



ONKAR GROUP

A PREFERRED TECHNOLOGY AND ENGINEERING DRIVEN DEVELOPMENT PARTNER

VARUN MAHAJAN-DIRECTOR MARKETING
MOBILE NUMBER-91-9920565590
EMAIL ID-varun.mahajan@onkardies.com

ABOUT ONKAR GROUP

- FOUNDED IN 1998 BY MR. BHALCHANDRA KOLTE, A TECHNOCRAT WITH OVER 35 YEARS OF EXPERIENCE IN ENGINEERING AND MANUFACTURING INDUSTRY.
- OFFERS CONCEPT TO PRODUCT DESIGN SERVICES, ENGINEERING & MANUFACTURING SOLUTIONS, TESTING AND VALIDATION SERVICES.
- MANUFACTURES WIDE RANGE OF HIGH PERFORMANCE, CRITICAL AND SAFETY COMPONENTS FOR THE AUTOMOTIVE AND NON-AUTOMOTIVE SECTOR.
- CURRENTLY HAS SIX MANUFACTURING UNITS AND EXPANSION PLANS IN PLACE TO MEET GLOBAL GROWTH AND CUSTOMERS REQUIREMENTS
- COMPRISES OF ONKAR DIES PVT.LTD AND TUSSHAR AXLES PVT. LTD.

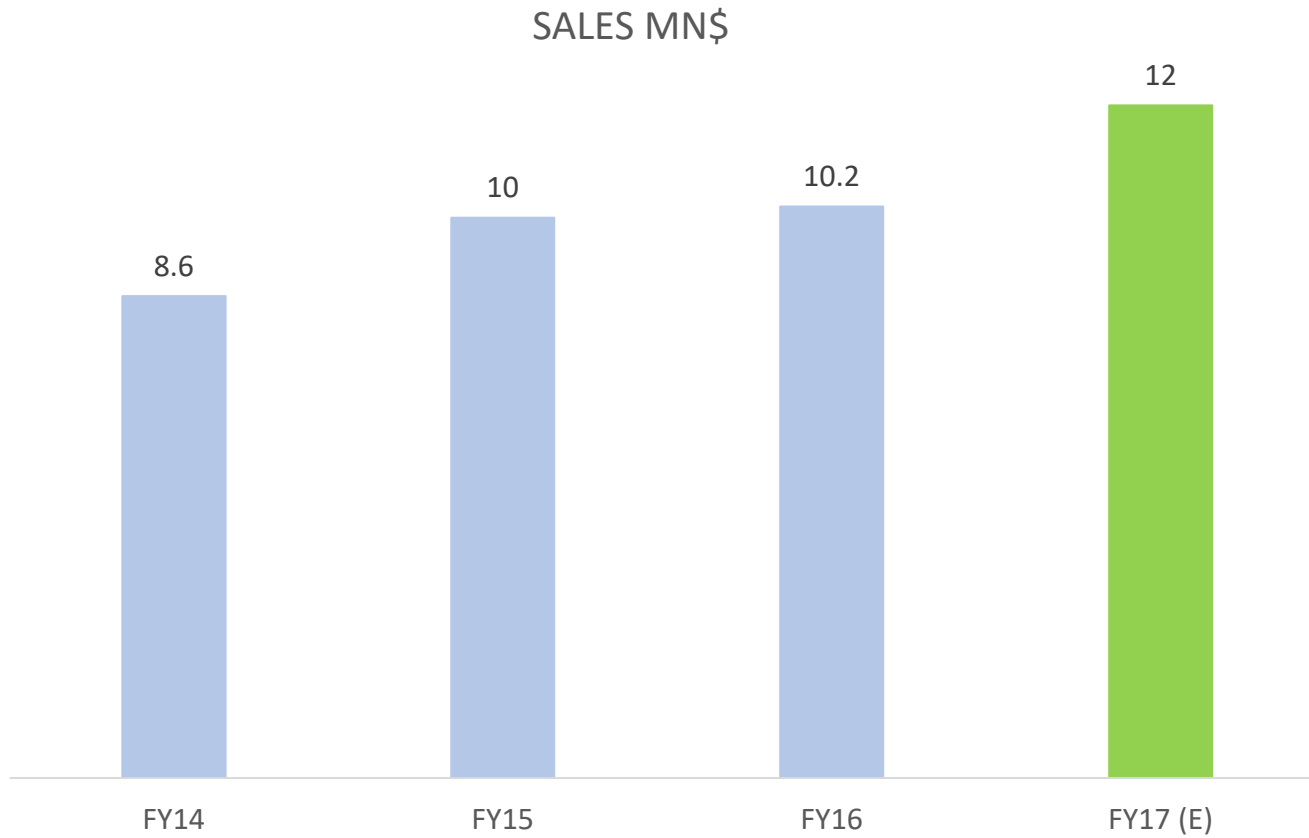
OUR MISSION: PARTNERING OUR CUSTOMERS TO MAKE A DIFFERENCE

OUR VISION: DRIVE TECHNOLOGY TO LEAD INNOVATION ACROSS HORIZONS'

ACHIEVEMENTS

- ROBUST INFRASTRUCTURE TO MATCH HUGE DEMANDS
- EXPERT TECHNICAL TEAM WITH AVERAGE EXPERIENCE OF 15 YEARS
- INNOVATIVE APPLICATION OF LATEST TECHNOLOGIES HAS HELPED THE COMPANY DEVELOP CRITICAL, HIGH VALUE ADDED PRODUCTS
- DEVELOPED 1ST PHE TOOLING PLATE IN INDIA
- EXPORT STANDARDS- EXPORTED TO- USA, SWEDEN, SPAIN, CHINA
- INFRASTRUCTURAL AND TECHNICAL CAPABILITY TO HANDLE COMPLEX PROCESSES AND COMPONENTS
- DESIGNED, DEVELOPED AND SUPPLIED ELECTRIC RICKSHAW DIFFERENTIAL AXLE (APPROVED BY ARAI)

