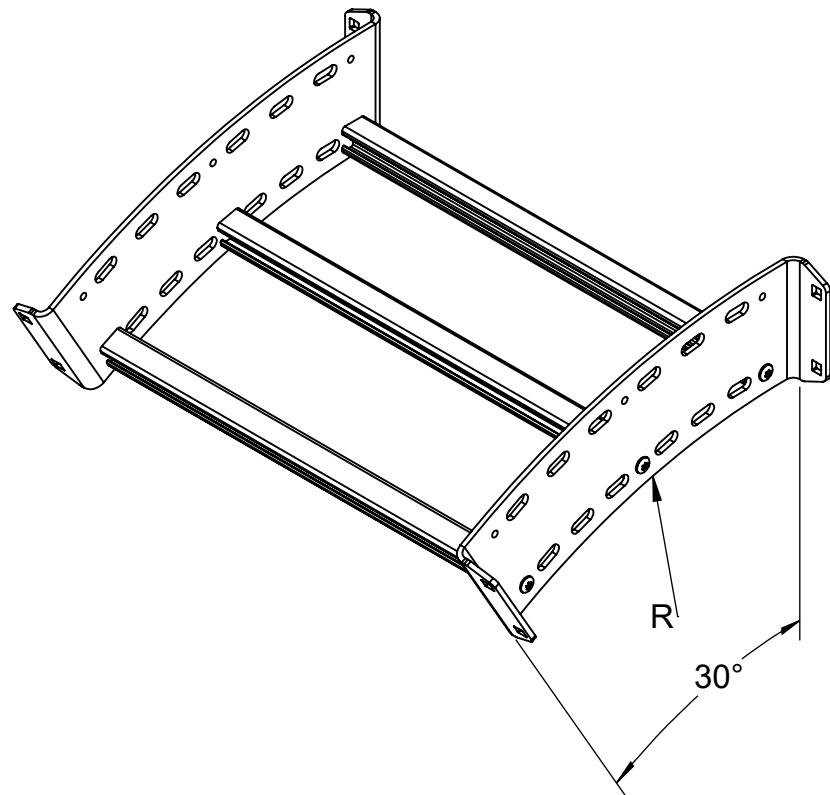
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SECTION VIEW

**TTF - 4 X 06 - 30 VO 12 - AL**

SERIES  
TTF = TOUGHTray  
FITTING

NOMINAL  
HEIGHT (H)  
4 = 4"

NOMINAL  
WIDTH (W)  
06 = 6"  
09 = 9"  
12 = 12"  
18 = 18"  
24 = 24"  
30 = 30"  
36 = 36"

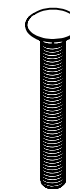
ANGLE  
30 = 30°

TYPE  
VO =  
VERTICAL  
OUTSIDE  
BEND

RADIUS (R)  
12 = 12"  
24 = 24"  
36 = 36"

MATERIAL  
AL =  
ALUMINUM

**HARDWARE INCLUDED:**



- (8EA) TA38SNCB300-S6  
3/8 X 3.0" SQUARE NECK CARRIAGE BOLT




- (8EA) TA38FNHX-S6  
3/8 SERRATED FLANGE HEX NUT

**PATENT PENDING**

**NOTES:**

- 1) DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE NOTED.
- 2) ALL DIMENSIONS SHOWN ARE NOMINAL.
- 3) CONTACT CT INNOVATIONS FOR OTHER SIZE OPTIONS.

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CT INNOVATIONS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CT INNOVATIONS IS PROHIBITED.

 <b>CT INNOVATIONS</b>	TITLE: <b>4" HEIGHT TTF SERIES 30° VERTICAL OUTSIDE BEND</b>		
	DRAWN BY/DATE: VA 22AUG2023	SIZE: <b>B</b>	DWG. NO.: <b>CTI-S45996</b>
APPROVED BY/DATE: JDG 22AUG2023	SCALE: <b>NTS</b>	CAD FILE NAME: 30deg VO CAD SAVE DATE: Tuesday, August 22, 2023 3:55:09 PM	SHEET: <b>1 OF 1</b>

