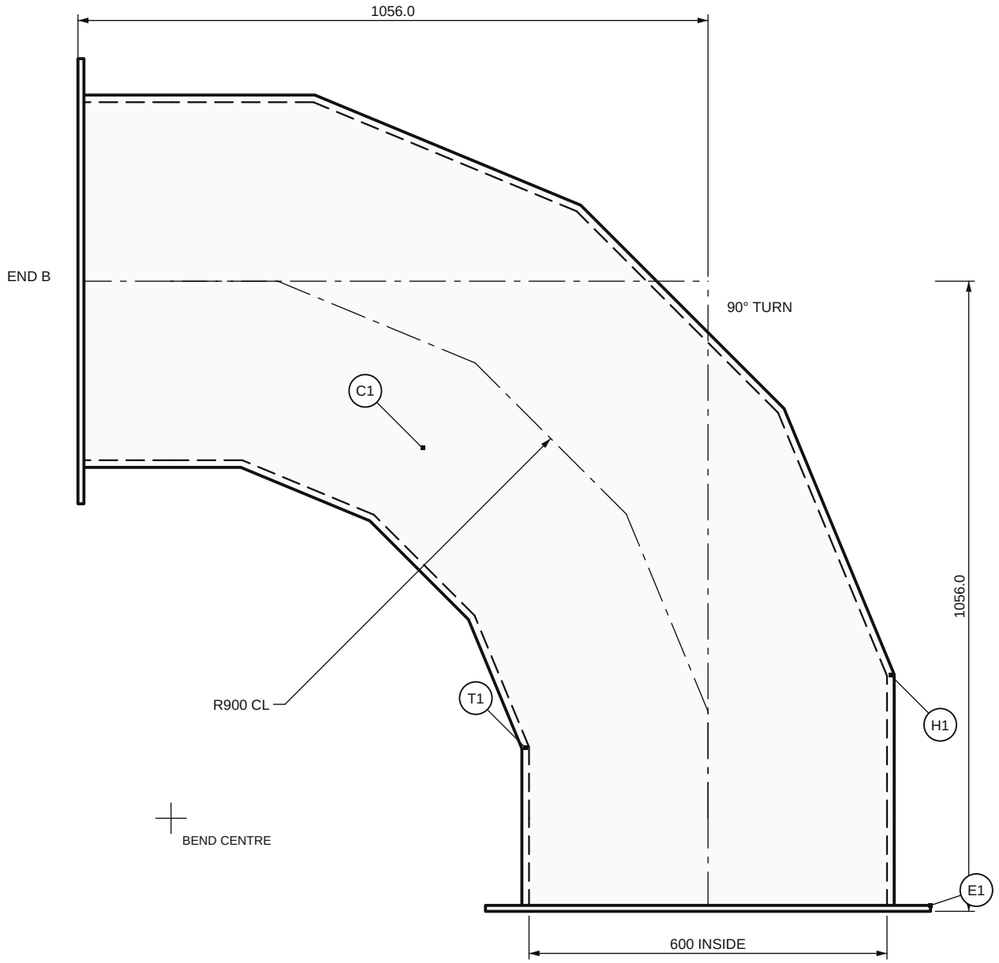
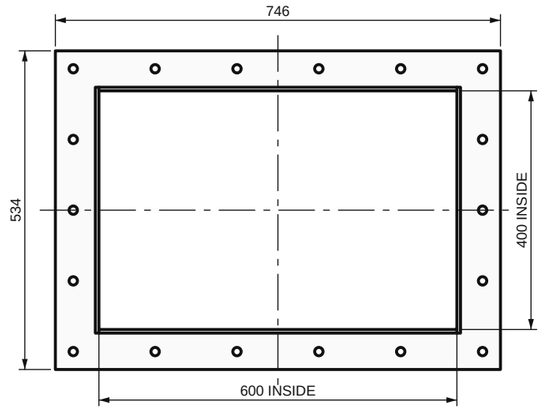


ELEVATION IN THE BEND PLANE

SCALE 1:10



END VIEW ON FLANGE (END A OR B)

SCALE 1:10

BILL OF MATERIAL

LINE	QTY	PC MARK	DESCRIPTION	LENGTH	REMARKS	WEIGHT kg
1	ONE	CB1	CHUTE BEND ASSEMBLY		SEE RS2001-07	188.5
2	2	C1	PL6 CHEEK	1362	TURN ONE OVER	101.8
3	1	H1	PL6 x 400 HEEL WRAPPER	2214.3	4 FOLDS, SEE RS2001-04	41.7
4	1	T1	PL6 x 400 THROAT WRAPPER	1250.0	4 FOLDS, SEE RS2001-04	23.6
5	2	E1	PL10 FLANGE 746 x 534	—	18-Ø14 HOLES	21.4

