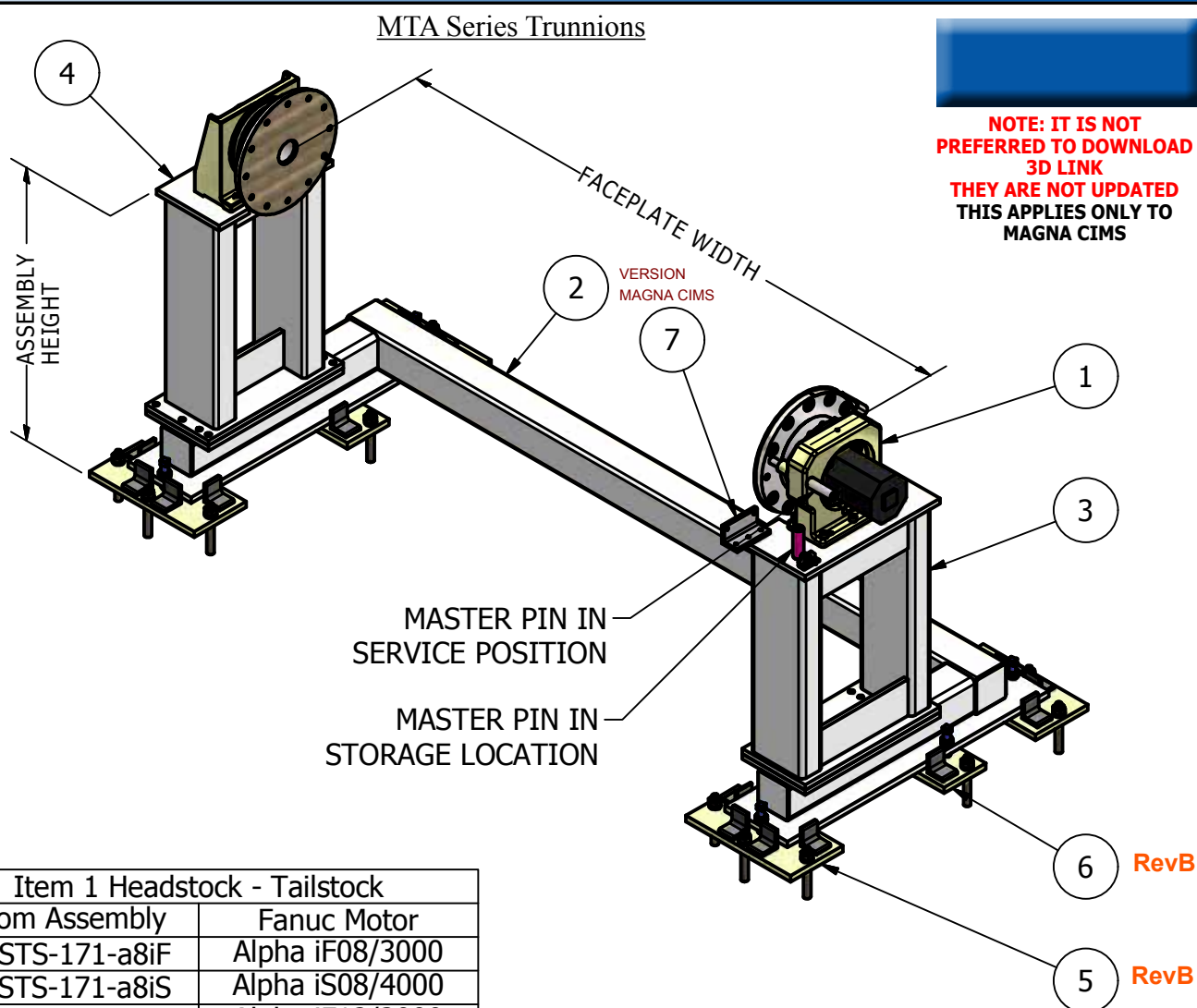


Mechanical**MTA Series Trunnions**

| Item 1 Headstock - Tailstock | |
|------------------------------|-----------------|
| Easom Assembly | Fanuc Motor |
| 16HSTS-171-a8iF | Alpha iF08/3000 |
| 16HSTS-171-a8iS | Alpha iS08/4000 |
| 32HSTS-185-a12iF | Alpha iF12/3000 |
| 32HSTS-185-a12iS | Alpha iS12/4000 |
| 45HSTS-192-a22iF | Alpha iF22/3000 |
| 45HSTS-192-a30iF | Alpha iF30/3000 |

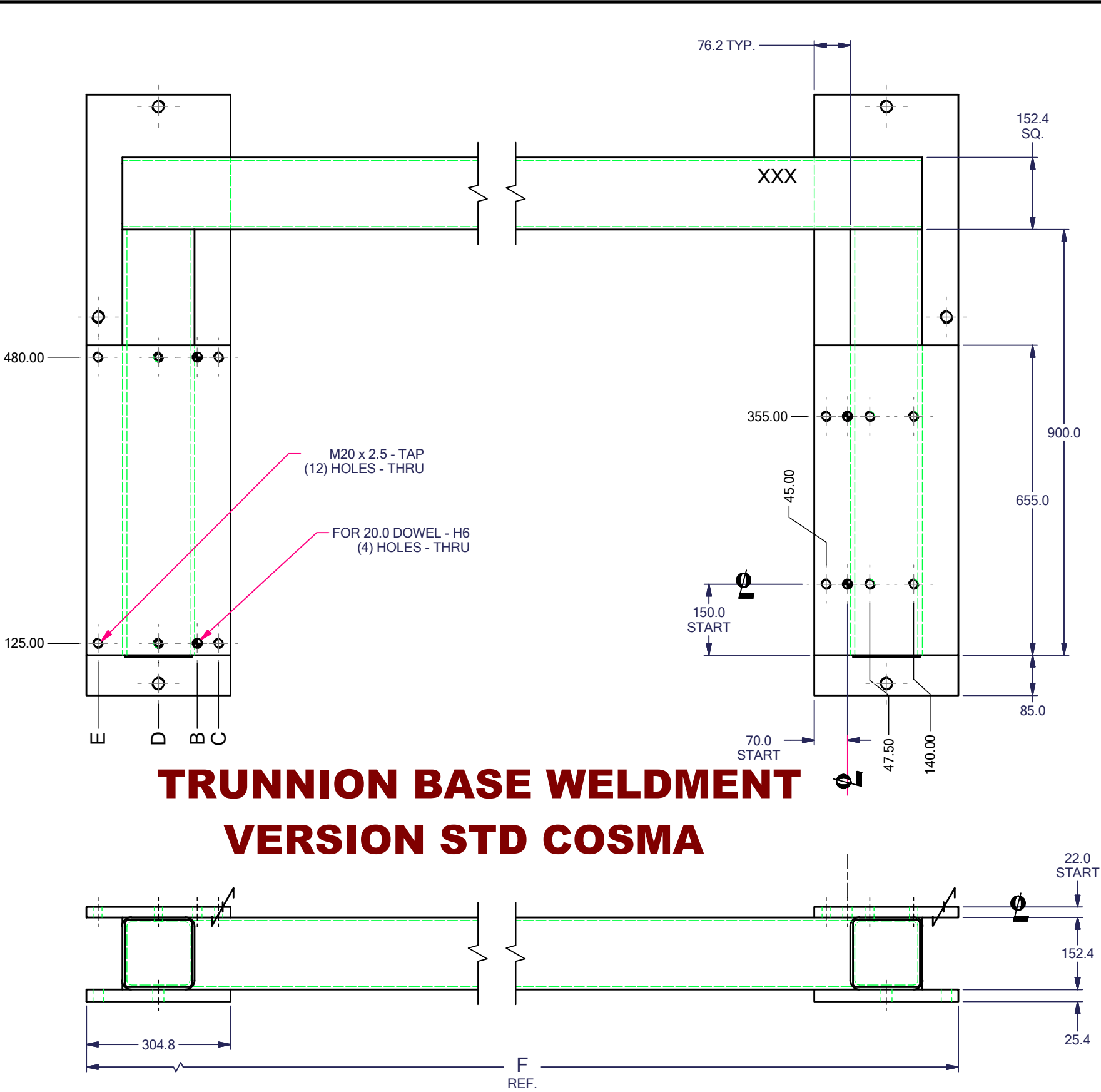
Select Easom unit based on load requirements.
See selection guide sheet for details.