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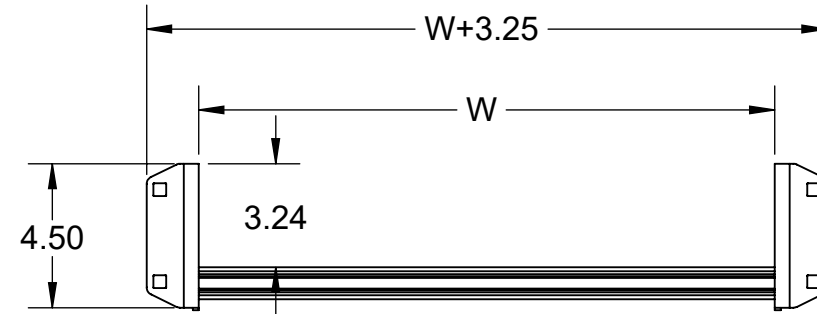
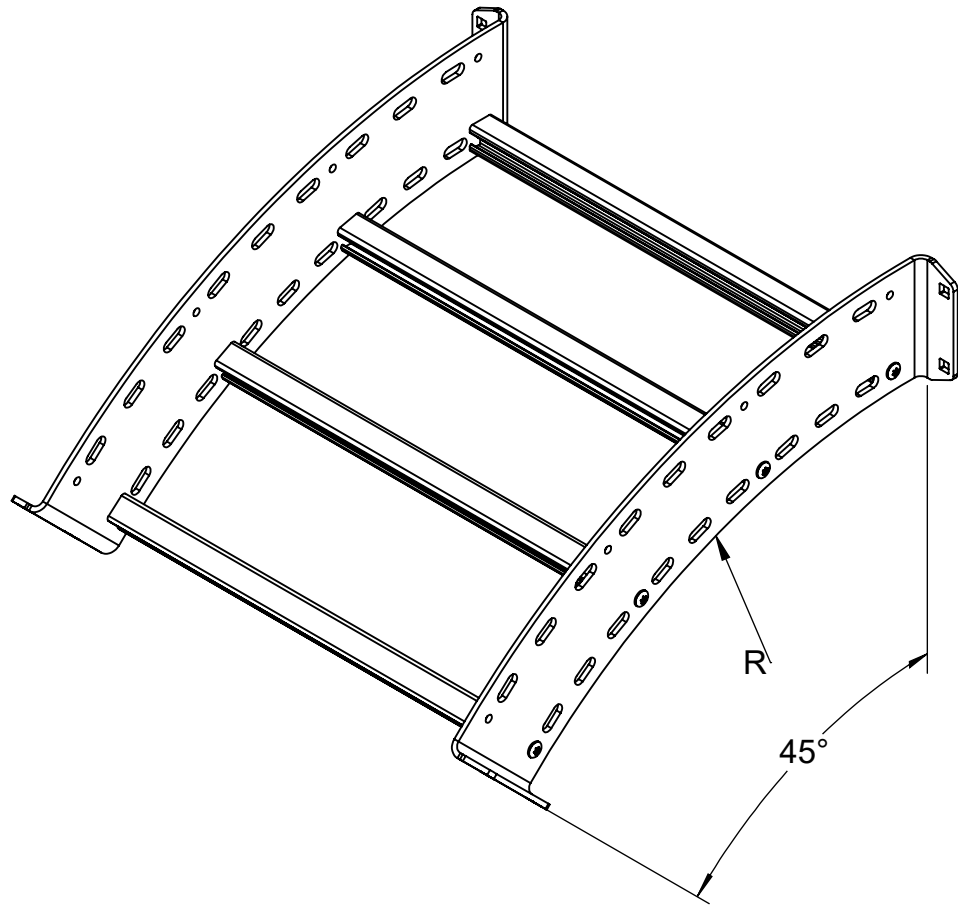
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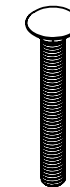
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SECTION VIEW

**HARDWARE INCLUDED:**



- (8EA) TA38SNCB300-S6  
3/8 X 3.0" SQUARE NECK CARRIAGE BOLT



- (8EA) TA38FNHX-S6  
3/8 SERRATED FLANGE HEX NUT

**TTF - 4 X 06 - 45 VO 12 - AL**

SERIES  
TTF = TOUGHTray  
FITTING

NOMINAL  
HEIGHT (H)  
4 = 4"

NOMINAL  
WIDTH (W)  
06 = 6"  
09 = 9"  
12 = 12"  
18 = 18"  
24 = 24"  
30 = 30"  
36 = 36"

ANGLE  
45 = 45°

TYPE  
VO =  
VERTICAL  
OUTSIDE  
BEND

RADIUS (R)  
12 = 12"  
24 = 24"  
36 = 36"


MATERIAL  
AL =  
ALUMINUM

**PATENT PENDING**

**NOTES:**

- 1) DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE NOTED.
- 2) ALL DIMENSIONS SHOWN ARE NOMINAL.
- 3) CONTACT CT INNOVATIONS FOR OTHER SIZE OPTIONS.

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 <b>CT INNOVATIONS</b>	TITLE: <b>4" HEIGHT TTF SERIES 45° VERTICAL OUTSIDE BEND</b>		
	DRAWN BY/DATE: LW 18AUG2023	SIZE: <b>B</b>	DWG. NO.: <b>CTI-S45997_B</b>
APPROVED BY/DATE: JDG 18AUG2023	SCALE: <b>NTS</b>	CAD FILE NAME: 45deg VO CAD SAVE DATE: Tuesday, August 22, 2023 4:14:07 PM	SHEET: <b>1 OF 1</b>