TOTAL WEIGHT: 188.5 kg

INSIDE WIDTH	600	**INSIDE DEPTH**	400
CENTRELINE RADIUS	900	**TURN**	90°
PIECES	5 (4 JOINTS)	**STRAIGHT EACH END**	150
PLATE	6	**FLANGE THICKNESS**	10
FLANGE LAND	60	**BOLT HOLES**	Ø14
BOLT SPACING, MAX	150	**CENTRE TO FLANGE FACE**	1056.0

THIS DRAWING TO BE READ TOGETHER WITH RS2001-02 GENERAL NOTES.

SAMPLE
NOT FOR CONSTRUCTION

UNITS	**MILLIMETRES**
STEEL	PER NOTE 2.0
ELECTRODES	E49XX (E70XX) UNO
WELDS	SIZE BY ENGINEER
OPEN HOLES	Ø14 UNO
BOLTS	BY PURCHASER
FINISH	BY PURCHASER

REV	DATE	DESCRIPTION	INITIAL
A	9 Nov 2026	ISSUED FOR REVIEW (SAMPLE)	RS

DESIGNED	DRAWN	CHECKED
—	RS 9 Nov 2026	RS 9 Nov 2026

RUTHEN SYSTEMS
DRAFTING · ruthensystems.com

ORIGINAL SIGNED AND SEALED BY

TITLE
CHUTE BEND — GENERAL ARRANGEMENT

APPROVED BY

DRAWING NUMBER · SHEET · REV
RS2001-01 · 1 OF 7 · A

NOTES

1.0 GENERAL

- THE PURCHASER MUST RETAIN A LICENSED PROFESSIONAL ENGINEER TO REVIEW THESE DRAWINGS FOR THE INTENDED USE (CONTENTS, FLOW, IMPACT AND WEAR, LOADS, SUPPORTS, ACCESS) BEFORE FABRICATION. PLATE THICKNESSES AND WELDS HAVE NOT BEEN SIZED FOR ANY LOAD.
- THIS DRAWING SET SHOWS A SEGMENTED RECTANGULAR BEND OF 5 PIECES: TWO FLAT CHEEKS (C1), A HEEL WRAPPER (H1) AND A THROAT WRAPPER (T1) FORMED AT EACH JOINT, AND AN END FLANGE (E1) ON EACH LEG. READ ALL SHEETS TOGETHER.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS.
- WRAPPER LENGTHS AND FOLD POSITIONS ARE AT MID-THICKNESS WITH SHARP FOLDS. FOR THICK PLATE ADD THE SHOP'S OWN BEND ALLOWANCE.
- CUT FROM THE DXF FILES AT 1:1.

2.0 MATERIALS

- C1, H1, T1: MILD STEEL PLATE, 6 mm. E1: MILD STEEL PLATE, 10 mm.
- STEEL GRADE, WEAR LINERS AND THEIR FIXINGS TO BE SPECIFIED BY THE PURCHASER, E.G. CSA G40.21 300W OR ASTM A36 PLATE.
- FLANGE BOLTS, NUTS, WASHERS AND GASKETS BY PURCHASER TO SUIT THE MATING EQUIPMENT.

3.0 FABRICATION

- LASER OR PLASMA CUT FROM THE DXF FILES. REMOVE BURRS AND SLAG. MARK EACH PART WITH ITS PIECE MARK.
- H1, T1: SHOP FORM ON THE BEND LINES, 22.50° AT EACH, SEE RS2001-04.
- THE CHEEKS STAND PROUD OF THE WRAPPERS BY 6 FOR THE OUTSIDE FILLET WELDS.
- WELDING IN ACCORDANCE WITH CSA W59 BY A FABRICATOR HOLDING CSA W47.1 CERTIFICATION, OR TO THE PURCHASER'S WELDING STANDARD. WELD SIZES BY THE RESPONSIBLE ENGINEER.

4.0 FINISH

- CLEAN ALL WELDS. FINISH BY PURCHASER: HOT-DIP GALVANIZE AFTER FABRICATION TO CSA G164, OR PAINT SYSTEM AS SPECIFIED.