*All applications to be validated by Easom.

| Items 3 & 4 Trunnion Risers | | |
|-----------------------------|-----------------|-----------------|
| Assy Height | Headstock Riser | Tailstock Riser |
| 650mm | V3TR400Y | V3TR400N |
| 800mm | V3TR550Y | V3TR550N |
| 1000mm | V3TR750Y | V3TR750N |
| 1150mm | V3TR900Y | V3TR900N |

| Item 2 Trunnion Base | |
|----------------------|---------------|
| Faceplate Width | Trunnion Base |
| 2000mm | V3TB200X |
| 2500mm | V3TB250X |

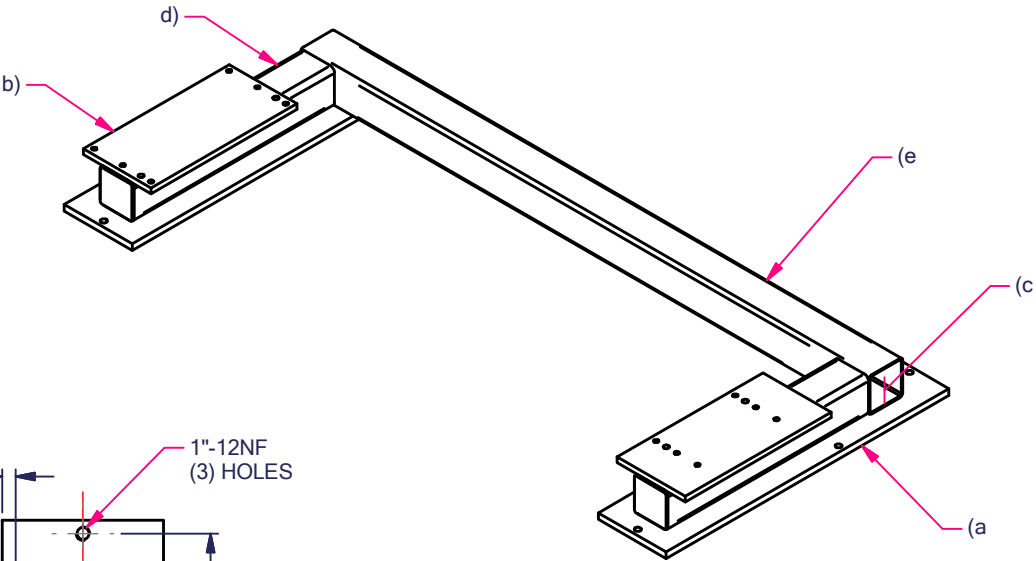
| Item | Qty | Part Number | Description |
|------|-----|-----------------------------|--|
| 1 | 1 | Select One From Above Table | Headstock / Tailstock |
| 2 | 1 | Select One From Above Table | Trunnion Base VERSION STD COSMA (VERSION MAGNA CIMS) |
| 3 | 1 | Select One From Above Table | Headstock Riser |
| 4 | 1 | Select One From Above Table | Tailstock Riser |
| 5 | 4 | V3LA100Y | Levelling Assembly RevB |
| 6 | 2 | V3LA100N | Levelling Assembly RevB |
| 7 | 1 | V3TR101 | Tiedown Bracket (optional) |



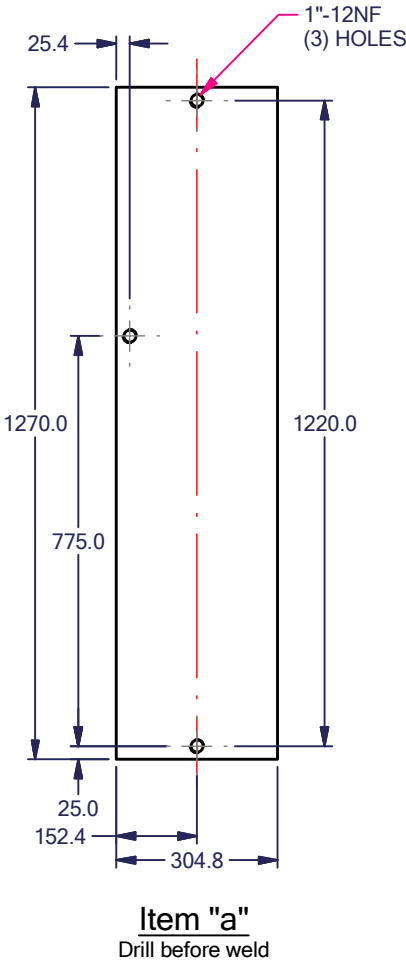
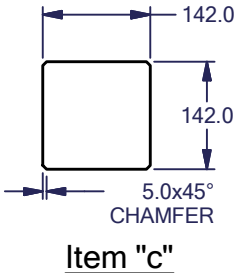
TRUNNION BASE WELDMENT
VERSION STD COSMA

| COSMA CODE | A | B | C | D | E | F |
|------------|--------|---------|--------|--------|--------|--------|
| V3TB200X | 2550.0 | 2233.00 | 2188.0 | 2315.5 | 2443.0 | 2702.6 |
| V3TB250X | 3050.0 | 2733.00 | 2688.0 | 2815.5 | 2943.0 | 3202.6 |


| REVISION HISTORY | | | |
|------------------|-------------|-----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | | 1/12/2010 | |



- WELDMENT & STRESS RELIEVE
- a) 2.- REQ - ASTM-A36 - 1" x 12" x 1270mm LG.
 - b) 2.- REQ - ASTM-A36 - 1" x 12" x 655mm LG.
 - c) 2.- REQ - ASTM-A36 - 3/16" x 142mm x 142mm LG.
 - d) 2.- SQ.- REQ. TUBE.- 6" x 6" x 3/8" W/T x 900mm LG.
 - e) 1.- SQ.- REQ. TUBE.- 6" x 6" x 3/8" W/T x A mm LG.