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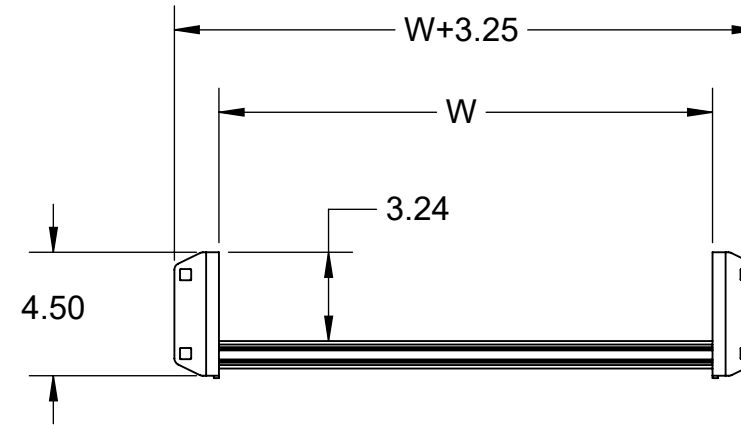
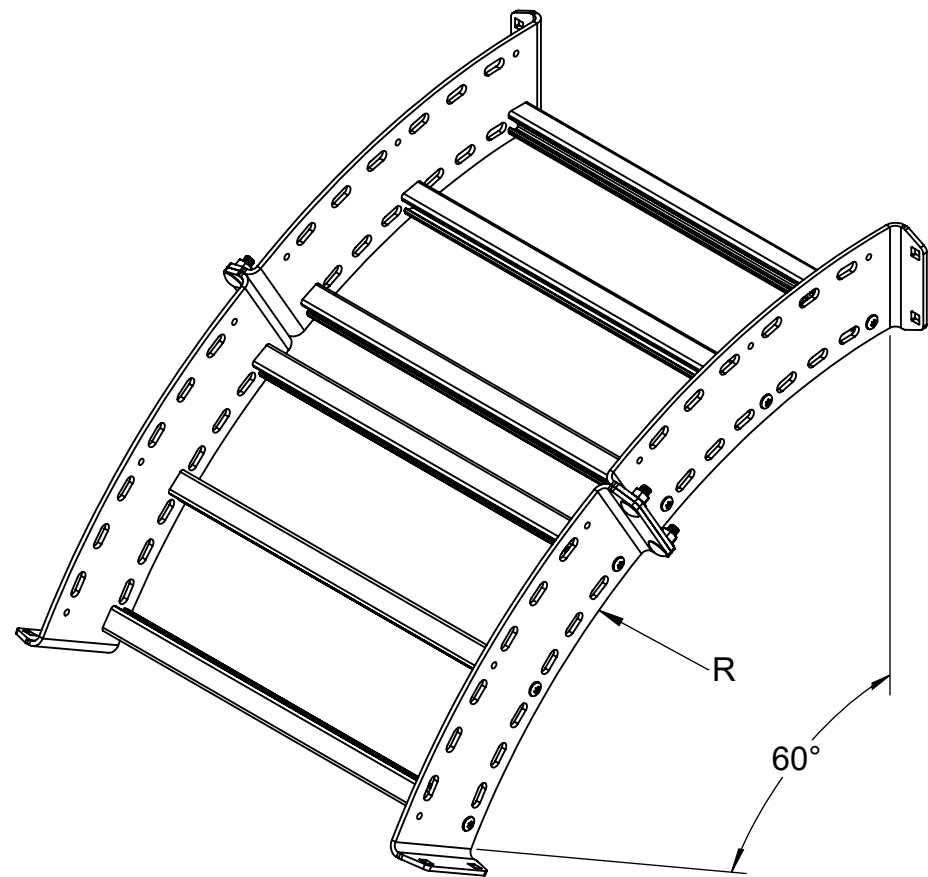
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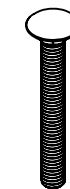
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SECTION VIEW

**HARDWARE INCLUDED:**



- (8EA) TA38SNCB300-S6  
3/8 X 3.0" SQUARE NECK CARRIAGE BOLT



- (8EA) TA38FNHX-S6  
3/8 SERRATED FLANGE HEX NUT

**TTF - 4 X 06 - 60 VO 12 - AL**


SERIES TTF = TOUGHTray FITTING	NOMINAL HEIGHT (H) 4 = 4"	NOMINAL WIDTH (W) 06 = 6" 09 = 9" 12 = 12" 18 = 18" 24 = 24" 30 = 30" 36 = 36"	ANGLE 60 = 60°	TYPE VO = VERTICAL OUTSIDE BEND	RADIUS (R) 12 = 12" 24 = 24" 36 = 36"	MATERIAL AL = ALUMINUM
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**PATENT PENDING**

**NOTES:**

- 1) DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE NOTED.
- 2) ALL DIMENSIONS SHOWN ARE NOMINAL.
- 3) CONTACT CT INNOVATIONS FOR OTHER SIZE OPTIONS.

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 <b>CT INNOVATIONS</b>	TITLE: <b>4" HEIGHT TTF SERIES 60° VERTICAL OUTSIDE BEND</b>		
	DRAWN BY/DATE: LW 22AUG2023	SIZE: <b>B</b>	DWG. NO.: <b>CTI-S45998</b>
APPROVED BY/DATE: JDG 22AUG2023	SCALE: <b>NTS</b>	CAD FILE NAME: 60deg VO CAD SAVE DATE: Tuesday, August 22, 2023 1:47:27 PM	SHEET: <b>1 OF 1</b>