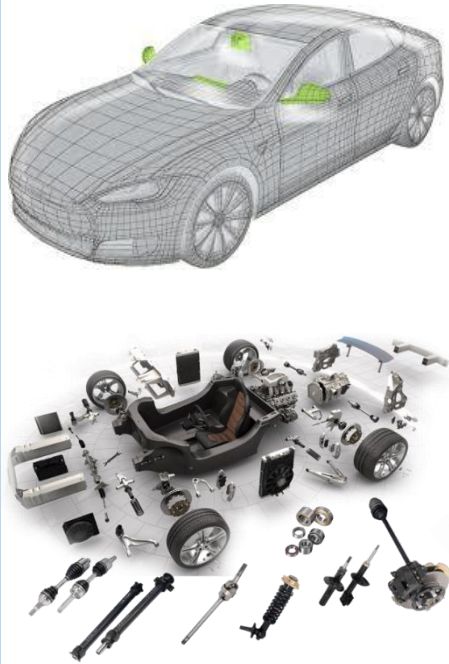
BUSINESS CONSTRUCT



AXLE HOUSING AND PRESS PART MANUFACTURING
CONTRIBUTE TO 75% OF THE BUSINESS FOLLOWED
BY DESIGN AND MANUFACTURING 25%

BUSINESS VERTICALS

DESIGN AND MANUFACTURING



AXLES



PRESS PARTS MANUFACTURING

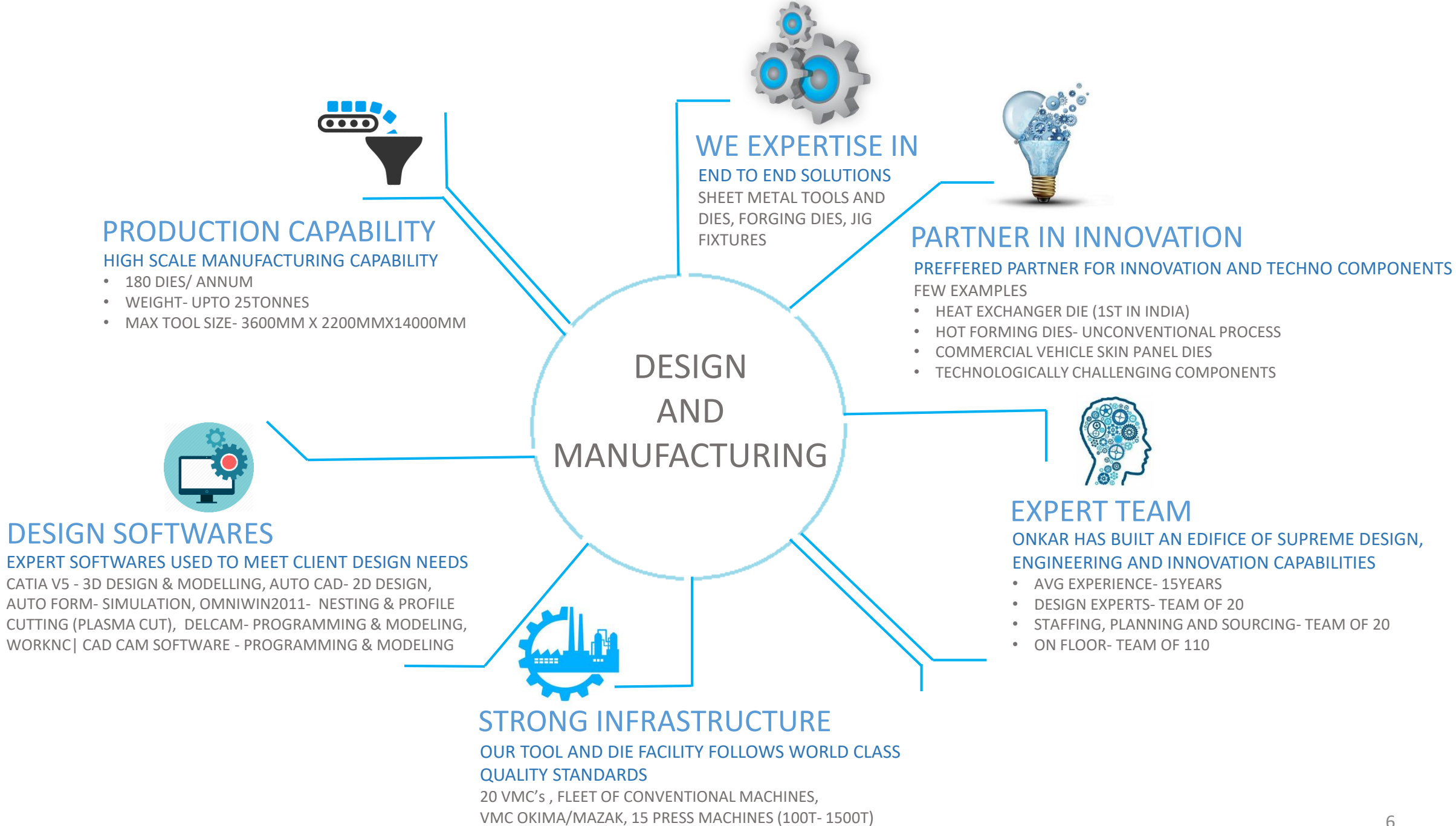


MACHINED COMPONENTS



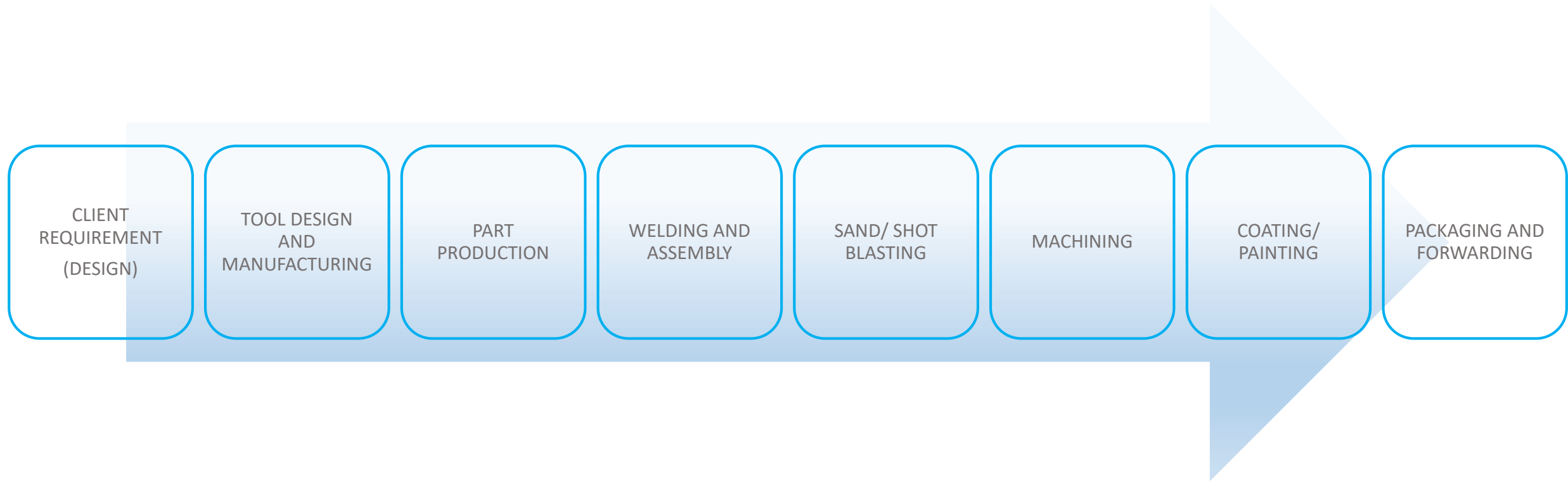
FORGING





DESIGN AND MANUFACTURING- FULL SERVICE SUPPLY CAPABILITY

ONKAR GROUP OFFERS END-TO-END SOLUTIONS TO ITS CUSTOMERS, BASED ON THEIR PRODUCT DEVELOPMENT EXPERTISE



DESIGN AND MANUFACTURING- CLIENTS



TIME TECHNOPLAST LTD.

AXLE HOUSING

ONKAR GROUP IS SPECIALISED IN AXLE HOUSE MANUFACTURING AND ALSO DEVELOPED OUR OWN ELECTRIC AXLE FOR COMMERCIAL SUPPLIES

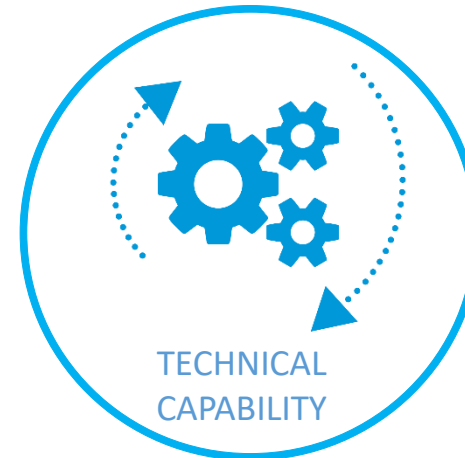
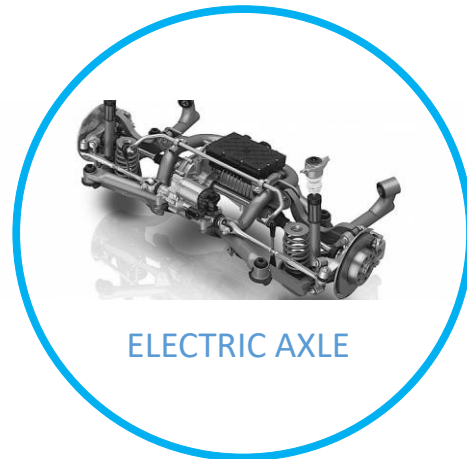