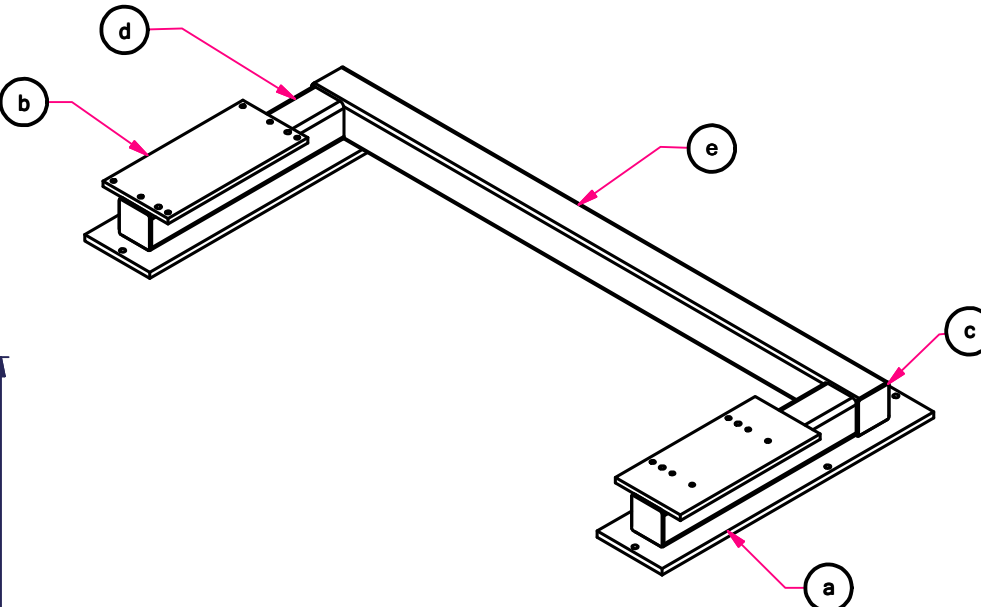
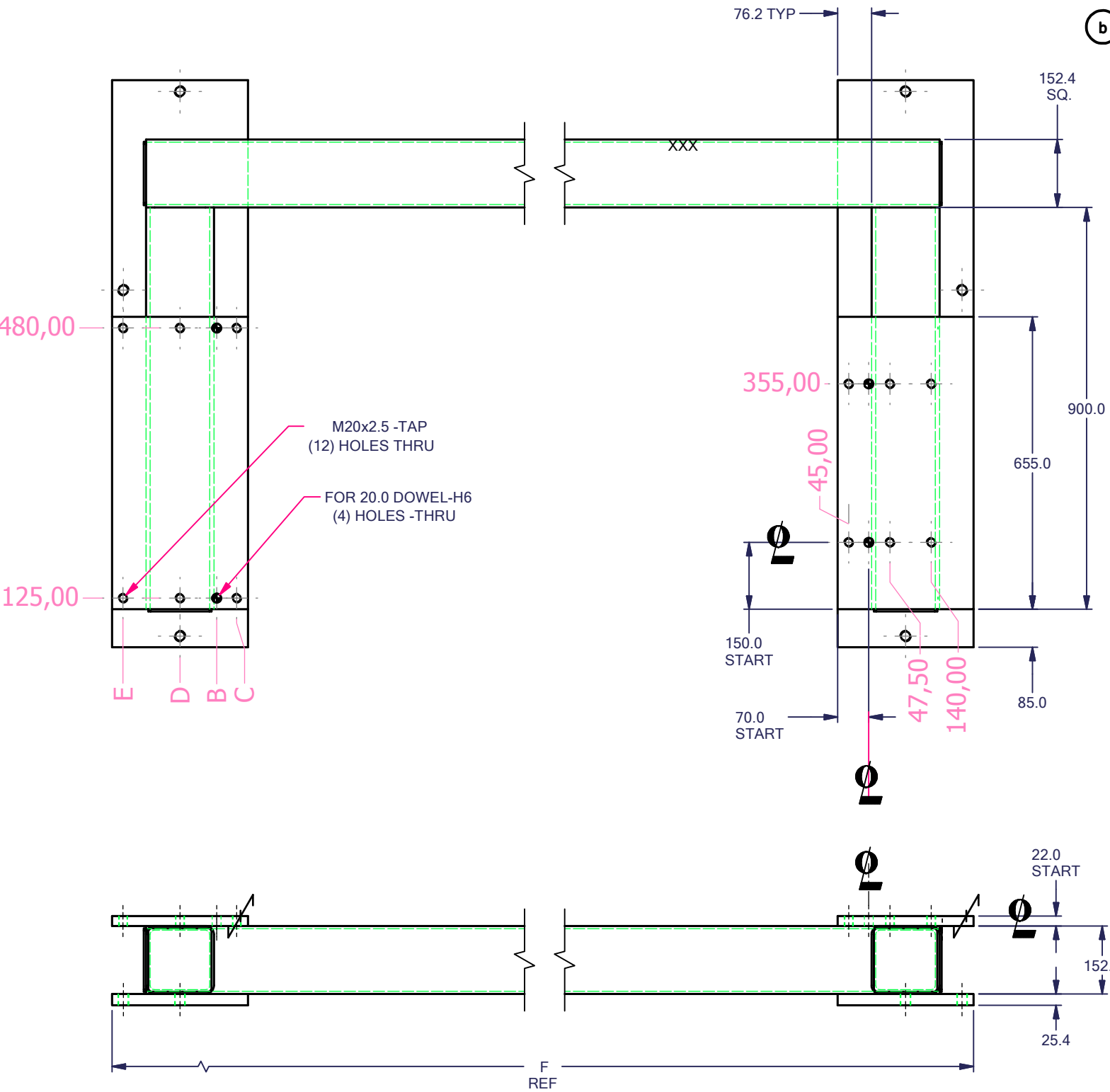
- Tolerances:
- 1 PLACE MACHINING ± 0.3
 - 1 PLACE FABRICATION ± 1.5
 - 2 PLACE ± 0.08 BETWEEN MACHINED SURFACES
 - ± 0.03 BETWEEN SINGLE DOWEL AND A HEEL SURFACE
 - ± 0.03 BETWEEN DOWELS IN THE SAME PLANE
 - ± 0.10 BETWEEN DOWELS IN DIFFERENT PLANES
 - ± 0.13 BETWEEN TO SCREW HOLES, NON ACCUMULATIVE
- NOTES: ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.
IDENTIFY WITH COSMA CODE NUMBER AS SHOWN XXX.

| | | | |
|--|---------------------------------|--|-------------------------|
| DRAWN ricruz | 2/14/2009 |  COSMA INTERNATIONAL 2550 Steeles Avenue East Brampton, ON, Canada | |
| CHECKED | | | |
| APPROVED | | | |
| MATERIAL AS NOTED | TITLE TRUNNION BASE WELDMENT | | |
| FINISH COLOUR: 9001 CREAM (RGB 252 252 240) | | | |
| THIS MATERIAL IS THE PROPERTY OF MAGNA COSMA INTERNATIONAL. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES. | | SIZE B | DWG NO V3TB - SERIES |
| | | SCALE 1 : 10 | 3RD ANGLE PROJECTION |
| | | SHEET 1 OF 1 | |

TRUNNION BASE WELDMENT



VERSION MAGNA CIMS



THIS DRAWING MAY USE BOTH INCH AND METRIC
UNITS OF MEASUREMENT
(*INDICATES INCH DIMENSIONS)

MAXIMUM ALLOWANCE ROUGHNESS OF ALL
METRIC:
1 PLACE mm FINISH DIMENSIONS TO BE 3.2 MICRONS
2 PLACE mm FINISH DIMENSIONS TO BE 1.6 MICRONS
3 PLACE mm FINISH DIMENSIONS TO BE 0.5 MICRONS
ALL GROUND SURFACES TO BE 0.4 MICRONS.
METRIC - EXCEPT AS NOTED TOLERANCES SHALL BE:
1 PLACE MACHINING .03
1 PLACE FABRICATION .15
2 PLACE .08 BETWEEN MACHINED SURFACES
.03 BETWEEN SINGLE DOWEL AND A HEEL SURFACE
.03 BETWEEN DOWELS IN THE SAME PLANE
.10 BETWEEN DOWELS IN DIFFERENT PLANES
.13 TO SCREW HOLES, NON ACCUMULATIVE

ALL O SURFACES MUST BE FINISHED EXCEPT FOR COLD
DRAWN SURFACES.