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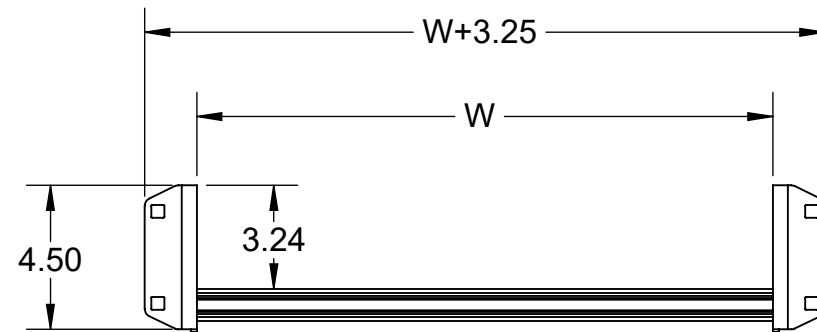
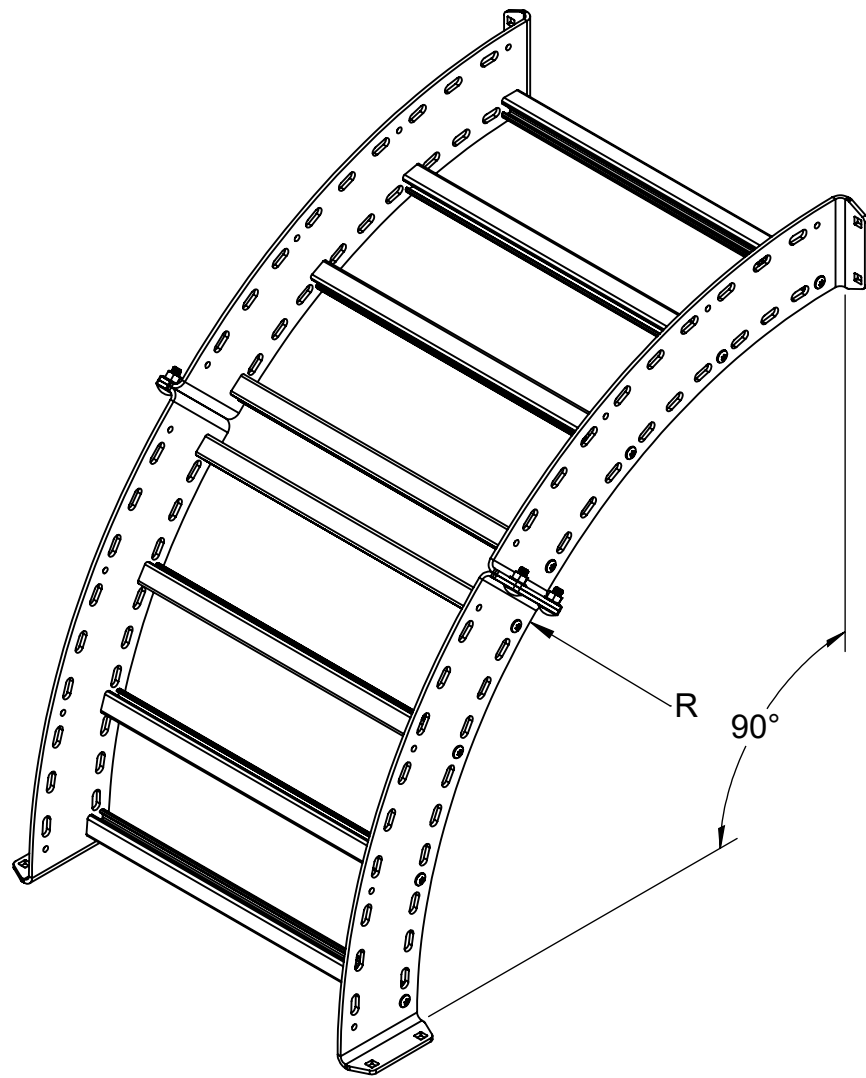
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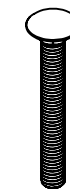
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SECTION VIEW

**HARDWARE INCLUDED:**



- (8EA) TA38SNCB300-S6  
3/8 X 3.0" SQUARE NECK CARRIAGE BOLT



- (8EA) TA38FNHX-S6  
3/8 SERRATED FLANGE HEX NUT

**TTF - 4 X 06 - 90 VO 12 - AL**

<p><b>SERIES</b> TTF = TOUGHTray FITTING</p>	<p><b>NOMINAL HEIGHT (H)</b> 4 = 4"</p>	<p><b>NOMINAL WIDTH (W)</b> 06 = 6" 09 = 9" 12 = 12" 18 = 18" 24 = 24" 30 = 30" 36 = 36"</p>	<p><b>ANGLE</b> 90 = 90°</p>	<p><b>TYPE</b> VO = VERTICAL OUTSIDE BEND</p>	<p><b>RADIUS (R)</b> 12 = 12" 24 = 24" 36 = 36"</p>	<p><b>MATERIAL</b> AL = ALUMINUM</p>
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**PATENT PENDING**

**NOTES:**

- 1) DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE NOTED.
- 2) ALL DIMENSIONS SHOWN ARE NOMINAL.
- 3) CONTACT CT INNOVATIONS FOR OTHER SIZE OPTIONS.

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	<p>TITLE: <b>4" HEIGHT TTF SERIES 90° VERTICAL OUTSIDE BEND</b></p>		
	<p>DRAWN BY/DATE: VA 22AUG2023</p>	<p>SIZE: <b>B</b></p>	<p>DWG. NO.: <b>CTI-S45999</b></p>
<p>APPROVED BY/DATE: JDG 22AUG2023</p>	<p>SCALE: <b>NTS</b></p>	<p>CAD FILE NAME: 90deg VO CAD SAVE DATE: Tuesday, August 22, 2023 4:15:32 PM</p>	<p>SHEET: <b>1 OF 1</b></p>