5.0 CHECKS

- CHECK INSIDE SIZE 600 x 400 AT BOTH ENDS AND EQUAL DIAGONALS; TURN 90° BETWEEN THE FLANGE FACES; CENTRE TO FLANGE FACE 1056.0 ON EACH LEG; FLANGES FLAT AND SQUARE TO THEIR LEG.
- TOLERANCES TO BE AGREED BETWEEN PURCHASER AND FABRICATOR.

6.0 DESIGN BASIS

- SIZES: INSIDE 600 x 400; CENTRELINE RADIUS 900; TURN 90° IN 5 PIECES, EACH JOINT 22.50°; STRAIGHT 150 ON EACH END PIECE; FLANGE LAND 60, 18-Ø14 HOLES AT 150 MAX.
- NOT INCLUDED: LOADS, MATERIAL FLOW AND IMPACT, WEAR LINERS, SUPPORTS AND HANGERS, INSPECTION DOORS, DUST SEALING, GUARDING, OR OTHER REGULATORY REQUIREMENTS.
- FLAT PATTERNS, CUT FILES AND THESE SHEETS ARE PRODUCED FROM THE SAME GEOMETRY.

SAMPLE
NOT FOR CONSTRUCTION

UNITS	**MILLIMETRES**
STEEL	PER NOTE 2.0
ELECTRODES	E49XX (E70XX) UNO
WELDS	SIZE BY ENGINEER
OPEN HOLES	Ø14 UNO
BOLTS	BY PURCHASER
FINISH	BY PURCHASER

REV	DATE	DESCRIPTION	INITIAL
A	9 Nov 2026	ISSUED FOR REVIEW (SAMPLE)	RS

DESIGNED	DRAWN	CHECKED
—	RS 9 Nov 2026	RS 9 Nov 2026

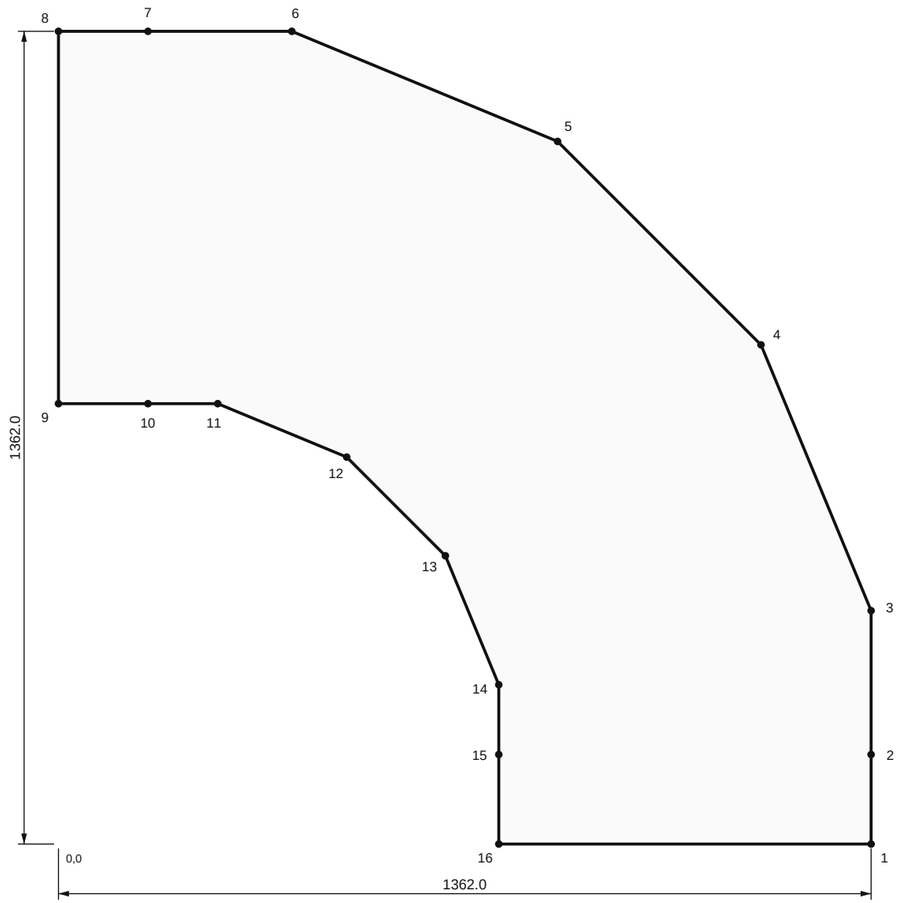
RUTHEN SYSTEMS
DRAFTING · ruthensystems.com