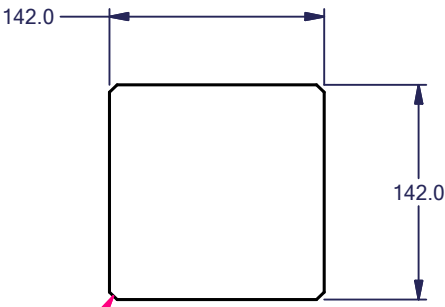
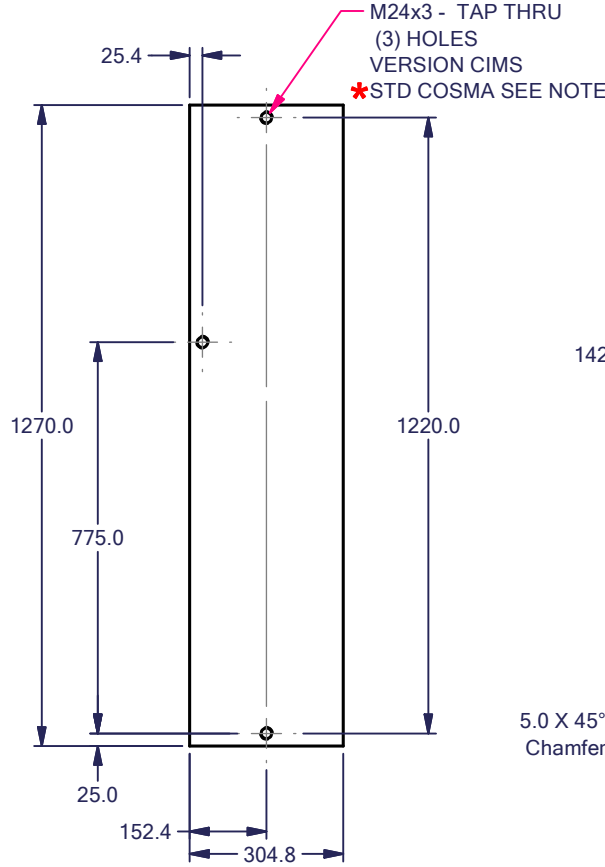
ALL EDGES OF PART CONTACT SURFACES ON LOCATING
BLOCKS AND FINGERS TO HAVE .12R INCH / 3.00 mm
AFTER SPOTTING.

MARK IDENTIFICATION AND MATERIAL NUMBERS ON DETAILS.
PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK.

CRITICAL FEATURES ARE MARKED WITH "**"

| Stock List | | | |
|------------|-----|-------------|------------------------------|
| ITEM | QTY | MATERIAL | DESCRIPTION |
| a | 2 | HRS | 1" X 12"mm X 1270mmLG |
| b | 2 | HRS | 1" X 12"mm X 655mmLG |
| c | 4 | HRS | 3/16" X 142mm X 142mmLG |
| d | 2 | SQUARE TUBE | 6" x 6" X 3/8" W/T X 900mmLG |
| e | 1 | SQUARE TUBE | 6" x 6" X 3/8" W/T X A mmLG |

FINISH:FIXE PART



ITEM "c"

5.0 X 45°
Chamfer


ITEM "a"

Drill before weld

* ONLY FOR VERSION STD COSMA1"-12NF

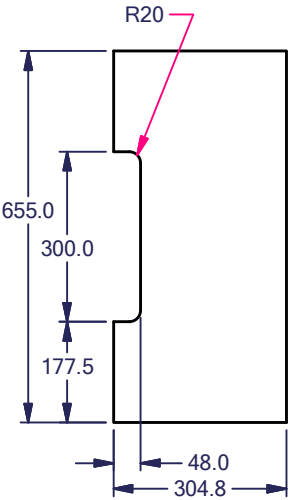
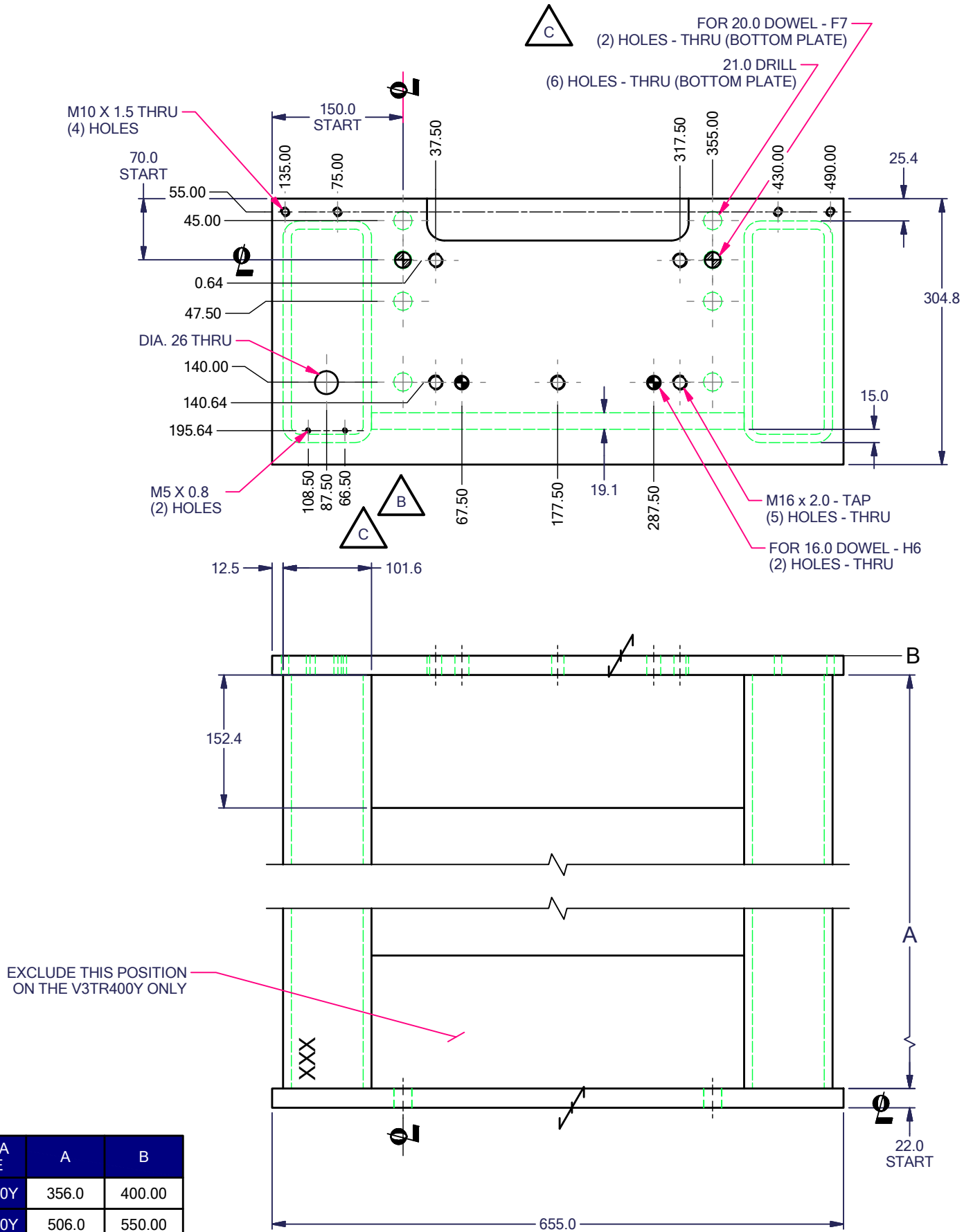
| Table | | | | | | |
|---------------|--------|---------|--------|--------|--------|--------|
| COSMA CODE | A | B | C | D | E | F |
| V3TB200X | 2550.0 | 2233.00 | 2188.0 | 2315.5 | 2443.0 | 2702.6 |
| V3TB250X | 3050.0 | 2733.00 | 2688.0 | 2815.5 | 2943.0 | 3202.6 |