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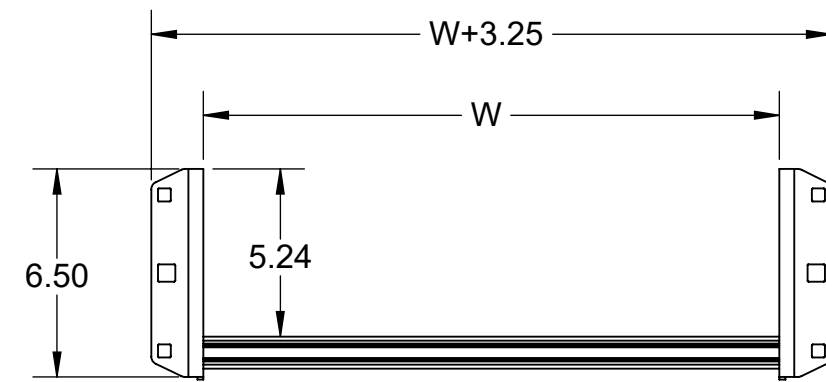
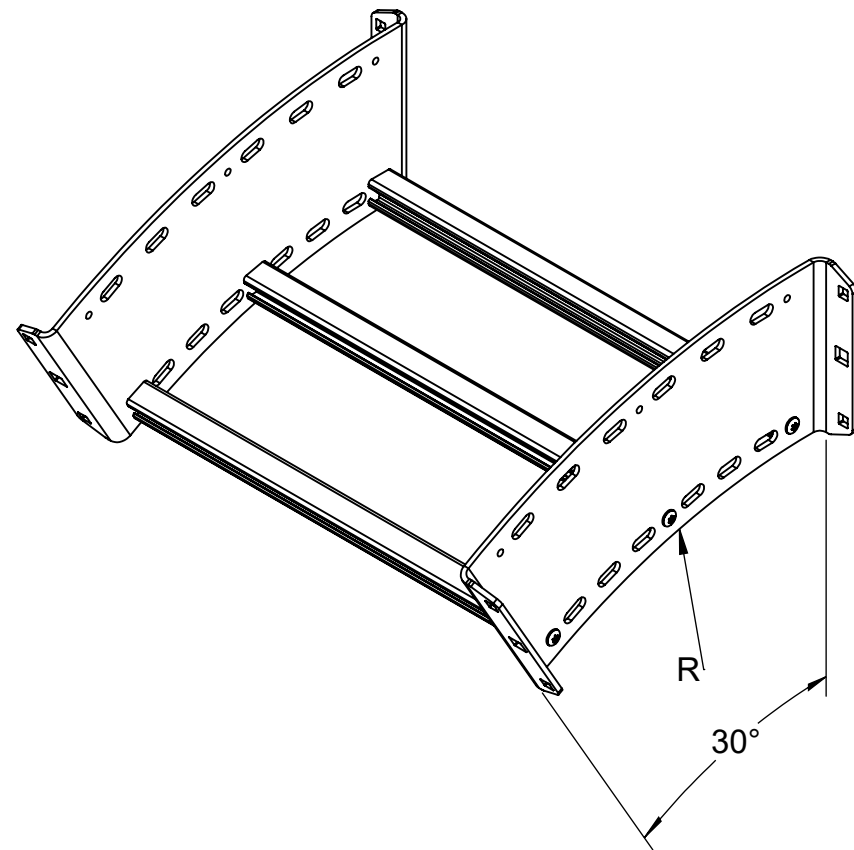
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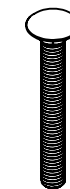


SECTION VIEW

**TTF - 6 X 06 - 30 VO 12 - AL**

SERIES TTF = TOUGHTray FITTING	NOMINAL HEIGHT (H) 6 = 6"	NOMINAL WIDTH (W) 06 = 6" 09 = 9" 12 = 12" 18 = 18" 24 = 24" 30 = 30" 36 = 36"	ANGLE 30 = 30°	TYPE VO = VERTICAL OUTSIDE BEND	RADIUS (R) 12 = 12" 24 = 24" 36 = 36"	MATERIAL AL = ALUMINUM
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**HARDWARE INCLUDED:**



- (8EA) TA38SNCB300-S6  
3/8 X 3.0" SQUARE NECK CARRIAGE BOLT




- (8EA) TA38FNHX-S6  
3/8 SERRATED FLANGE HEX NUT

**PATENT PENDING**

**NOTES:**

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 <b>CT INNOVATIONS</b>	TITLE: <b>6" HEIGHT TTF SERIES 30° VERTICAL OUTSIDE BEND</b>		
	DRAWN BY/DATE: LW 18AUG2023	SIZE: <b>B</b>	DWG. NO.: <b>CTI-S45988</b>
APPROVED BY/DATE: JDG 18AUG2023	SCALE: <b>NTS</b>	CAD FILE NAME: 30deg VO CAD SAVE DATE: Tuesday, August 22, 2023 3:36:31 PM	SHEET: <b>1 OF 1</b>