ORIGINAL SIGNED AND SEALED BY

TITLE
CHUTE BEND — GENERAL NOTES

APPROVED BY

DRAWING NUMBER · SHEET · REV
RS2001-02 · 2 OF 7 · A



C1 — CHEEK (QTY 2, TURN ONE OVER)

SCALE 1:10 · PL6

ORDINATES FROM 0,0

PT	X	Y
1	1362.0	0.0
2	1362.0	150.0
3	1362.0	391.1
4	1177.5	836.5
5	836.5	1177.5
6	391.1	1362.0
7	150.0	1362.0
8	0.0	1362.0
9	0.0	738.0
10	150.0	738.0
11	267.0	738.0
12	483.1	648.5
13	648.5	483.1
14	738.0	267.0
15	738.0	150.0
16	738.0	0.0

POINTS 1 TO 8 ARE THE HEEL EDGE, 9 TO 16 THE THROAT EDGE. EVERY KINK IS A JOINT: THE WRAPPER FOLDS LAND THERE.

CUT FILE: RS2001-101_A_cheek.dxf

SAMPLE
NOT FOR CONSTRUCTION

UNITS	**MILLIMETRES**
STEEL	PER NOTE 2.0
ELECTRODES	E49XX (E70XX) UNO
WELDS	SIZE BY ENGINEER
OPEN HOLES	Ø14 UNO
BOLTS	BY PURCHASER
FINISH	BY PURCHASER

REV	DATE	DESCRIPTION	INITIAL
A	9 Nov 2026	ISSUED FOR REVIEW (SAMPLE)	RS

DESIGNED	DRAWN	CHECKED
—	RS 9 Nov 2026	RS 9 Nov 2026

RUTHEN SYSTEMS

DRAFTING · ruthensystems.com

ORIGINAL SIGNED AND SEALED BY

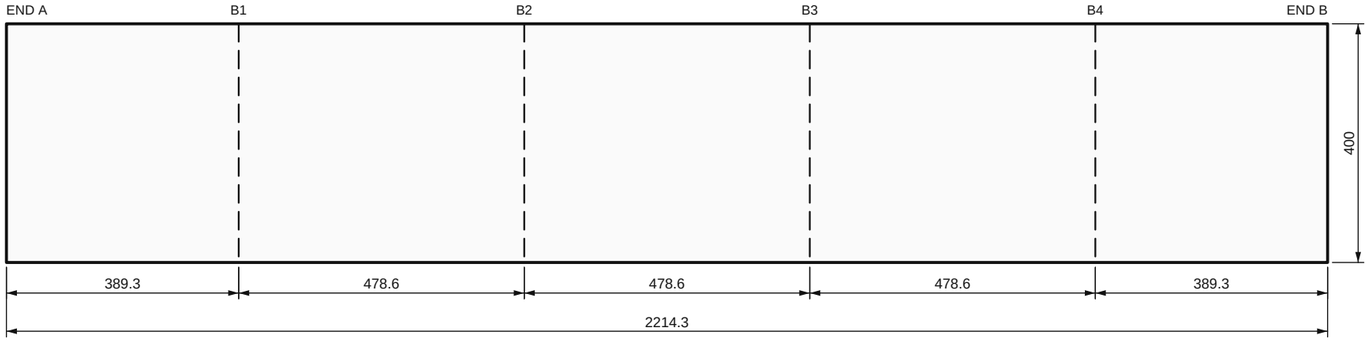
TITLE

CHUTE BEND — C1 CHEEK

APPROVED BY

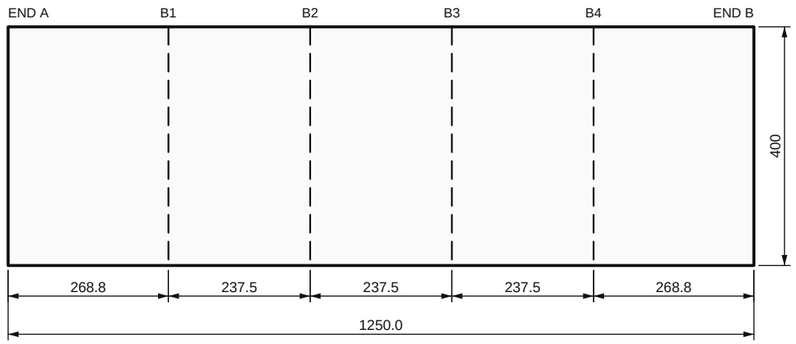
DRAWING NUMBER · SHEET · REV

RS2001-03 · 3 OF 7 · A



DEVELOPED VIEW: H1 HEEL WRAPPER

SCALE 1:10



DEVELOPED VIEW: T1 THROAT WRAPPER

SCALE 1:10

BEND TABLE

LINE	H1 FROM END A	T1 FROM END A	BEND
B1	389.3	268.8	22.50°
B2	867.9	506.3	22.50°
B3	1346.5	743.8	22.50°
B4	1825.0	981.3	22.50°

BEND FROM FLAT. ALL BENDS ON ONE STRIP GO THE SAME WAY.