WEIGHT 371.024 kg
WEIGHT 385.177 kg

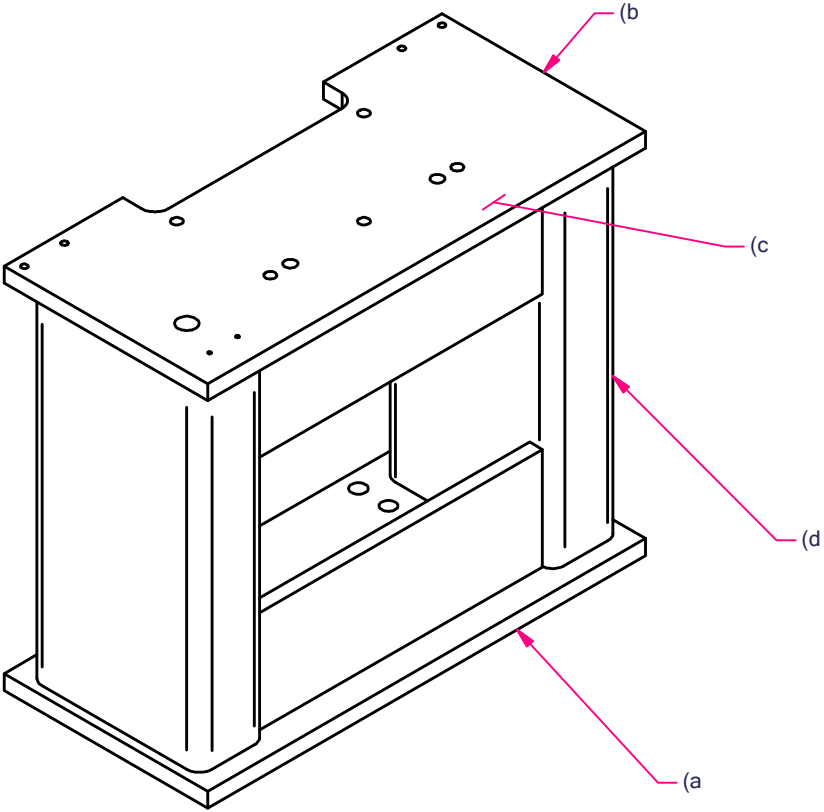
| | | | | | | | | | | | |
|----------------------|--------|----------------------|--|-------------------|-------|----------------------------|------|------------------------|---|----------------|--|
| DESIGNER ST COSMA | | DETAILER ALFLORES | | CHECKER JOVEGA | | EDITION DATE 29-11-2018 | | WEIGHT (KG): AS SHN | | SCALE: NONE | |
| REV | CHANGE | | | | CHK'D | | DATE | |  | | |
| | | | | | | | | | | | |

This document is not a final release, treat as a DRAFT

| REVISION HISTORY | | | |
|------------------|--|------------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | | 1/12/2010 | |
| B | Hole Location Dim 66.5 was 64.0, 108.5 was 111.0 | 11/23/2011 | PH |
| C | Add Dim 87.5, Add Note (BOTTOM PLATE) | 12/7/2011 | PH |





Item "b"

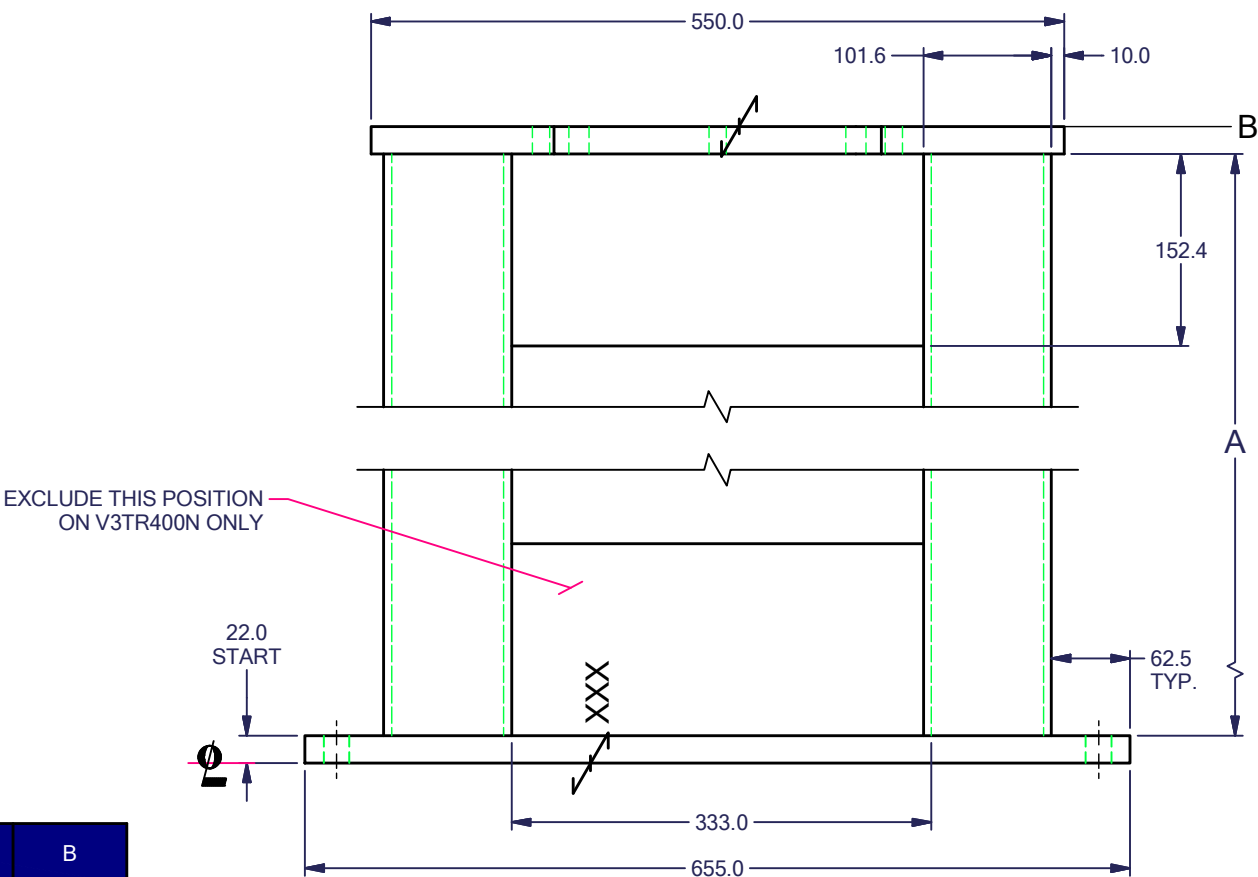
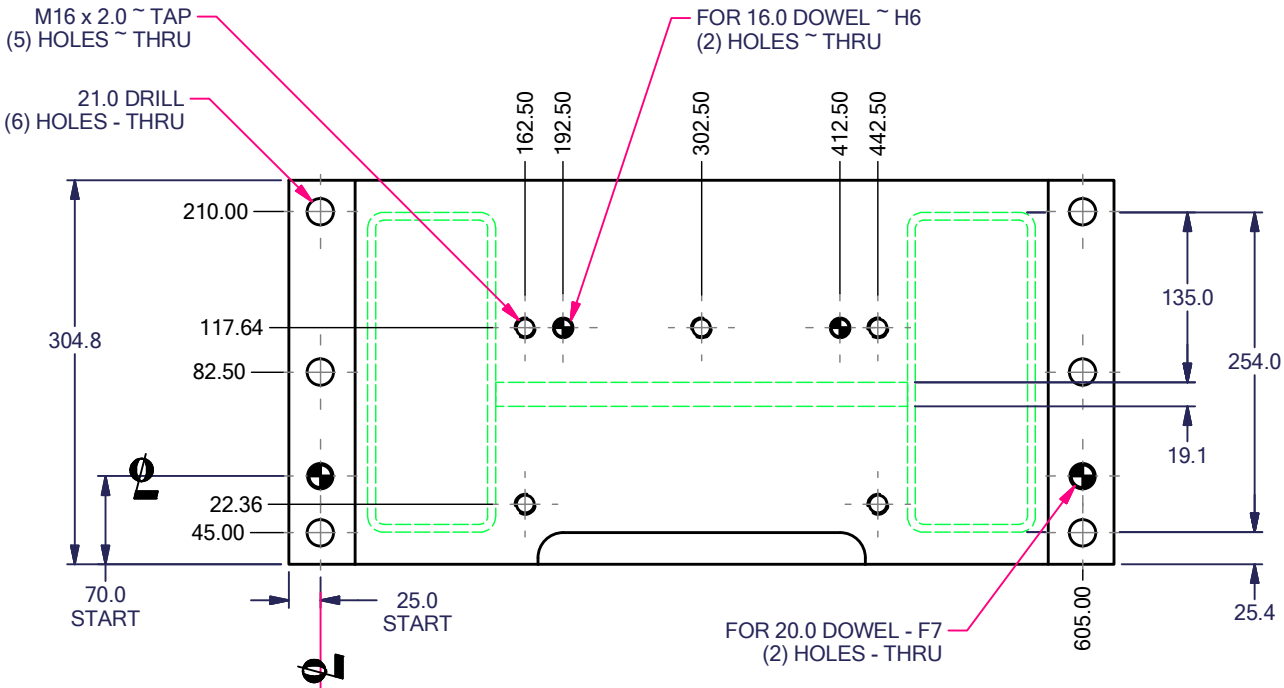