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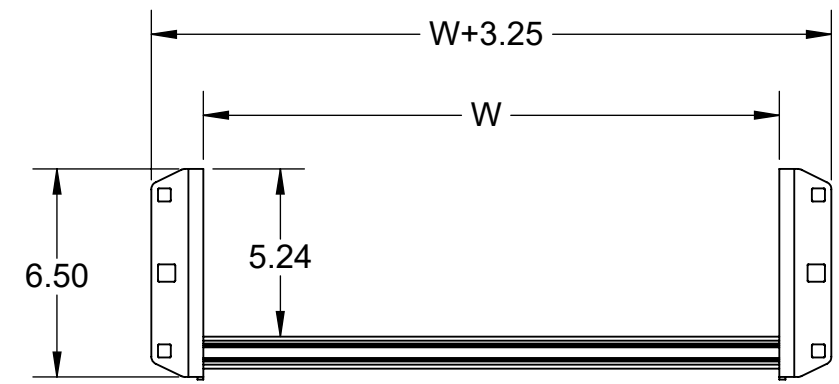
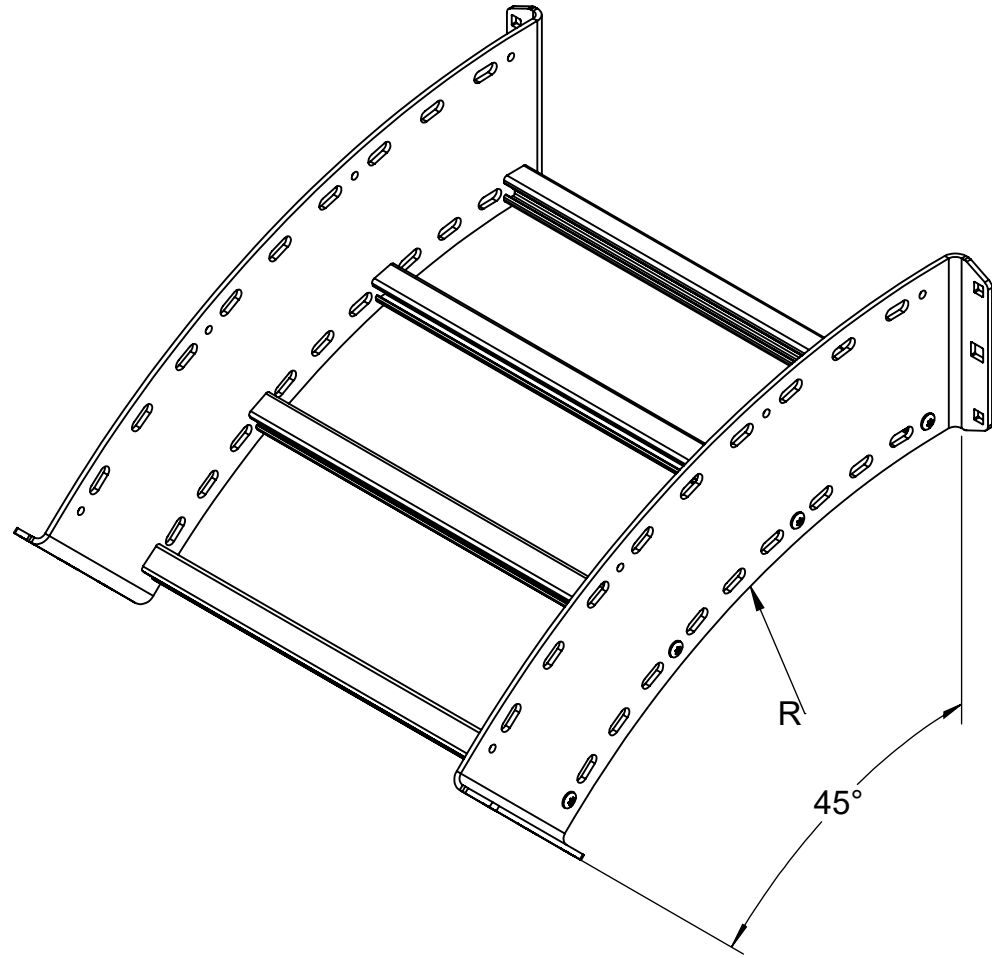
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SECTION VIEW

**TTF - 6 X 06 - 45 VO 12 - AL**

SERIES  
TTF = TOUGHTray  
FITTING

NOMINAL  
HEIGHT (H)  
6 = 6"

NOMINAL  
WIDTH (W)  
06 = 6"  
09 = 9"  
12 = 12"  
18 = 18"  
24 = 24"  
30 = 30"  
36 = 36"

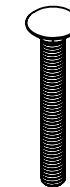
ANGLE  
45 = 45°

TYPE  
VO =  
VERTICAL  
OUTSIDE  
BEND

RADIUS (R)  
12 = 12"  
24 = 24"  
36 = 36"

MATERIAL  
AL =  
ALUMINUM

**HARDWARE INCLUDED:**



- (8EA) TA38SNCB300-S6  
3/8 X 3.0" SQUARE NECK CARRIAGE BOLT




- (8EA) TA38FNHX-S6  
3/8 SERRATED FLANGE HEX NUT

**PATENT PENDING**

**NOTES:**

- 1) DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE NOTED.
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 <b>CT INNOVATIONS</b>	TITLE: <b>6" HEIGHT TTF SERIES 45° VERTICAL OUTSIDE BEND</b>		
	DRAWN BY/DATE: LW 18AUG2023	SIZE: <b>B</b>	DWG. NO.: <b>CTI-S45989</b>
APPROVED BY/DATE: JDG 18AUG2023	SCALE: <b>NTS</b>	CAD FILE NAME: 45deg VO CAD SAVE DATE: Tuesday, August 22, 2023 3:37:08 PM	SHEET: <b>1 OF 1</b>