EXCLUSIVE TEAM FOR AXLE R&D

- CUSTOMIZED AXLE HOUSING
- E AXLE- COMMERCIAL
- SPECIALIZED DIE FOR COMMERCIAL RUN

ELECTRIC AXLE- PRODUCT

- E AXLE- LOAD BEARING CAPACITY- UPTO 1200KG
- COMPLETE E- AXLE MANUFACURING

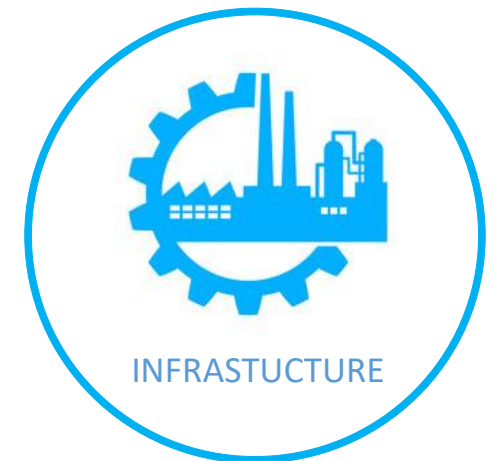


SPECIFICATIONS

- BOTH COLD AND HOT FORMED AXLES
- THICKNESS- UPTO 16MM

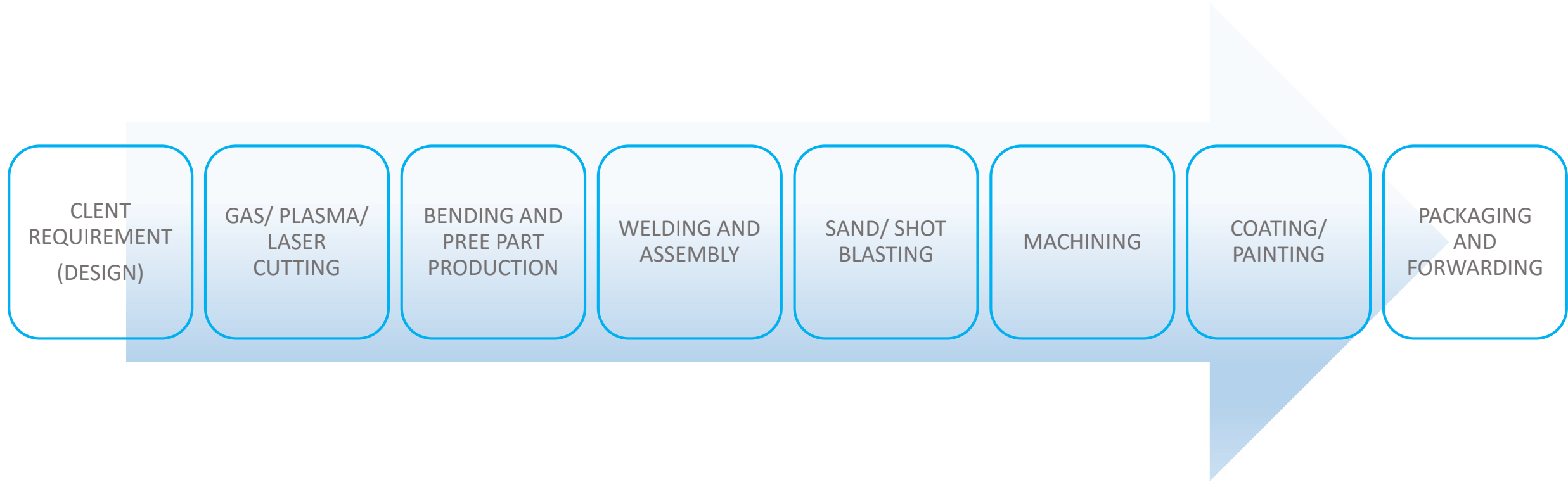
INFRASTRUCURAL CAPABILITY

- HOT FURNACE
- UPTO 1500 T HYDRAULIC PRESSES



AXLE HOUSING- FULL SERVICE SUPPLY CAPABILITY

ONKAR GROUP SUPPLIES AXLE HOUSINGS FOR DIFFERENT VEHICLE SEGMENTS.
ELECTRIC AXLE IS READY FOR COMMERCIAL SALES



AXLES- CLIENTS

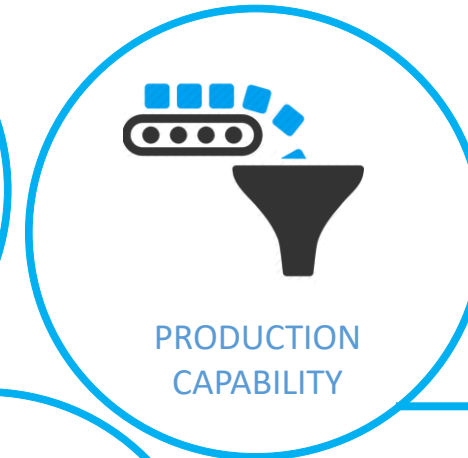
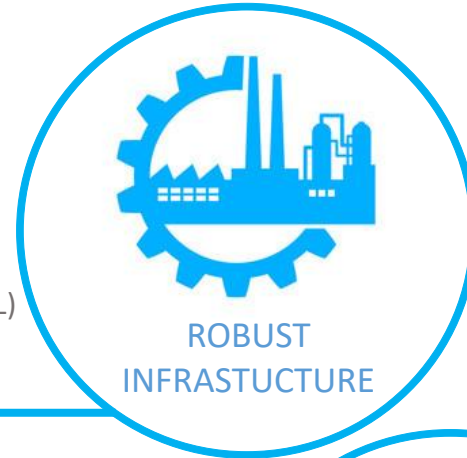


PRESS PART MANUFACTURING

ONKAR GROUP HAS A ROBUST SETUP TO CATER HIGH VOLUME BUSINESS FROM VARIED SECTORS

EXCLUSIVE LINES FOR SHEET METAL STAMPING

- 15 PRESS MACHINES (HYDRAULIC AND MECHANICAL)
- PRESS CAPACITY- 100TON TO 1500TON
- 3 PRESS LINES



PRODUCTION CAPACITY

BIW PARTS- 120K STROKES/ MONTH, COMMERCIAL LIGHT AXLE- 20K STROKES/ MONTH, TAG AXLES- 2K STROKES/ MONTH, HOT FORMING HEAVY AXLE 8K/ MONTH, NON AUTOMOTIVE PRESS PARTS-15K/MONTH

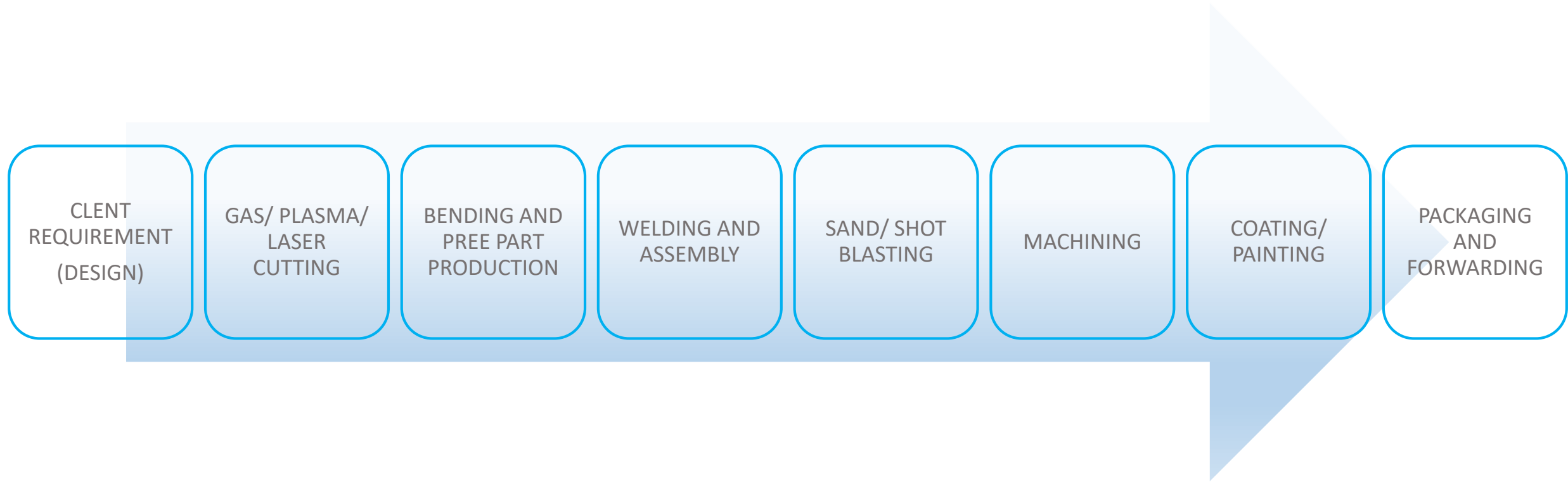


AUTOMOTIVE AND NON AUTOMOTIVE SECTOR

- BIW PARTS
- AXLES
- NON AUTOMOTIVE PARTS

PRESS PART MAUFACTURING- FULL SERVICE SUPPLY CAPABILITY

ONKAR GROUP STAMPING SETUP CAN CATER TO HIGH VOLUME BUSINESS WITH IN HOUSE END TO END SERVICES



PRESS PART MANUFACTURING- CLIENTS



MACHINED COMPONENTS

ONKAR GROUP IS A PREFERRED PARTNER WHEN IT COMES TO HIGH PRECISION COMPLEX COMPONENTS



HIGH PRECISION

EXPERT IN HIGH PRECISION COMPONENTS

FEW EXAMPLES

- KNUCLE BACKBONE
- HEAVY COMMERCIAL AXLE SPINDLE



EXPERT TEAM

EXCLUSIVE MACHINING TEAM

AVERAGE TECHNICAL EXPERIENCE- 15YEARS

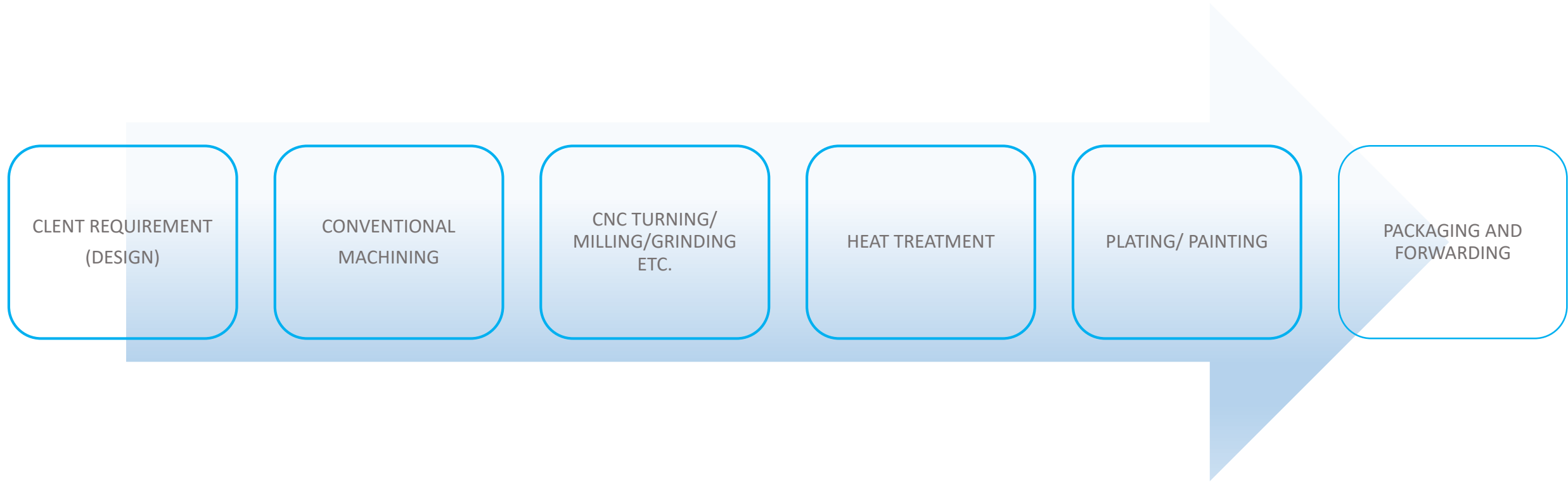


INFRASTRUCTURE

- 20 VMC MACHINES AND 8 CNC TURNING CENTRES
- COMPLETE SET OF CONVENTIONAL MACHINERY

MACHINED COMPONENTS- FULL SERVICE SUPPLY CAPABILITY

ONKAR GROUP HAS FLEET OF VMC's, CNC's AND CONVENTIONAL MACHINES TO MAKE SIMPLE TO COMPLEX COMPONENTS

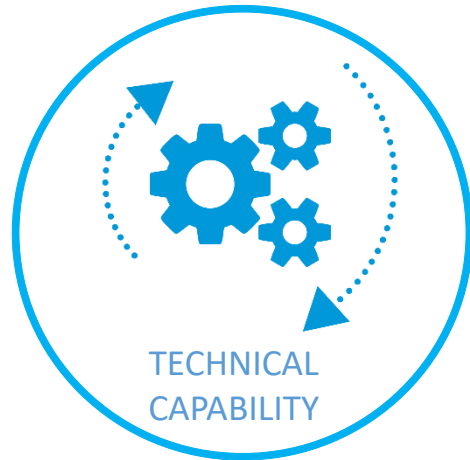


MACHINED COMPONENTS- CLIENTS



FORGING

FORGING IS AN UPCOMING VERTICAL OF ONKAR GROUP, WITH 30 YEARS + EXPERIENCED CONSULTANTS ON BOARD



SPECIFICATIONS

- OPEN DIE AND CLOSED DIE
- NEAR NET FORGING
- INPUT WEIGHT- UPTO 12KG



EXCLUSIVE FORGING TEAM

CONSULTANT ON BOARD- 30YEARS EXPERIENCE
EXCLUSIVE TEAM



EXCLUSIVE TEAM FOR AXLE R&D

- LESSENNED INPUT WEIGHT WITH SIMULATION- 15% REDUCTION IN ACTUAL WEIGHT
- CUSTOMISED JOBS

FORGING- FULL SERVICE SUPPLY CAPABILITY

ONKAR GROUP PROVIDES COMPLETE FORGING SERVICES.