FORMING NOTES

1. MARK THE BEND LINES FROM END A; DIMENSIONS ARE AT MID-THICKNESS.
2. H1: SHOP BEND WITH THE CHUTE'S OUTSIDE FACE ON THE OUTSIDE OF EACH FOLD. T1: WITH THE OUTSIDE FACE ON THE INSIDE OF EACH FOLD.
3. SMALLEST INSIDE RADIUS THE TOOLING GIVES. CHECK EACH FOLD WITH A TEMPLATE OFF THE CHEEK (C1) BETWEEN ITS KINKS.
4. BOTH STRIPS ARE 400 WIDE AND FIT BETWEEN THE CHEEKS.

H1 LENGTH	2214.3
T1 LENGTH	1250.0
FOLDS	4 x 22.50°
CUT FILES	RS2001-102_A_heel-wrapper.dxf, RS2001-103_A_throat-wrapper.dxf

SAMPLE
NOT FOR CONSTRUCTION

UNITS
MILLIMETRES

STEEL
PER NOTE 2.0

ELECTRODES
E49XX (E70XX) UNO

WELDS
SIZE BY ENGINEER

OPEN HOLES
Ø14 UNO

BOLTS
BY PURCHASER

FINISH
BY PURCHASER

REV	DATE	DESCRIPTION	INITIAL
A	9 Nov 2026	ISSUED FOR REVIEW (SAMPLE)	RS

DESIGNED — | DRAWN RS 9 Nov 2026 | CHECKED RS 9 Nov 2026

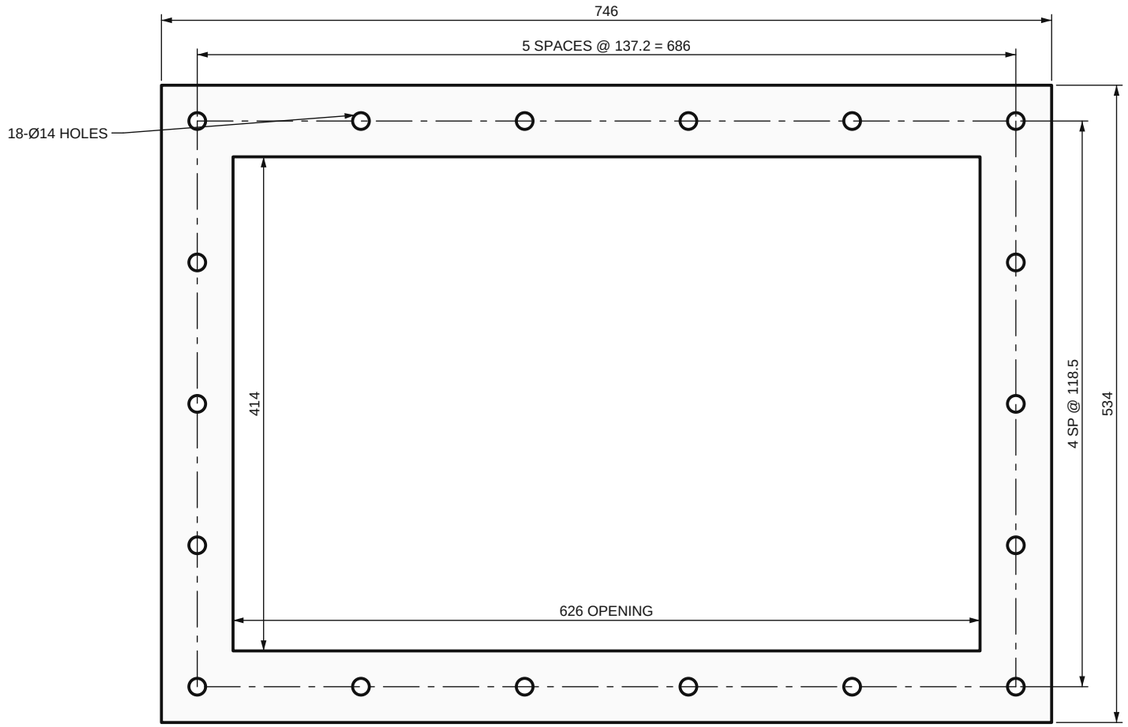
RUTHEN SYSTEMS
DRAFTING · ruthensystems.com