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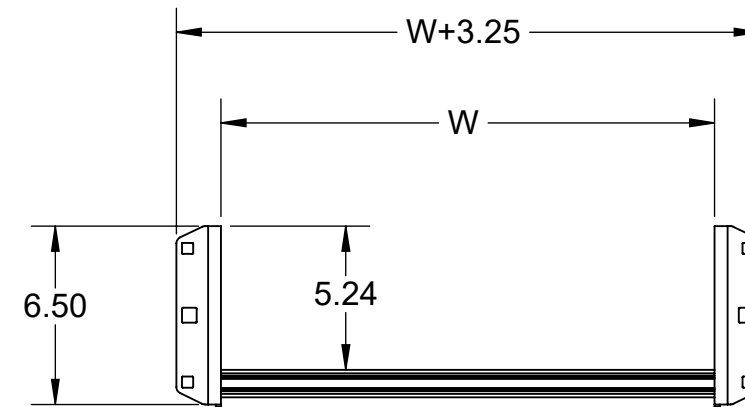
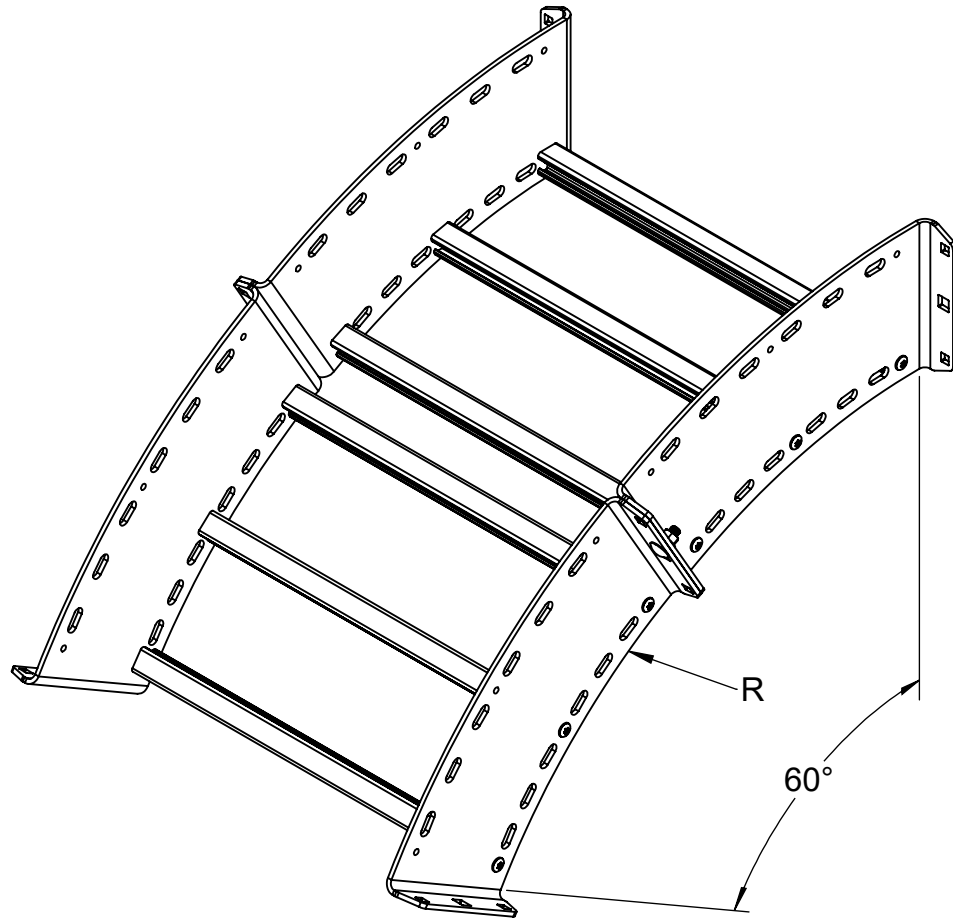
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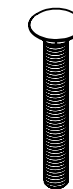
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SECTION VIEW

**HARDWARE INCLUDED:**



- (8EA) TA38SNCB300-S6  
3/8 X 3.0" SQUARE NECK CARRIAGE BOLT



- (8EA) TA38FNHX-S6  
3/8 SERRATED FLANGE HEX NUT

**TTF - 6 X 06 - 60 VO 12 - AL**


SERIES TTF = TOUGHTray FITTING	NOMINAL HEIGHT (H) 6 = 6"	NOMINAL WIDTH (W) 06 = 6" 09 = 9" 12 = 12" 18 = 18" 24 = 24" 30 = 30" 36 = 36"	ANGLE 60 = 60°	TYPE VO = VERTICAL OUTSIDE BEND	RADIUS (R) 12 = 12" 24 = 24" 36 = 36"	MATERIAL AL = ALUMINUM
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**PATENT PENDING**

**NOTES:**

- 1) DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE NOTED.
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 <b>CT INNOVATIONS</b>	TITLE: <b>6" HEIGHT TTF SERIES 60° VERTICAL OUTSIDE BEND</b>		
	DRAWN BY/DATE: LW 22AUG2023	SIZE: <b>B</b>	DWG. NO.: <b>CTI-S45990</b>
APPROVED BY/DATE: JDG 22AUG2023	SCALE: <b>NTS</b>	CAD FILE NAME: 60deg VO CAD SAVE DATE: Tuesday, August 22, 2023 3:38:08 PM	SHEET: <b>1 OF 1</b>