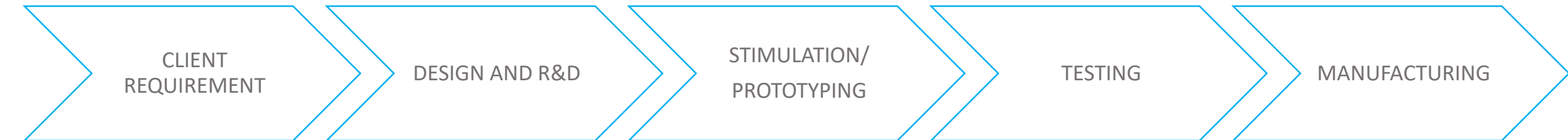
FORGING- CLIENTS



INNOVATION AND DEVELOPMENT

ONKAR GROUP BELIEVES THAT ITS NEXT ROUND OF GROWTH WILL BE PROPELLED BY CREATING OPPORTUNITIES THROUGH INNOVATION.

THE COMPANY HAS BEEN FOCUSING SHARPLY ON INNOVATING IN THE AUTOMOTIVE SPACE WITH NEW TECHNOLOGY & PRODUCTS WHILE CONTINUING TO EXPLORE OPPORTUNITIES IN THE NON-AUTOMOTIVE SPACE. INNOVATIVE APPLICATION OF LATEST TECHNOLOGIES HAS HELPED THE COMPANY DEVELOP CRITICAL, HIGH - VALUE ADDED PRODUCTS. WE CREATE INNOVATIVE COMPONENTS FOR AN EVOLVING MARKET. AT ONKAR GROUP OUR ENGINEERS COOPERATE CONSTANTLY WITH THE CUSTOMERS, IN ORDER TO FIND SPECIFIC SOLUTION FOR EVERY TYPE OF USE FOR FUTURE VEHICLES.



INFRASTRUCTURE



TOOLING BUSINESS UNIT
J-140, MIDC BHOSARI, PUNE.

BIW PRESS PARTS, MANUFACTURING
GAT NO.251, MOSHI, PUNE.

BANJO HOUSE
GAT NO.223, MOSHI, PUNE.



TUSSHAR AXLES PVT.LTD.
SITARGANJ- UTTARAKHAND.

ONKAR DIES PVT LTD.
CHIMBALI PUNE.
NEW FACILITY FOR UPCOMING PROJECT



ONKARDIES PVT LTD.
KHED CITY PUNE. (20000 SQ METERS)
NEW FACILITY FOR UPCOMING PROJECT

CAPACITY

DIES	180 DIES / ANNUM
BIW PRESS PARTS	500 THOUSAND STROKES / MONTH
COMMERCIAL LIGHT AXLES	20 THOUSANDS / MONTH
TAG AXLES	2 THOUSANDS / MONTH
HOT FORMING HEAVY AXLES	8 THOUSANDS / MONTH
NON AUTOMOTIVE PRESS PARTS	15 THOUSANDS / MONTH

APPRECIATIONS



THANK YOU

PLEASE REFER ANNEXURE FOR DETAILS AND WORK IMAGES

ANNEXURE

TOOL ROOM MACHINERY

MACHINE TYPE	MAKE	BED SIZE (MM)	QUANTITY
PRESS MACHINE	1200 TON HYDRAULIC MULLER	3200X2250	1
PRESS MACHINE	1000 TON MECHANICAL ERFURT	4000X2500	1
PRESS MACHINE	600 TON MECHANICAL ERFURT	2490X1400	1
PRESS MACHINE	100 TON HYDRAULIC MULLER (SPOTTING PRESS)	3100X2100	1
VMC	HARTFORT	2000X3000X1000	1
VMC	PINNACLE	2000X800X900	2
VMC	YANG	800X400X500	1
VMC	SUPERMAX 7	1700 X 800 X 800	1
VMC	HARTFORT	3100 X 1500	1
VMC	MERCURY	2100 X 850	1
VMC	TAL	1200 X 500	1
VMC	TAL	1200 X 400	1
BORING MACHINE (HORIZONTAL)	BACAUS	1200X1500X1600	1

TOOL ROOM MACHINERY

MACHINE TYPE	MAKE	BED SIZE (MM)	QUANTITY
MILLING MACHINE	WMW	1200X600X400	1
MILLING MACHINE	BFW	1200X600X400	1
MILLING MACHINE	PARKSON	1200X600X400	1
MILLING MACHINE	LAGUN	800X500X300	1
MILLING MACHINE	HURON	1700 X 400 X 400	1
MILLING MACHINE	TOSS	400x200x300	2
MILLING MACHINE	M1TR	Dia 10	1
SURFACE GRIDING MACHINE	WMW	200x100x100	1
SURFACE GRIDING MACHINE	PORTH	600X300X400	1
SURFACE GRIDING MACHINE	BLOHM-HFS 6	600X300X400	1
DRILLING MACHINE	WMW, BOTLI BIO, ONKAR	MULTIPLE	7
LATHE MACHINE	MULTIPLE	4FEET to 12FEET	6
HACKSAW MACHINE	JASWANT	350X250XDIA	1
PLANO MACHINE	HELLER	5000X2000X1500	1

FABRICATION EQUIPMENT

MACHINE TYPE	MAKE	SPECIFICATION	QUANTITY
WELDING	ARC	400 AMPS	1
WELDING	ARC	600 AMPS	1
WELDING	ESAB	500 AMPS	3
WELDING	L&T	500 AMPS	1
WELDING	ONKAR	600 AMPS	1
WELDING	L&T ZUPER	600 AMPS	1
WELDING	FANUC ROBOTIC WELDING MACHINE		1
WELDING	DYNARC STIFFNER RING WELDING MACHINE		1
WELDING	TECHNOCRAT	400 AMPS	1
WELDING	ATE	600AMPS	1

MACHINING EQUIPMENT

MACHINE TYPE	MAKE	BED SIZE (MM)	QUANTITY
VMC	HURON SHK623	2200 X 800 X 900	1
VMC	ONKAR	2000 X 500 X 500	1
VMC	JYOTI	1200 X 600 X 600	1
VMC	GOUSHIN	1200 X 700 X 700	1
VMC	BFW	1250 X 600	1
VMC	MITSUBHISHI	1200 X 600	1
VMC	TAL	1200 X 500	1
VMC	TAL	1200 X 500	1
CNC	JYOTI	DIA 400 X 1000	2
CNC	JYOTI	DIA 600 X 1500	1
CNC	NANDINI	DIA 500 X 2000	1
CNC	JYOTI	DIA 200 X CENTER 300	1
CNC	JYOTI	DIA 200 X CENTER 300	1
CNC	JYOTI	DIA 200 X CENTER 300	1
CNC	MORISEIKI	DIA 250 X CENTER 500	1
CNC	MAZAK	DIA 600 X CENTER 3000	1
HMC	BFW MPH 750	1200 X 750 X 700	1

MACHINING EQUIPMENT

MACHINE TYPE	MAKE	BED SIZE (MM)	QUANTITY
BORING MACHINE	ONKAR	1400 X 350	1
BORING MACHINE	ONKAR	1100 X 500	1
BORING MACHINE	ONKAR	1300 X 500	1
MILLING MACHINE	TOSS	1200 X 400 X 400	1
MILLING MACHINE	HURON	2100 X 600 X 600	1
MILLING MACHINE	ONKAR	1800 X 500	1
DRILLING MACHINE	ONKAR, BRIDGEPORT	MULTIPLE	3
FURNACE	MUFFEL	50KW\350 KW	2
NUMBER PUNCHING MACHINE		100 X 45	3
NUMBER PUNCHING MACHINE	ETCHON	100 X 50	1
BANDSAW MACHINE		120 DIAMETER	1

STAMPING EQUIPMENT

MACHINE TYPE	MAKE	BED SIZE (MM)	QUANTITY
PRESS MACHINE	1500 TON HYDRAULIC MULLER	4000X2250	1
PRESS MACHINE	800 TON MECHANICAL WILKINS	2740X1520	1
PRESS MACHINE	600 TON MECHANICAL WILKINS	2740X1520	1
PRESS MACHINE	400 TON MECHANICAL WILKINS	2115X1420	1
PRESS MACHINE	400 TON HYDRAULIC SMG	2000X850	1
PRESS MACHINE	400 TON MECHANICAL ERFURT	2480X1400	1
PRESS MACHINE	350TON HYDRAULIC ONKAR (SINGLE POINT PRESS)	2470X1200	1
PRESS MACHINE	300 TON MECHANICAL PRESS BRAKE	4000	1
PRESS MACHINE	250 TON MECHANICAL GRAIC AND DONALD	1260X1210	1
PRESS MACHINE	150 TON HYDRAULIC WMW	650X650	1
PRESS MACHINE	125 TON MECHANICAL BLISS	750X550	1
PRESS MACHINE	80 TON MECHANICAL BLISS	900X700	1