WELDMENT & STRESS RELIEVE
a) 1,- REQ - ASTM-A36 - 1" x 12" x 655mm LG.
b) 1,- REQ - ASTM-A36 - 1" x 12" x 655mm LG.
c) 2,- REQ.- ASTM-A36 - 3/4" x 6" x 427mm LG. *
d) 2,- REQ - RECT. TUBE - 10" x 4" x 3/8" W/T x A mm LG.
* The qty on item "c" should be 1 for V3TR400Y

Tolerances:
1 PLACE MACHINING ± 0.3
1 PLACE FABRICATION ± 1.5
2 PLACE ± 0.08 BETWEEN MACHINED SURFACES
 ± 0.03 BETWEEN SINGLE DOWEL AND A HEEL SURFACE
 ± 0.03 BETWEEN DOWELS IN THE SAME PLANE
 ± 0.10 BETWEEN DOWELS IN DIFFERENT PLANES
 ± 0.13 BETWEEN TO SCREW HOLES, NON ACCUMULATIVE
NOTES: ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.
IDENTIFY WITH COSMA CODE NUMBER AS SHOWN XXX.

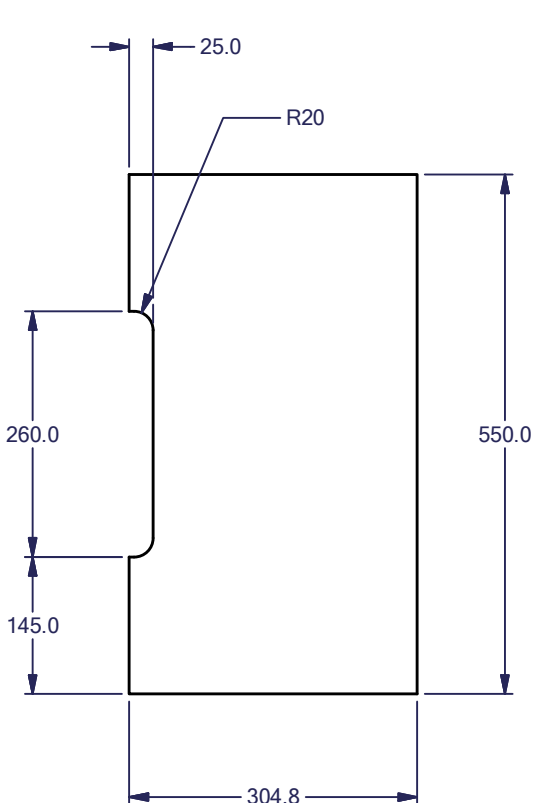
| COSMA CODE | A | B |
|------------|-------|--------|
| V3TR400Y | 356.0 | 400.00 |
| V3TR550Y | 506.0 | 550.00 |
| V3TR750Y | 706.0 | 750.00 |
| V3TR900Y | 856.0 | 900.00 |

| | | | | | |
|--|-----------|--|---|--|--------------|
| DRAWN ricruz | 2/14/2009 | <div> COSMA INTERNATIONAL 2550 Steeles Avenue East Brampton, ON, Canada</div> | | | |
| CHECKED | | TITLE TRUNNION HEADSTOCK RISER | | | |
| APPROVED | | | | | |
| MATERIAL AS NOTED | | | | | |
| FINISH COLOUR: 9001 CREAM (RGB 252 252 240) | | | | | |
| THIS MATERIAL IS THE PROPERTY OF MAGNA COSMA INTERNATIONAL. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES. | | SIZE B | DWG NO V3TR...Y - SERIES | | REV C |
| | | SCALE 1 : 6 |  3RD ANGLE PROJECTION | | SHEET 1 OF 1 |
| | | | | | |

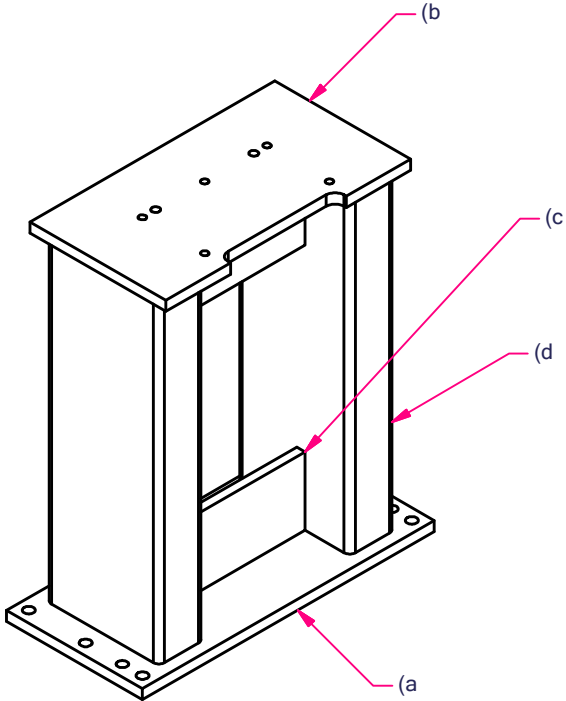


| COSMA CODE | A | B |
|------------|-------|--------|
| V3TR400N | 356.0 | 400.00 |
| V3TR550N | 506.0 | 550.00 |
| V3TR750N | 706.0 | 750.00 |
| V3TR900N | 856.0 | 900.00 |

| REVISION HISTORY | | | |
|------------------|-------------|-----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | | 1/12/2010 | |




Item "b"

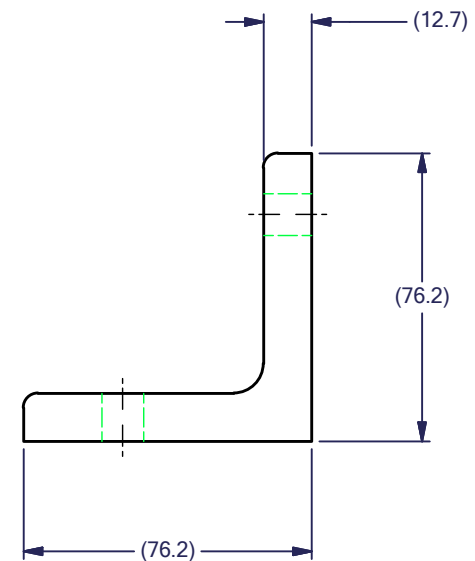
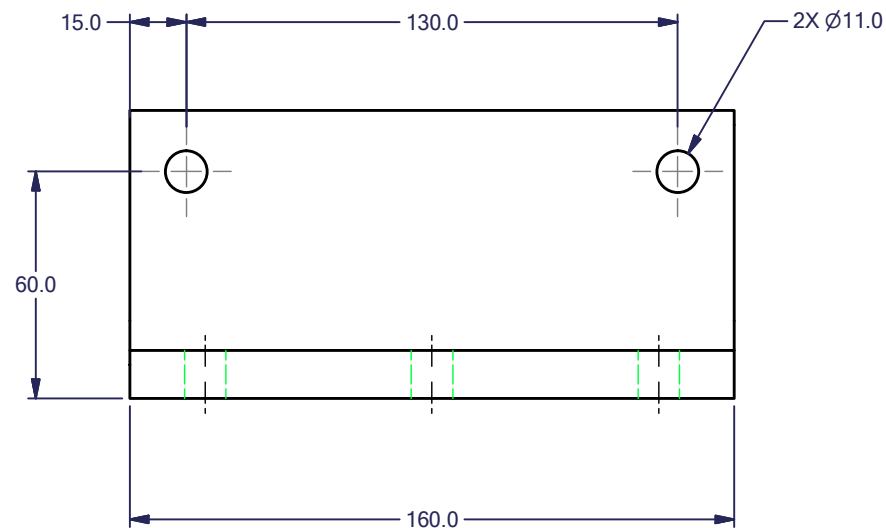
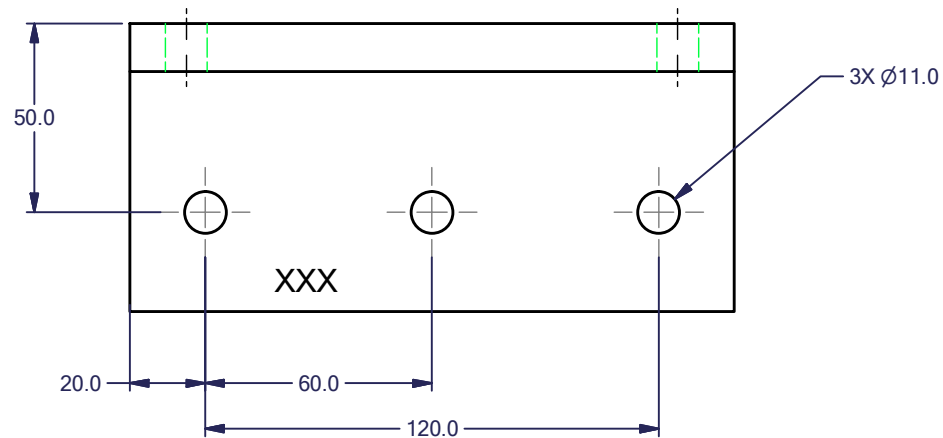