ORIGINAL SIGNED AND SEALED BY

TITLE
CHUTE BEND — H1, T1 WRAPPERS — DEVELOPED VIEWS AND FORMING

APPROVED BY

DRAWING NUMBER · SHEET · REV
RS2001-04 · 4 OF 7 · A



E1 — END FLANGE (QTY 2)

SCALE 1:5 · PL10

E1 FLANGE

OUTSIDE	746 x 534
OPENING	626 x 414
BOLT LINE	686 x 474
HOLES	18-Ø14
SPACING, LONG SIDE	5 @ 137.2
SPACING, SHORT SIDE	4 @ 118.5

THE OPENING CLEARS THE CHUTE'S OUTSIDE (CHEEKS INCLUDED) BY 1 A SIDE. THE LONG SIDE OF THE OPENING LIES IN THE BEND PLANE.

GRIND THE CORNER WELDS W1, W2 FLUSH WHERE THE FLANGE SLIDES ON.

MATCH THE HOLES TO THE MATING EQUIPMENT BEFORE CUTTING; CHANGE THE SPACING IN THE GENERATOR IF THEY DIFFER.

CUT FILE: RS2001-104_A_end-flange.dxf

SAMPLE
NOT FOR CONSTRUCTION

UNITS	**MILLIMETRES**
STEEL	PER NOTE 2.0
ELECTRODES	E49XX (E70XX) UNO
WELDS	SIZE BY ENGINEER
OPEN HOLES	Ø14 UNO
BOLTS	BY PURCHASER
FINISH	BY PURCHASER

REV	DATE	DESCRIPTION	INITIAL
A	9 Nov 2026	ISSUED FOR REVIEW (SAMPLE)	RS

DESIGNED	DRAWN	CHECKED
—	RS 9 Nov 2026	RS 9 Nov 2026

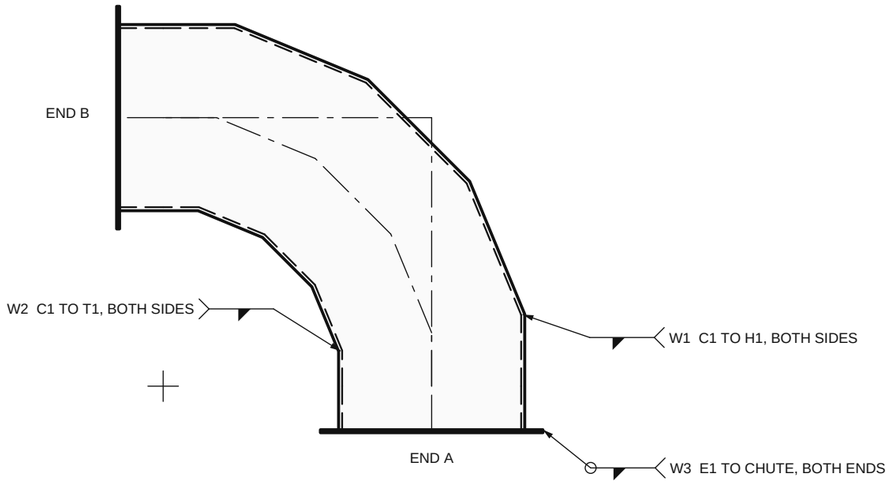
RUTHEN SYSTEMS
DRAFTING · ruthensystems.com

ORIGINAL SIGNED AND SEALED BY

TITLE
CHUTE BEND — E1 END FLANGE

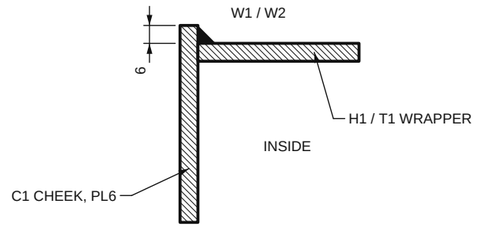
APPROVED BY

DRAWING NUMBER · SHEET · REV
RS2001-05 · 5 OF 7 · A



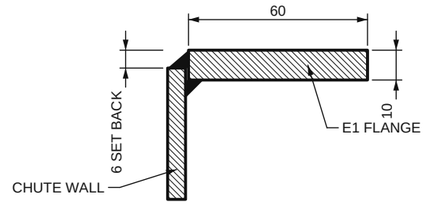
WELD LOCATIONS

SCALE 1:20



CORNER DETAIL (W1, W2)