FORGING

MACHINE TYPE	MAKE	SPECIFICATION	QUANTITY
HAMMER	MESSI	1 TON	2
FURNACE	Inductotherm (Induction Furnace)	150KW	1

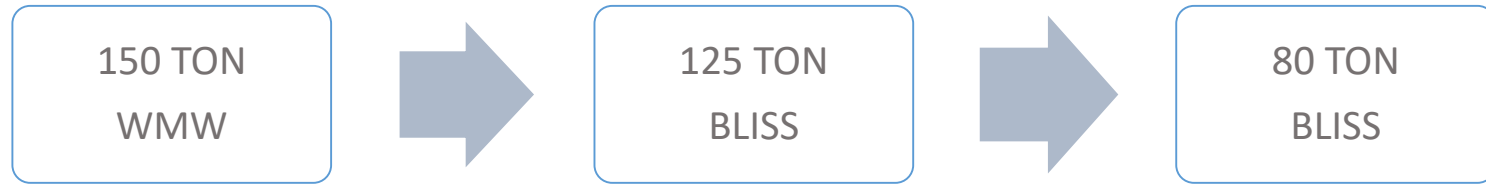
TESTING EQUIPMENT

MACHINE TYPE	MAKE	BED SIZE (MM)	QUANTITY
Testing Equipment	ACCURATE CMM	1200 X 2000 X 1000	1
Testing Equipment	ZEISS CMM CONTROUR TRACER	405 X 1000	1
Testing Equipment	ZEISS SUFACE RUFNESS	400 X 600	1

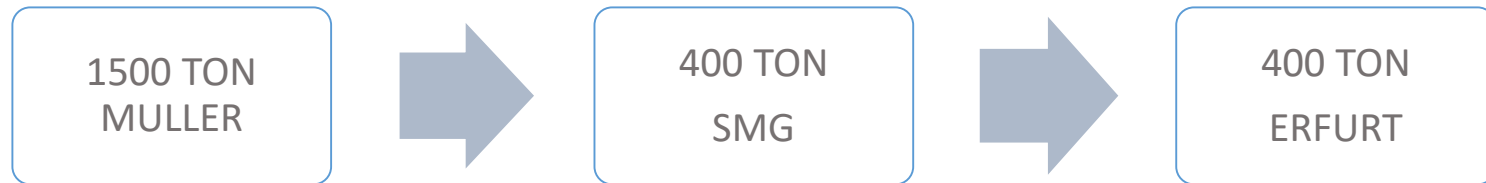
PRESS LINE 1



PRESS LINE 2

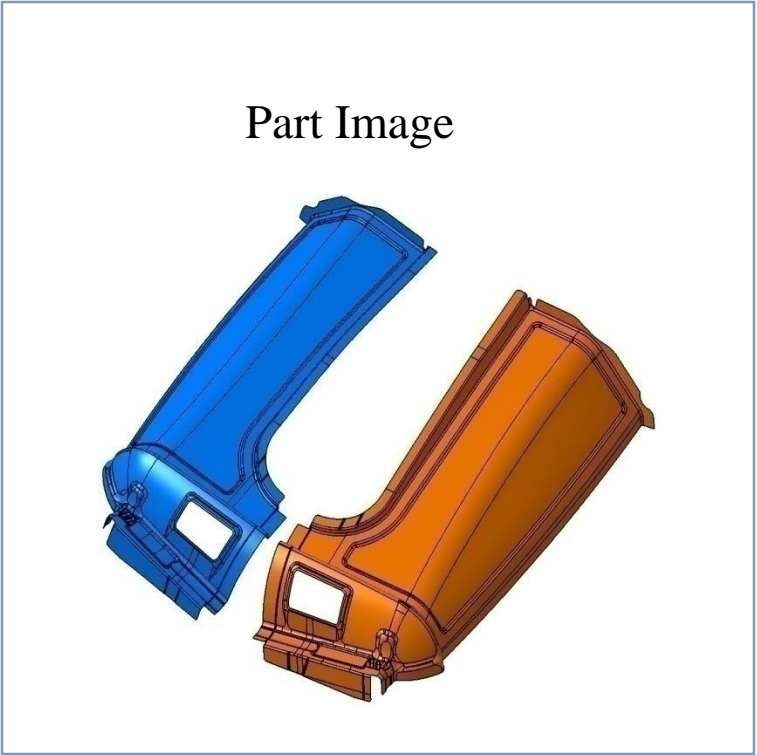


PRESS LINE 3



FORMABILITY ANALYSIS

PART NUMBER	553763608204 - 05
PART NAME	PNL RR QUATR INR UPR LH/RH.
ERC PART MODIFICATION	A 16/A13
PECAE REVISION	-
RELEASED FOR (E0/E1/E2..)	E0
ANALYST NAME	ONKAR DIES
SIMULATION FILE NAME	SIM 15.8



SIMULATION SET-UP

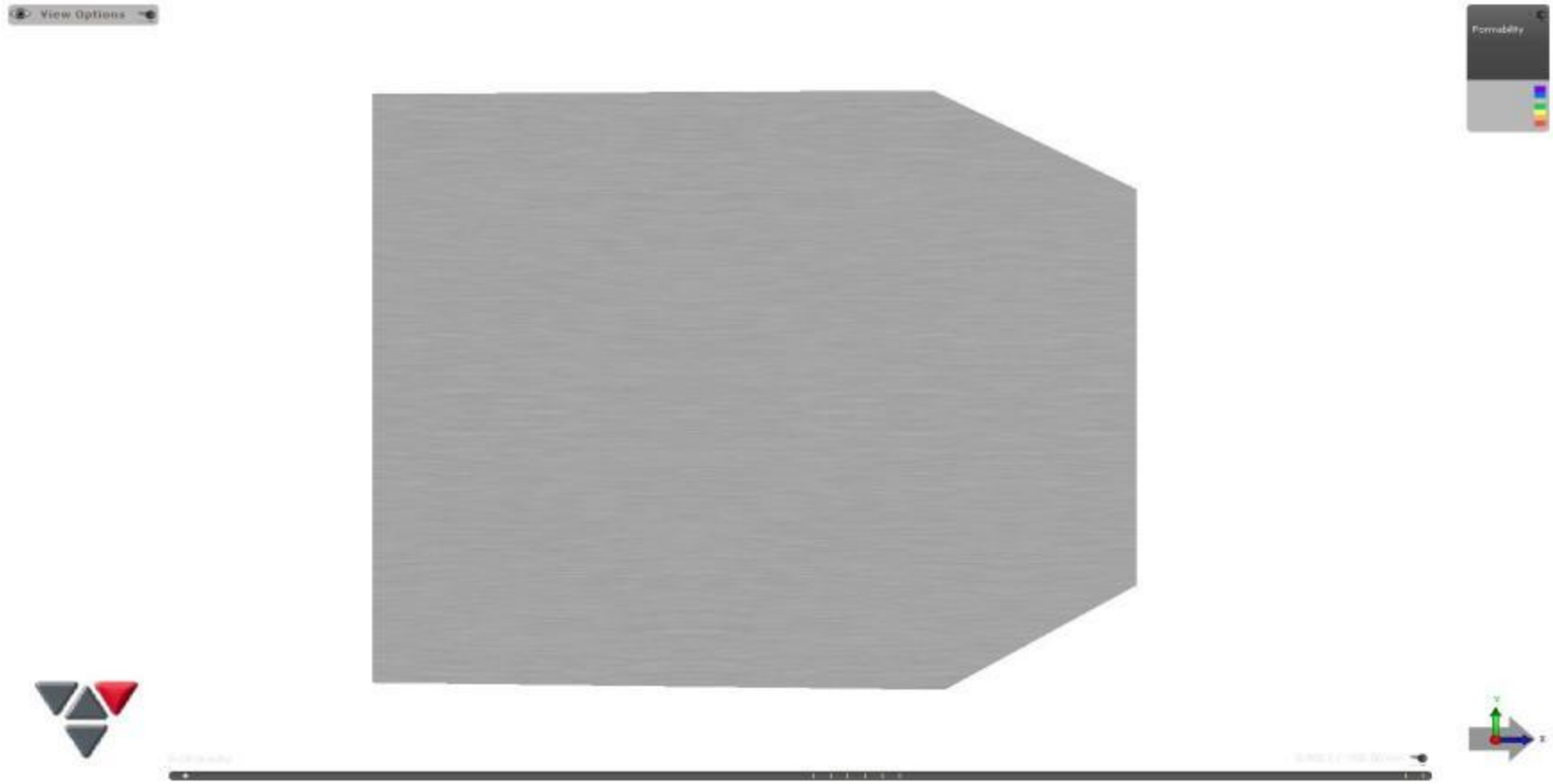
MATERIAL	EDD513
THICKNESS*	0.65 MM
MASTER SURFACE	UPPER
BLANK SIZE	945 X 855
MATERIAL YIELD	67 %
COEFFICIENT OF FRICTION	0.14
BINDER STROKE FOR DRAW	200 MM
BLANK HOLDING FORCE FOR DRAW	80 T
MINIMUM DRAW TONNAGE	230 T

MATERIAL PROPERTIES

N VALUE	0.135
R VALUE AT 0/45/90 DEG	0.73/01.06/0.88
POISSON'S RATIO	0.3
YOUNG'S MODULUS	210GPa
YIELD STRENGTH	0.40
UTS	0.4-0.5
K VALUE (STRENGTH COEFFICIENT)	0.75(GPa)

*SIMULATION TO BE DONE ON UPPER THICKNESS OF SHEET TOLERANCE , MENTION THICKNESS USED IN SIMULATION ALSO.