WELDMENT & STRESS RELIEVE
a) 1.- REQ. - ASTM-A36 - 1" x 12" x 655mm LG.
b) 1.- REQ. - ASTM-A36 - 1" x 12" x 550mm LG.
c) 2.- REQ. - ASTM-A36 - 3/4" x 6" x 333 mm LG.*
d) 2.- REQ. - RECT. STEEL TUBE 10" x 4" x 3/8" W/T x A mm LG.
* The qty on item "c" should be 1 for V3TR400N

Tolerances:
1 PLACE MACHINING ±0.3
1 PLACE FABRICATION ±1.5
2 PLACE ±0.08 BETWEEN MACHINED SURFACES
±0.03 BETWEEN SINGLE DOWEL AND A HEEL SURFACE
±0.03 BETWEEN DOWELS IN THE SAME PLANE
±0.10 BETWEEN DOWELS IN DIFFERENT PLANES
±0.13 BETWEEN TO SCREW HOLES, NON ACCUMULATIVE
NOTES: ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.
IDENTIFY WITH COSMA CODE NUMBER AS SHOWN XXX.

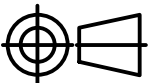

| | | | |
|--|-----------|---|-----------------------------|
| DRAWN ricruz | 2/14/2009 |  | |
| CHECKED | | | |
| APPROVED | | TITLE | |
| MATERIAL AS NOTED | | TRUNNION TAILSTOCK RISER | |
| FINISH COLOR: 9001 CREAM (RGB 252 252 240) | | | |
| THIS MATERIAL IS THE PROPERTY OF MAGNA COSMA INTERNATIONAL. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES. | | SIZE B | DWG NO V3TR...N - SERIES |
| | | SCALE 1:6 | 3RD ANGLE PROJECTION |
| | | SHEET 1 OF 1 | |

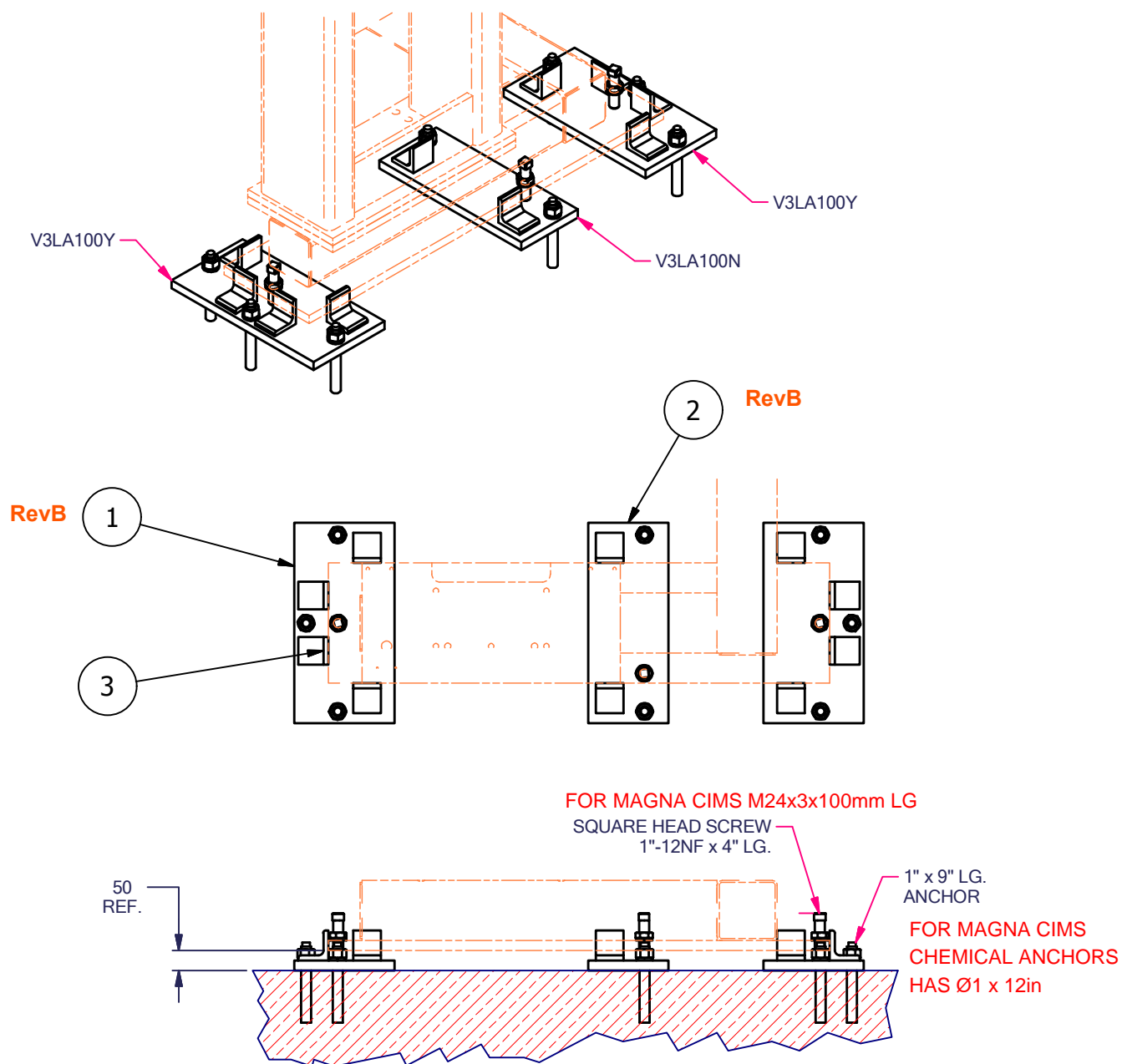
| REVISION HISTORY | | | |
|------------------|-------------|-----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | | 1/12/2010 | |



Tolerances: 1 PLACE ± 0.3
 2 PLACE ± 0.03
 3 PLACE ± 0.020

✓ SURFACES TO BE FLAT, PARALLEL &
 PERPENDICULAR TO Φ WITHIN 0.015 T.I.R.
 NOTES: ALL DIMENSIONS METRIC UNLESS OTHERWISE
 NOTED. IDENTIFY WITH COSMA CODE NUMBER
 AS SHOWN XXX.