NO SCALE



FLANGE TO CHUTE DETAIL (W3)

NO SCALE

WELD LIST

MARK	LOCATION	JOINT	WELD	SEQ
W1	C1 TO H1, BOTH CHEEKS, FULL LENGTH	CORNER	FILLET, OUTSIDE	1
W2	C1 TO T1, BOTH CHEEKS, FULL LENGTH	CORNER	FILLET, OUTSIDE	1
W3	E1 TO CHUTE, BOTH ENDS, ALL AROUND: BACK FACE AND INSIDE THE OPENING AT THE FACE	TEE	FILLET	2

NOTES

1. SHADED AREAS TO BE WELDED. DETAILS ARE SCHEMATIC; WELD SIZES BY THE RESPONSIBLE ENGINEER.
2. WELDING IN ACCORDANCE WITH CSA W59 BY A FABRICATOR HOLDING CSA W47.1 CERTIFICATION, OR TO THE PURCHASER'S WELDING STANDARD.
3. TACK BOTH WRAPPERS TO ONE CHEEK LYING FLAT, FIT THE SECOND CHEEK, CHECK SIZES AND DIAGONALS, THEN WELD W1 AND W2 IN SHORT RUNS, ALTERNATING SIDES AND ENDS.
4. FIT E1 ON EACH LEG SQUARE TO THE LEG; CHECK THE TURN BETWEEN THE FACES; WELD W3.
5. WHERE THE CONTENTS FLOW, GRIND THE INSIDE OF THE CORNER JOINTS SMOOTH OR SEAL AS SPECIFIED.

SAMPLE
NOT FOR CONSTRUCTION

UNITS	**MILLIMETRES**
STEEL	PER NOTE 2.0
ELECTRODES	E49XX (E70XX) UNO
WELDS	SIZE BY ENGINEER
OPEN HOLES	Ø14 UNO
BOLTS	BY PURCHASER
FINISH	BY PURCHASER