SIMULATION STAGES (OP-10 DRAW)



AT THE GRAVITY

SIMULATION STAGES- AFTER DRAW

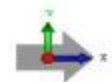
View Options

Formability



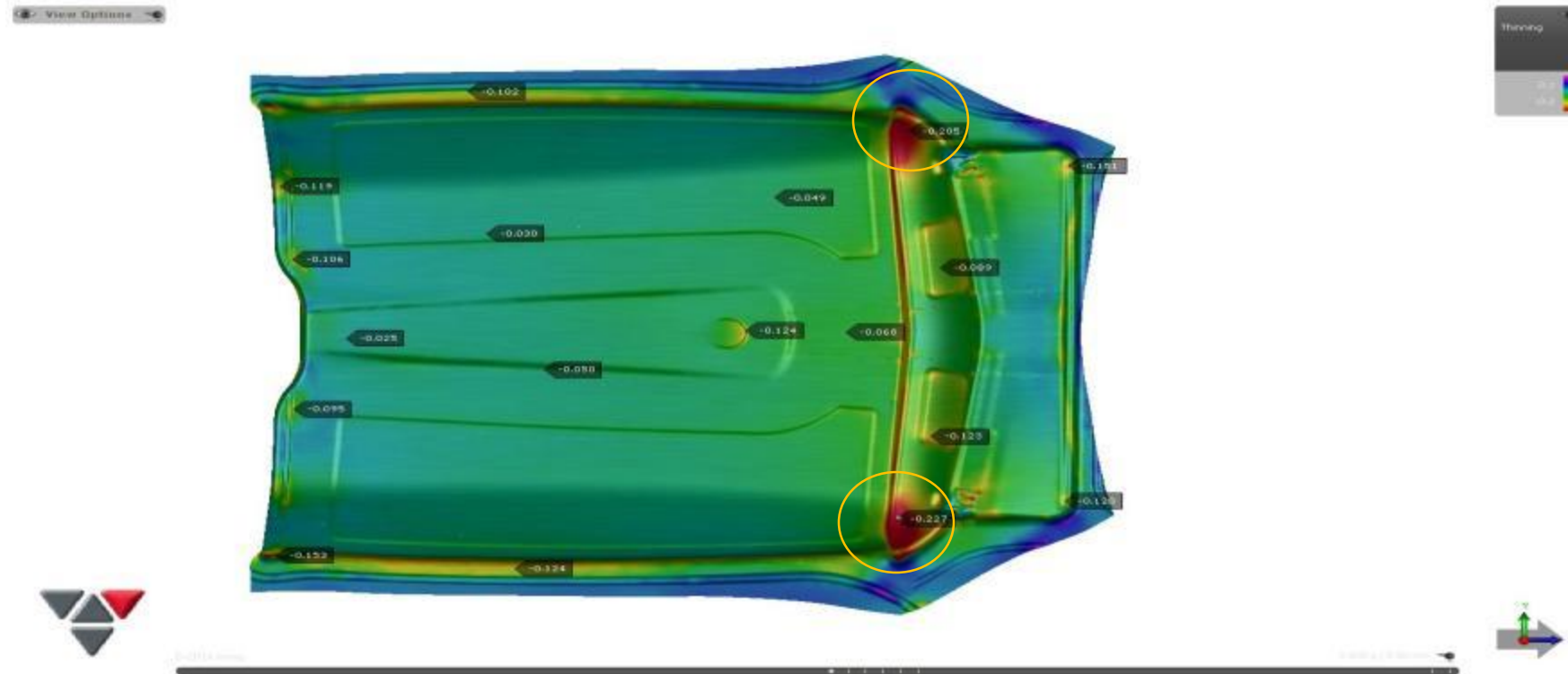
0.00 (mm)

1.000 x 10⁰⁰ (mm)



AT BDC

THINNING AFTER DRAW

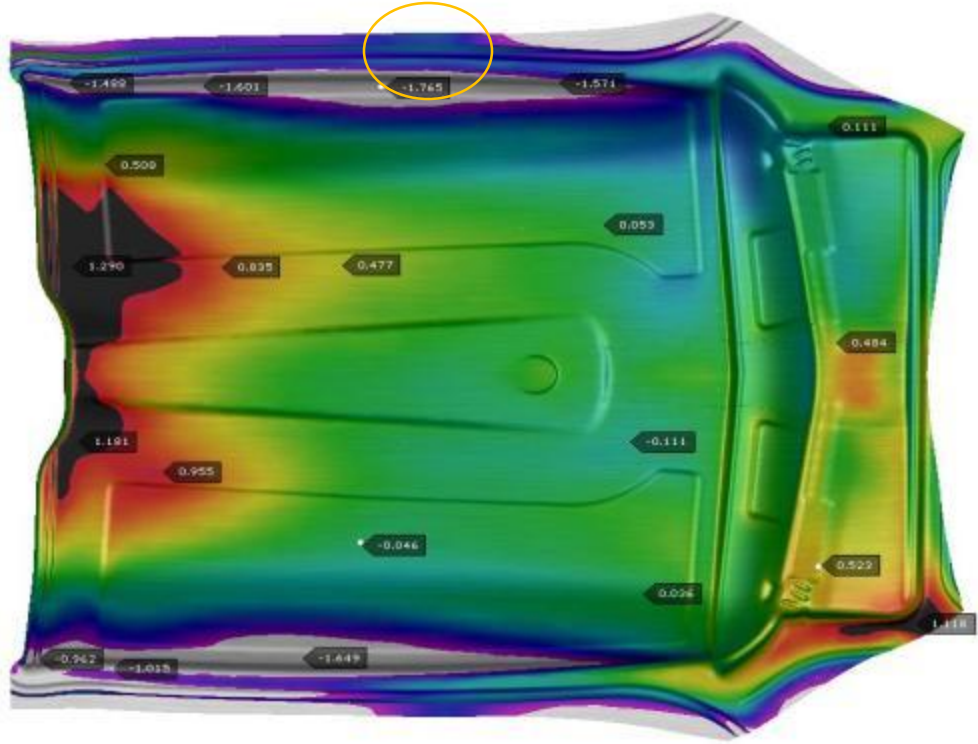


MAX 23% AT LOCAL ZONE OF 8 TO 10MM. WE TRY TO MINIMIZE IN TRYOUT WITH STONING AND POLISHING.