| | | | | | | | | | | | |
|--|-------------------|---|--------------|--|------------|------------------|--|--|--|--|--|
| DRAWN ricruz | DATE 2/14/2009 |  3RD ANGLE PROJECTION | |  COSMA INTERNATIONAL 2550 Steeles Avenue East Brampton, ON, Canada | | | | | | | |
| CHECKED | DATE | | | | | | | | | | |
| APPROVED | DATE | TITLE | | | | | | | | | |
| MATERIAL ASTM A36 HRS ANGLE 3" X 3" X 1/2" | | | | | | TIE-DOWN BRACKET | | | | | |
| FINISH COLOUR 9001 CREAM (RGB 252 252 240) | | | | | | | | | | | |
| THIS MATERIAL IS THE PROPERTY OF MAGNA COSMA INTERNATIONAL. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES. | | SIZE A | SCALE 1:2 | DWG NO V3TR101 | SHT 1 OF 1 | REV A | | | | | |

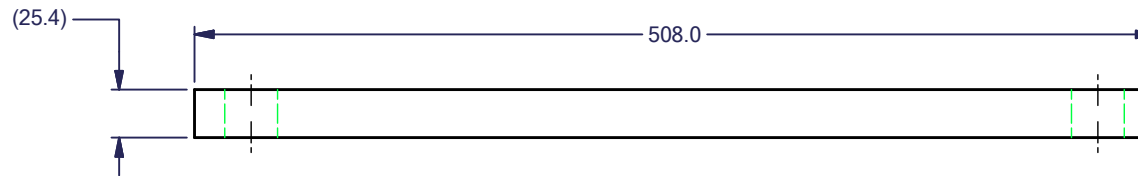
Mechanical**V3LA100Y Leveling Assembly
V3LA100N Leveling Assembly****BOM : V3LA100Y**

| Item | Qty | Part Number | Description |
|------|-----|-------------|------------------------------|
| 1 | 1 | V3LA101Y | Levelling Plate Rev B |
| 3 | 4 | V1LA602X | Weld Angle |

BOM : V3LA100N

| Item | Qty | Part Number | Description RevB |
|------|-----|-------------|-------------------------|
| 2 | 1 | V3LA101N | Levelling Plate |
| 3 | 2 | V1LA602X | Weld Angle |

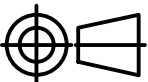

| REVISION HISTORY | | | |
|------------------|--|------------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| B | FOR CIMS THE DRILLS WILL BE 31.75 DAYS | 15-04-2020 | JOVEGA |



RevB
31.75 DIA DRILL
FOR CIMS
Ø30.0 DRILL
(2) HOLES ~ THRU

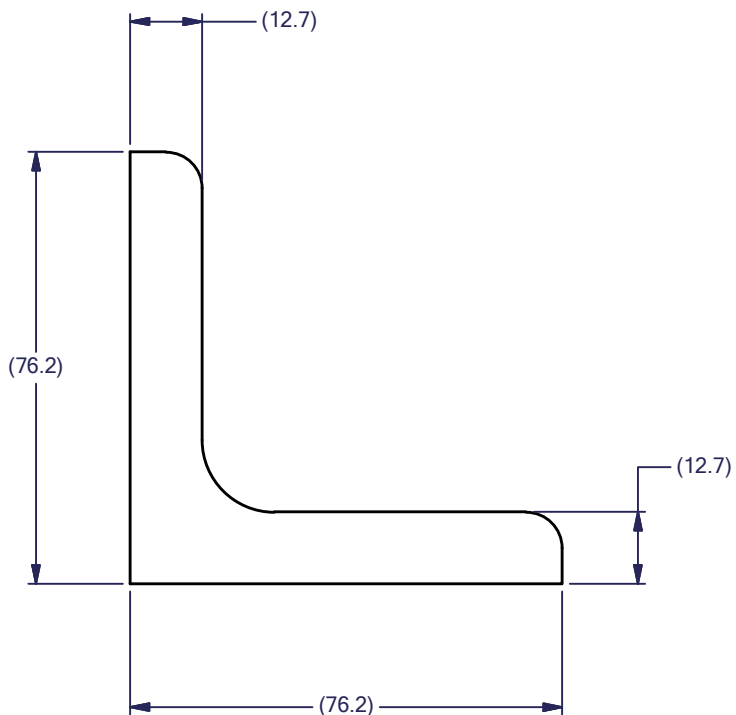
Tolerances: 1 PLACE ± 0.3
2 PLACE ± 0.03
3 PLACE ± 0.020

✓ SURFACES TO BE FLAT, PARALLEL &
PERPENDICULAR TO Φ WITHIN 0.015 T.I.R.
NOTES: ALL DIMENSIONS METRIC UNLESS OTHERWISE
NOTED. IDENTIFY WITH COSMA CODE NUMBER
AS SHOWN XXX.

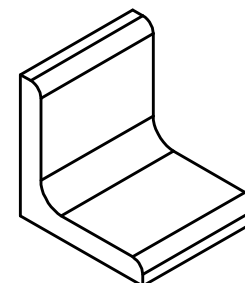
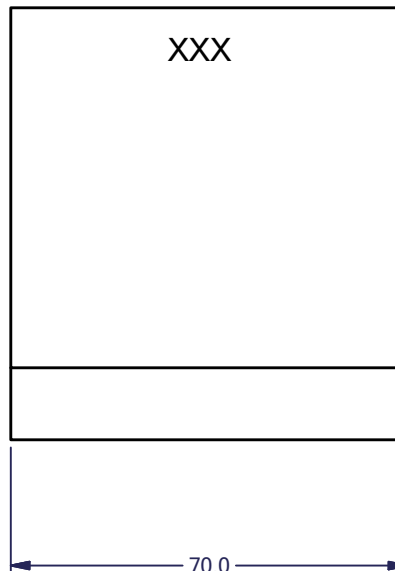
| | | | | | | | | | | | |
|--|-------------------|---|--------------|--|------------|-------------|--|--|--|--|--|
| DRAWN ricruz | DATE 2/14/2009 |  3RD ANGLE PROJECTION | |  COSMA INTERNATIONAL 2550 Steeles Avenue East Brampton, ON, Canada | | | | | | | |
| CHECKED | DATE | | | | | | | | | | |
| APPROVED | DATE | TITLE | | | | | | | | | |
| MATERIAL ASTM A36 HRS 1" X 8" | | | | | | LEVEL PLATE | | | | | |
| FINISH NONE | | | | | | | | | | | |
| THIS MATERIAL IS THE PROPERTY OF MAGNA COSMA INTERNATIONAL. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES. | | SIZE A | SCALE 1:4 | DWG NO V3LA101N | SHT 1 OF 1 | REV A | | | | | |

REVISION HISTORY

| REV | DESCRIPTION | DATE | APPROVED |
|-----|-------------|----------|----------|
| A | | 1/5/2010 | |



XXX



Tolerances: 1 PLACE ± 0.3
 2 PLACE ± 0.03
 3 PLACE ± 0.020

✓ SURFACES TO BE FLAT, PARALLEL &
 PERPENDICULAR TO Φ WITHIN 0.015 T.I.R.
 NOTES: ALL DIMENSIONS METRIC UNLESS OTHERWISE
 NOTED. IDENTIFY WITH COSMA CODE NUMBER AS
 SHOWN XXX.

| | |
|--|-------------------|
| DRAWN RICRUZ | DATE 2/14/2009 |
| CHECKED | DATE |
| APPROVED | DATE |
| MATERIAL ASTM A36 STEEL ANGLE 3" X 3" X 1/2" | |
| FINISH NONE | |
| THIS MATERIAL IS THE PROPERTY OF MAGNA COSMA INTERNATIONAL. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES. | |



3RD ANGLE
PROJECTION



TITLE

LEVEL FLOOR ANGLE

| SIZE | SCALE | DWG NO | SHT | REV |
|------|-------|----------|--------|-----|
| A | | V2LD602X | 1 OF 1 | A |