REV	DATE	DESCRIPTION	INITIAL
A	9 Nov 2026	ISSUED FOR REVIEW (SAMPLE)	RS

DESIGNED	DRAWN	CHECKED
—	RS 9 Nov 2026	RS 9 Nov 2026

RUTHEN SYSTEMS

DRAFTING · ruthensystems.com

ORIGINAL SIGNED AND SEALED BY

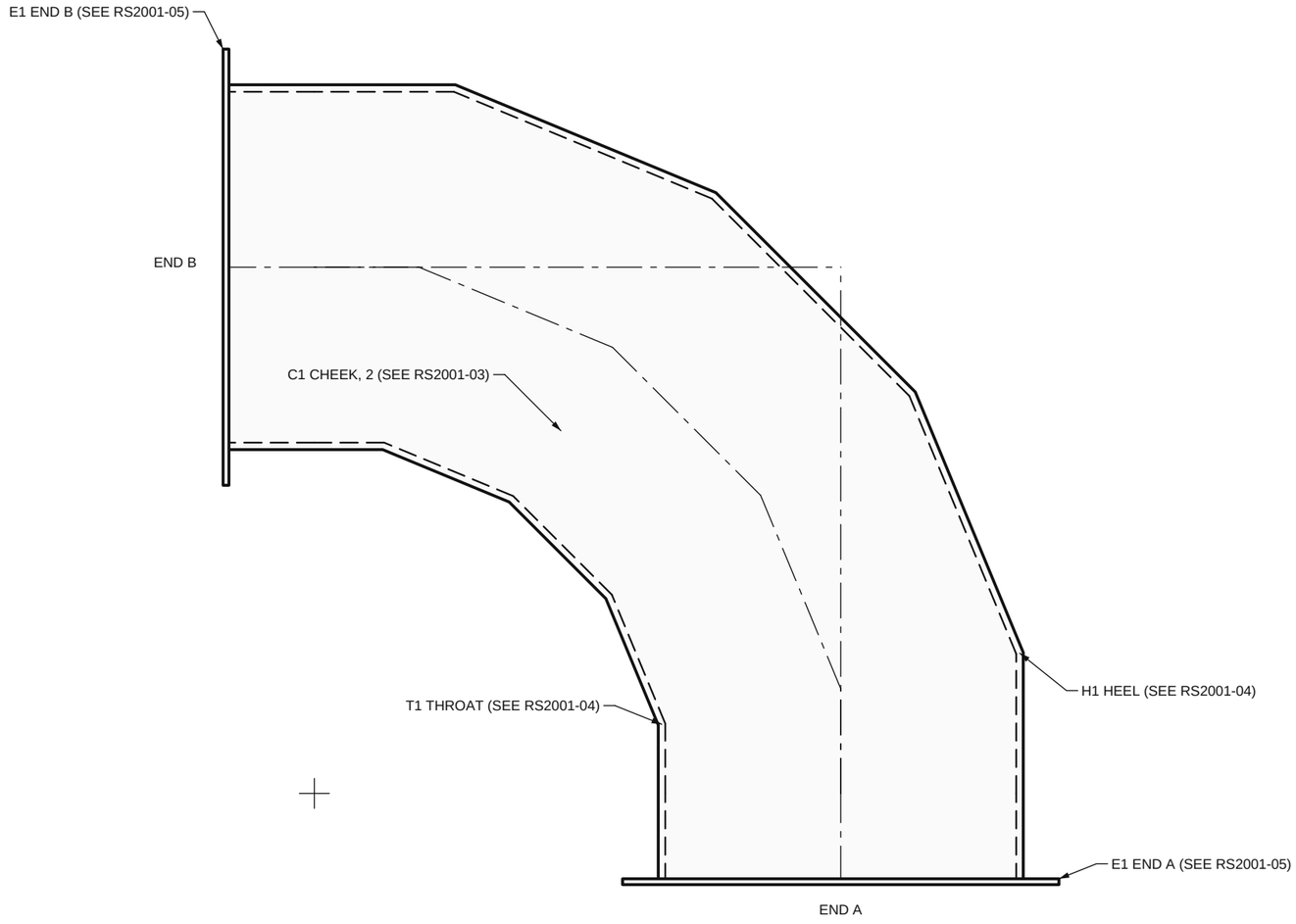
TITLE

CHUTE BEND — WELDING DETAILS

APPROVED BY

DRAWING NUMBER · SHEET · REV

RS2001-06 · 6 OF 7 · A



ASSEMBLY CB1 — ELEVATION IN THE BEND PLANE

SCALE 1:10

ASSEMBLY CB1

PC MARK	QTY	DESCRIPTION	DETAIL
C1	2	PL6 CHEEK	RS2001-03
H1	1	PL6 x 400 HEEL WRAPPER	RS2001-04
T1	1	PL6 x 400 THROAT WRAPPER	RS2001-04
E1	2	PL10 FLANGE 746 x 534	RS2001-05

ASSEMBLY SEQUENCE

1. FORM H1 AND T1 (4 FOLDS OF 22.50° EACH).
2. LAY ONE C1 FLAT. STAND H1 AND T1 ON IT ALONG ITS EDGES, 6 IN FROM THE EDGE, FOLDS ON THE KINKS; TACK.
3. FIT THE SECOND C1 (TURNED OVER) ON TOP; CHECK THE INSIDE SIZE 600 x 400 AT BOTH ENDS AND THE DIAGONALS; TACK.
4. WELD W1 AND W2 PER THE SEQUENCE ON THE WELD SHEET.
5. GRIND THE CORNER WELDS FLUSH AT THE ENDS. SLIDE E1 ON EACH LEG WITH THE CHUTE END 6 BACK FROM THE FLANGE FACE, SQUARE TO THE LEG; CHECK 1056.0 CENTRE TO FACE AND THE 90° TURN; WELD W3.
6. CLEAN, CHECK PER NOTE 5.0 ON RS2001-02, FINISH PER NOTE 4.0.

WELD MARKS AND DETAILS: SEE RS2001-06.

SAMPLE
NOT FOR CONSTRUCTION

UNITS	**MILLIMETRES**
STEEL	PER NOTE 2.0
ELECTRODES	E49XX (E70XX) UNO
WELDS	SIZE BY ENGINEER
OPEN HOLES	Ø14 UNO
BOLTS	BY PURCHASER
FINISH	BY PURCHASER

REV	DATE	DESCRIPTION	INITIAL
A	9 Nov 2026	ISSUED FOR REVIEW (SAMPLE)	RS

DESIGNED	DRAWN	CHECKED
—	RS 9 Nov 2026	RS 9 Nov 2026

RUTHEN SYSTEMS
DRAFTING · ruthensystems.com

ORIGINAL SIGNED AND SEALED BY

TITLE
CHUTE BEND — ASSEMBLY

APPROVED BY

DRAWING NUMBER · SHEET · REV
RS2001-07 · 7 OF 7 · A