OP 10. SPRING BACK AFTER DRAW

View Options

Drop in Form De
mm
0.1
0.2
0.3
0.4
0.5



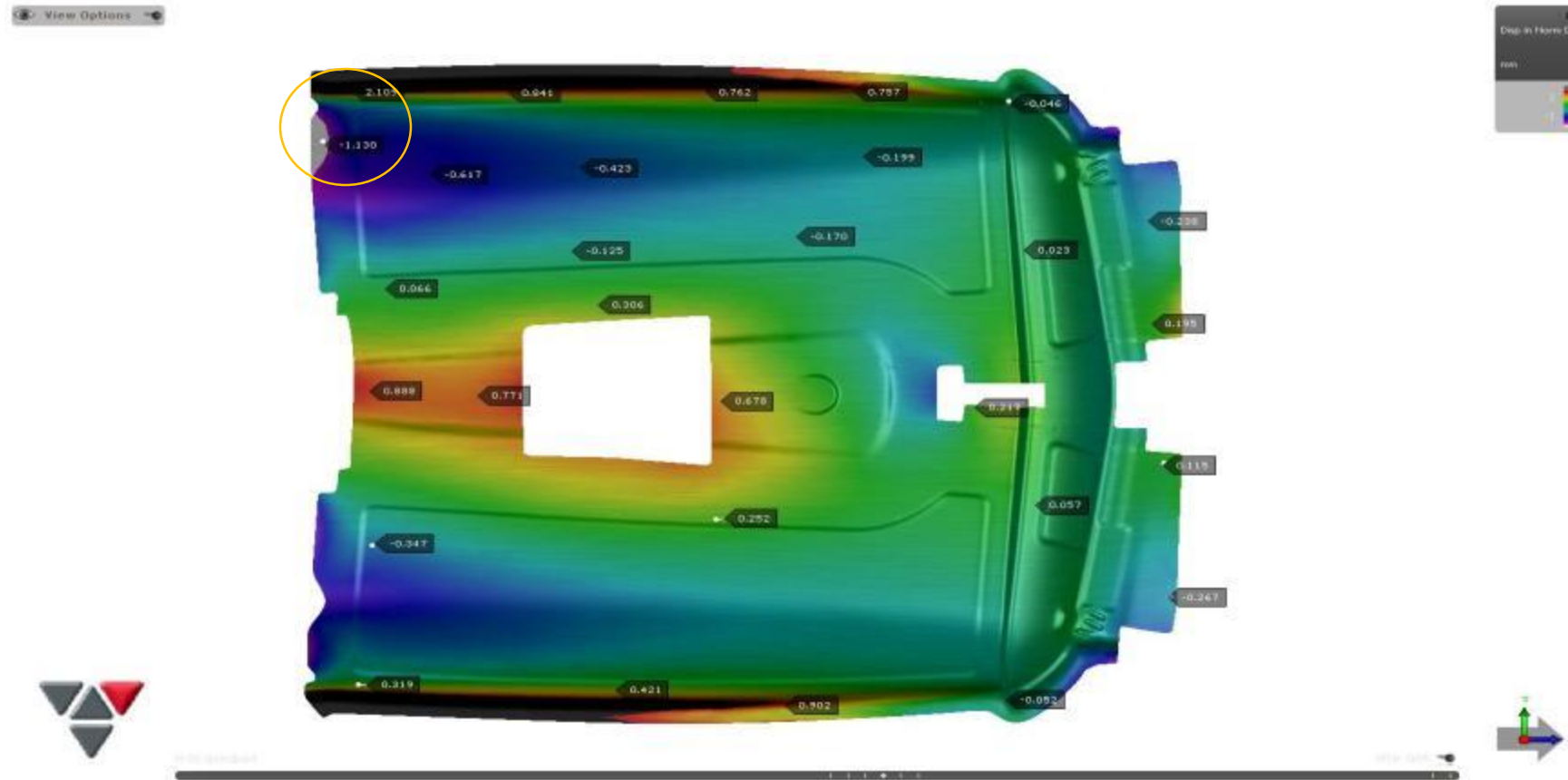
1/10/2014

0.1



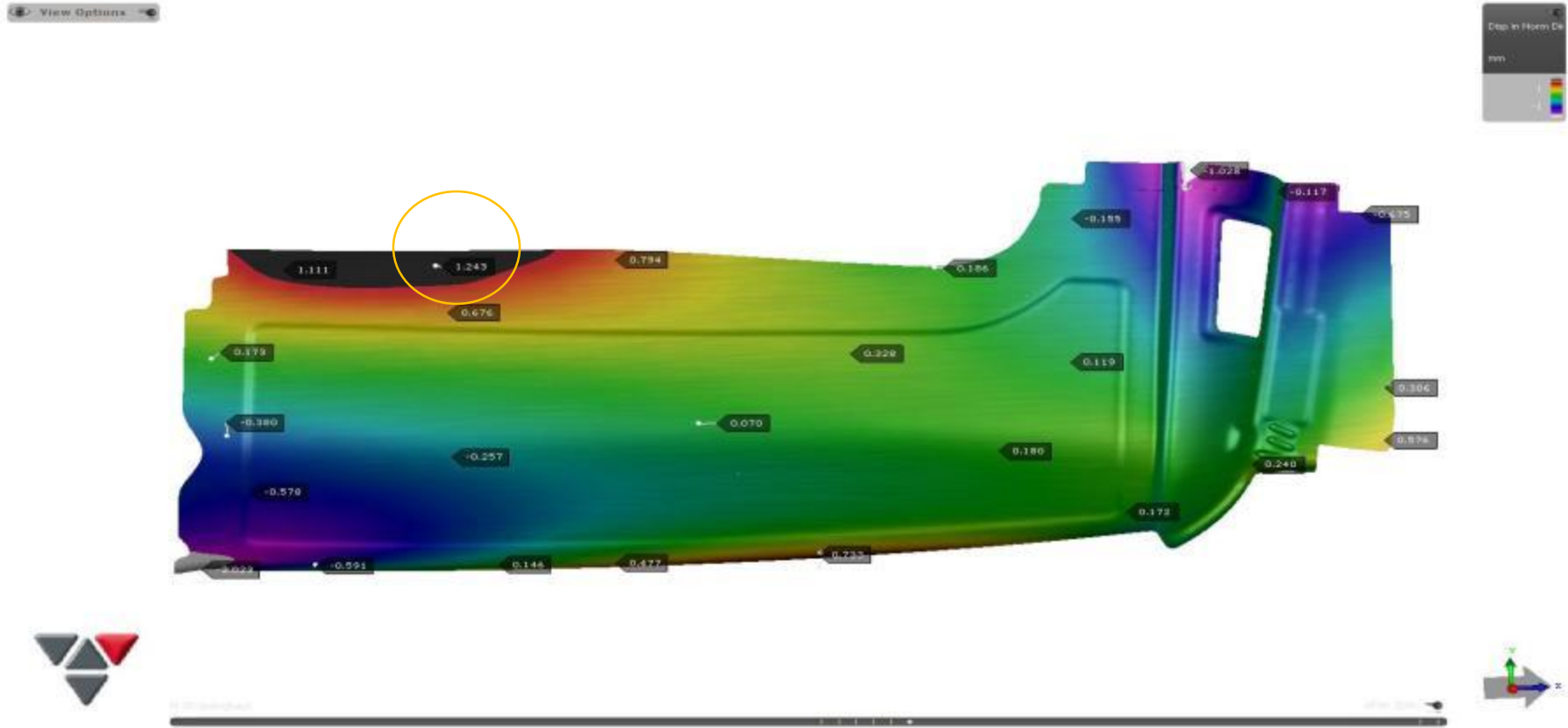
MAXIMUM SPRING BACK IS -1.765 MM IS SHOWN BY CIRCLE.

SPRING BACK AFTER- (OP 20)



MAXIMUM SPRING BACK VALUE IN PART IS -1.130 MM SHOWN BY CIRCLE.

SPRING BACK AFTER- (OP 30)

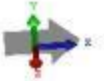
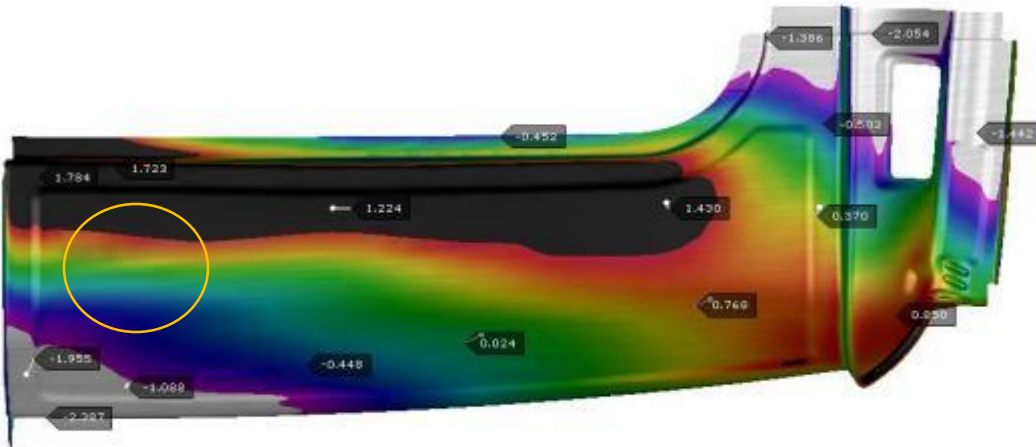


MAX VALUE IS 1.243 MM IS SHOWN BY CIRCLE.

SPRING BACK AFTER- (OP 40)

View Options

Drop in Plot De
min
1
2
3
4
5
6
7
8
9
10



MAX SPRING BACK ON MATCHING ZONE IS 1.7MM AT LOCAL ZONE IN MARKED CIRCLE. WE WILL TRY TO MINIMIZE AT THE TIME OF TRY-OUT BY COMPENSATION OF SRF.

STRETCH AFTER- (OP 40 FINAL PART)

View Options

Formability



Forming 2

12000 x 10.00 mm



TOOLING DEVELOPED PARTS



FUEL TANK THICKNESS 1 TO 1.2MM
(MAHINDRA)



SPRING SEAT
THICKNESS 2.5MM (TACO)



DOOR PANEL THICKNESS 5-10MM (GODREJ)



GUSSET ROOF ARCH



OIL SUMP THICKNESS 1.25MM(TACO)



HOT FORMING HOUSING HALF THICKNESS 9 TO 4MM (AAM)