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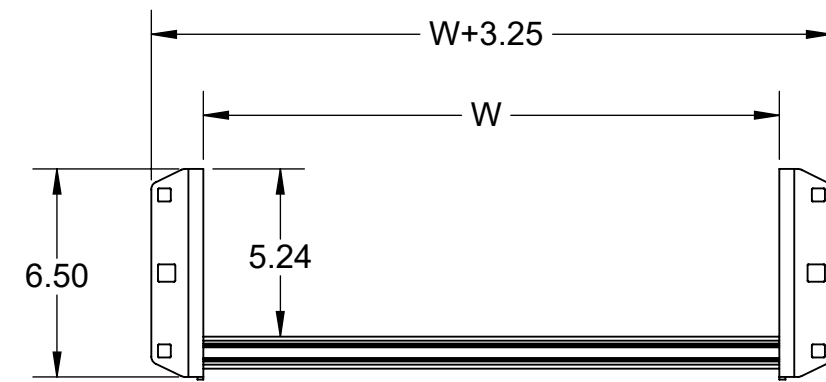
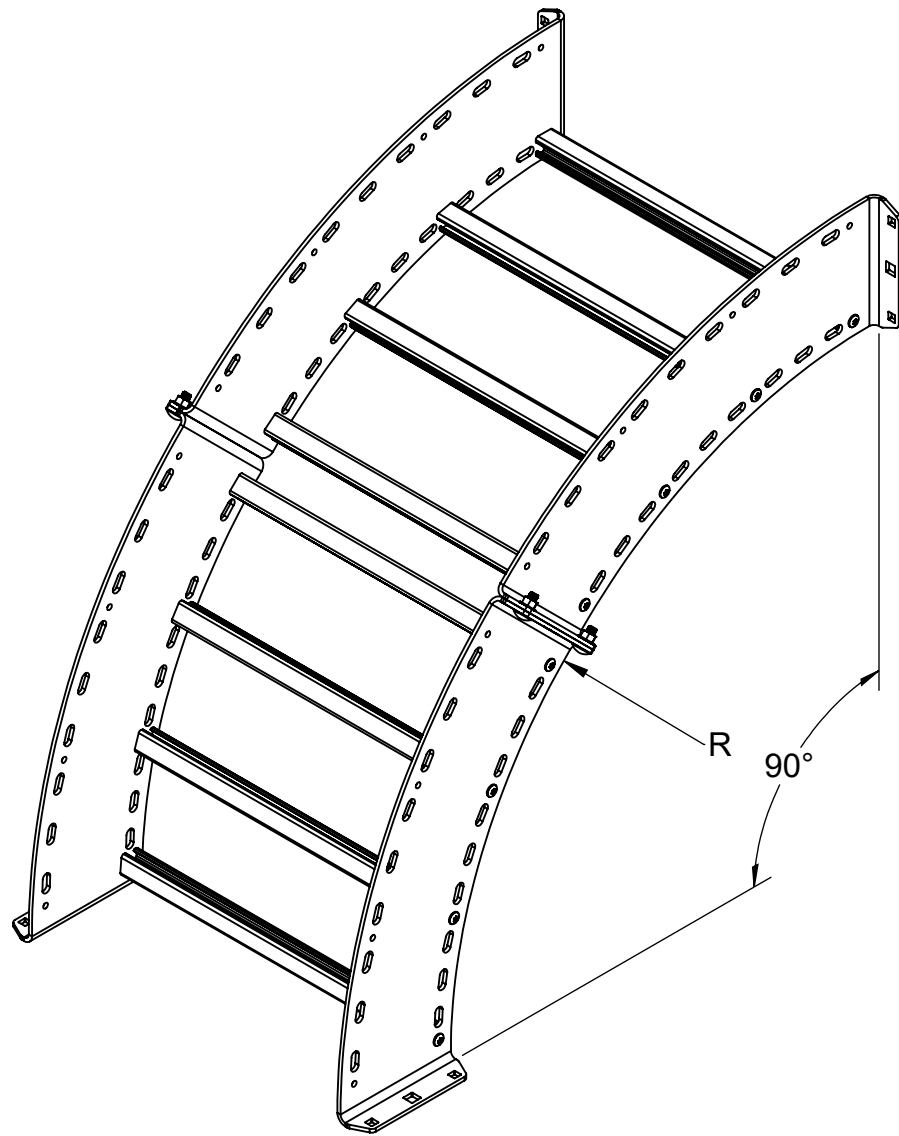
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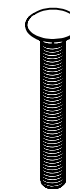


SECTION VIEW

**TTF - 6 X 06 - 90 VO 12 - AL**

<p><b>SERIES</b> TTF = TOUGHTray FITTING</p>	<p><b>NOMINAL HEIGHT (H)</b> 6 = 6"</p>	<p><b>NOMINAL WIDTH (W)</b> 06 = 6" 09 = 9" 12 = 12" 18 = 18" 24 = 24" 30 = 30" 36 = 36"</p>	<p><b>ANGLE</b> 90 = 90°</p>	<p><b>TYPE</b> VO = VERTICAL OUTSIDE BEND</p>	<p><b>RADIUS (R)</b> 12 = 12" 24 = 24" 36 = 36"</p>	<p><b>MATERIAL</b> AL = ALUMINUM</p>
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**HARDWARE INCLUDED:**



- (8EA) TA38SNCB300-S6  
3/8 X 3.0" SQUARE NECK CARRIAGE BOLT



- (8EA) TA38FNHX-S6  
3/8 SERRATED FLANGE HEX NUT

**PATENT PENDING**

**NOTES:**

- 1) DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE NOTED.
- 2) ALL DIMENSIONS SHOWN ARE NOMINAL.
- 3) CONTACT CT INNOVATIONS FOR OTHER SIZE OPTIONS.

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	TITLE: <b>6" HEIGHT TTF SERIES 90° VERTICAL OUTSIDE BEND</b>		
	DRAWN BY/DATE: LW 18AUG2023	SIZE: <b>B</b>	DWG. NO.: <b>CTI-S45991</b>
APPROVED BY/DATE: JDG 18AUG2023	SCALE: <b>NTS</b>	CAD FILE NAME: 90deg VO CAD SAVE DATE: Tuesday, August 22, 2023 3:38:56 PM	SHEET: <b>1 OF 1</b>

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