TOOLING DEVELOPED FOR TATA MOTOR



REINF CENTRAL REAR INNER



REINF B PILLAR INNER

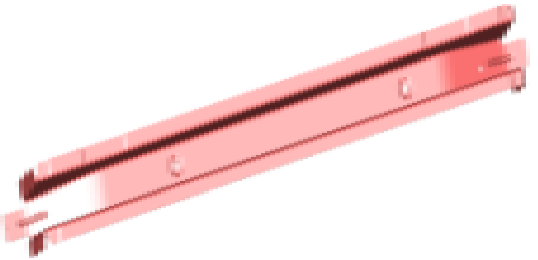


CROSS MEMBER BUMPER

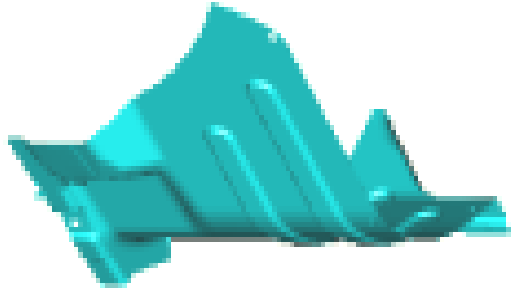
TOOLING DEVELOPED FOR GENERAL MOTORS



REINFORCEMENT-U/B RR CR SILL LWR



BAR-FLR PNL #6 CR



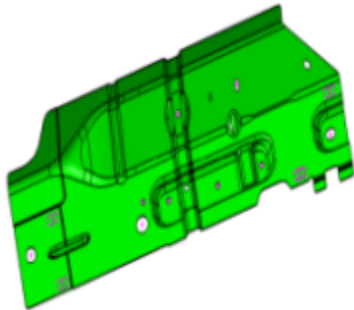
EXTENSION-R/FLR PNL RR LH\RH



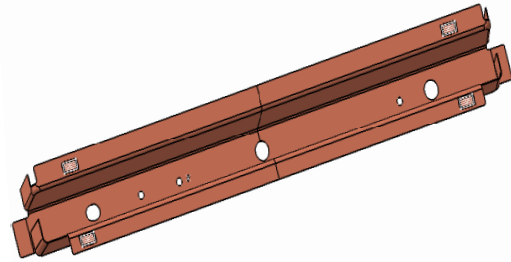
BAR-FLR PNL #5 CR

TOOLING DEVELOPED FOR TATA MOTORS

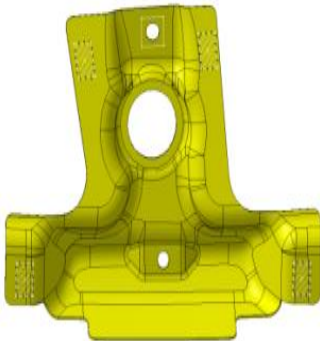
PROJECT X3MY14



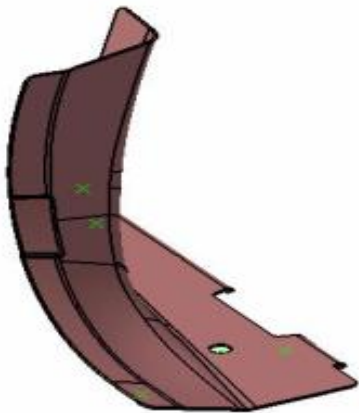
COVER PLATE LONGITUDINAL REAR LH/R



CROSS PLATE RACK & PINION MTG. DIESEL

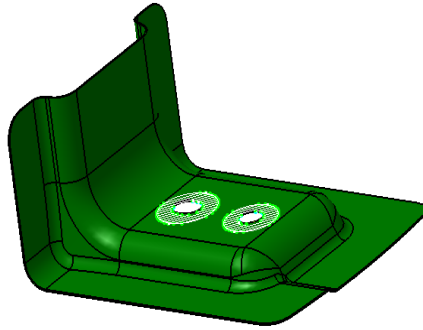


REINF CANTRIAL INNER LH/RH



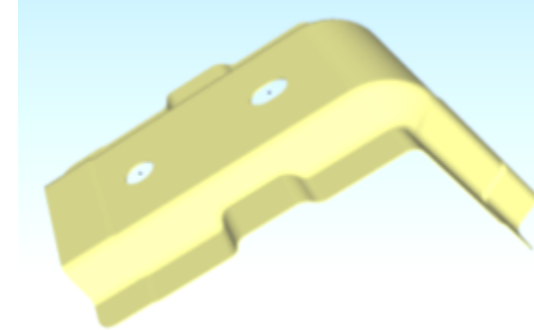
COVER PLATE RR SILL LH/RH

TOOLING DEVELOPED FOR TATA MOTORS



REINF REAR FLOOR FRONT

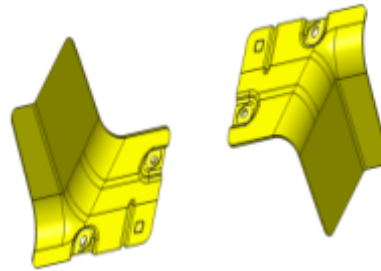
PROJECT ZEST



REINF REAR FLOOR MIDDLE



REINF REAR FLOOR REAR



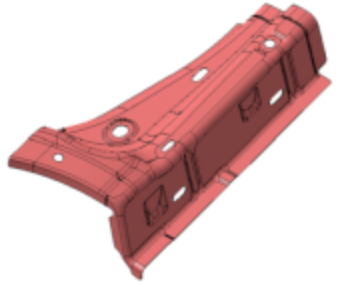
REINF BRACKET REAR FLOOR LH /RH



REINF SUSPENSION TOWER REAR L/R

TOOLING DEVELOPED FOR TATA MOTORS

PROJECT X001



REINF SIDE SILL L/R
MAT 0.8MM HSLA 340



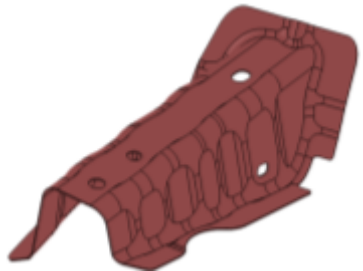
MEMBER RADIATOR SUPPORT TOP
MAT 1 MM HSLA 340



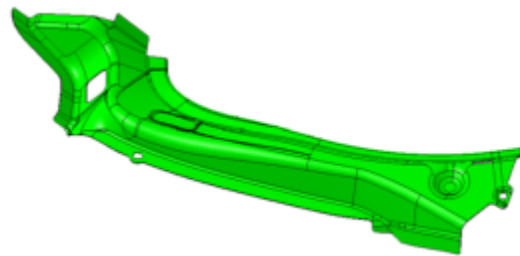
MBR FRONT SEAT MTG LH/RH
MAT 0.8MM HSLA 340



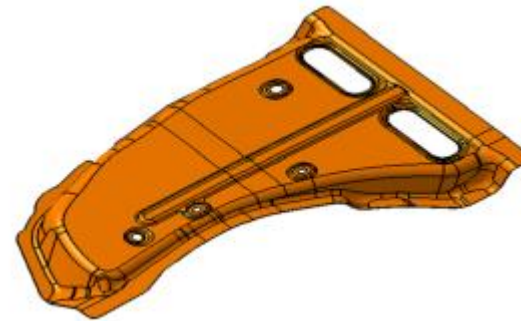
PANEL SHOTGUN INNER
MAT 1 MM HSLA 340



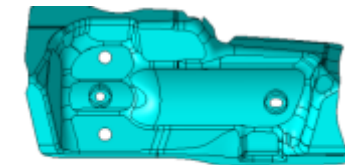
MBR WHEEL ARCH REINF L/R
MAT 1 MM HSLA 340



PANNEL D PILLAR OUTER LH RH
MAT 1 MM D513



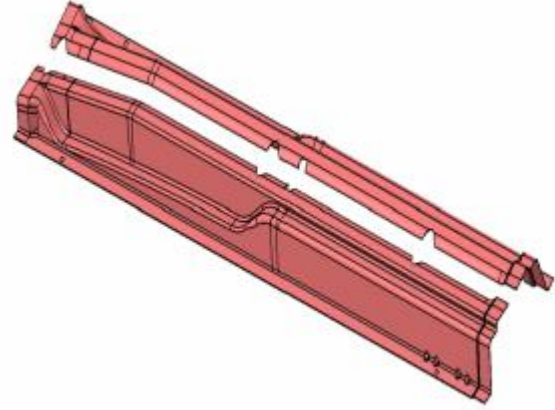
PANEL SHOTGUN OUTER LH-RH
MAT 1 MM HSLA 340



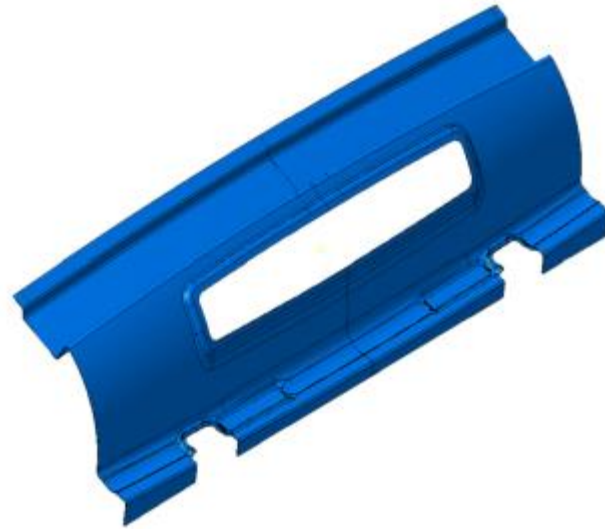
PANEL STEAR GEAR MTG BKT LH RH
MAT 1.25MM D513

TOOLING DEVELOPED FOR TATA MOTORS

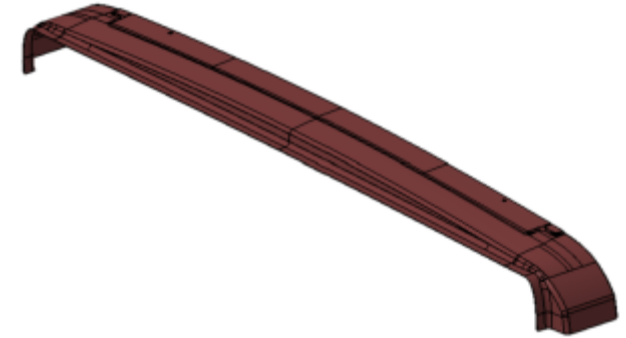
PROJECT MAGIC CLOSED VAN



SUPPORT PANEL FRONT-LH-RH
MAT 1MM IFHS400

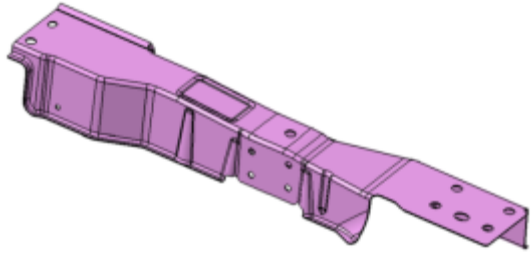


INNER PANEL, TAILGATE APERTURE
MAT 0.65MM EDD 513

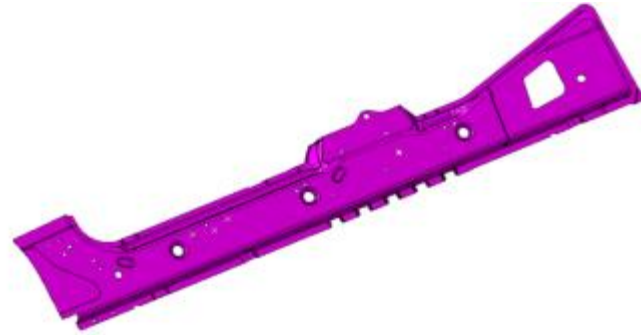


EXTENSION SUPPORT REAR ROOF
MAT 0.8MM HSLA 320

TOOLING DEVELOPED FOR TATA MOTORS



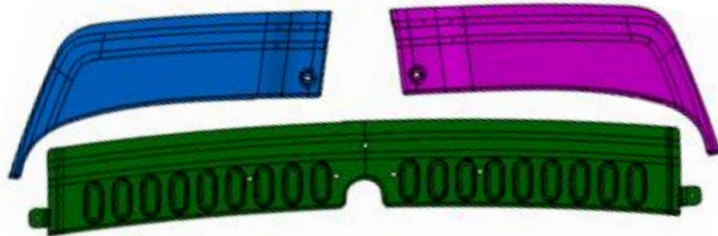
SIDE MBR SUBFRAME
MAT 1.6 MM E-34



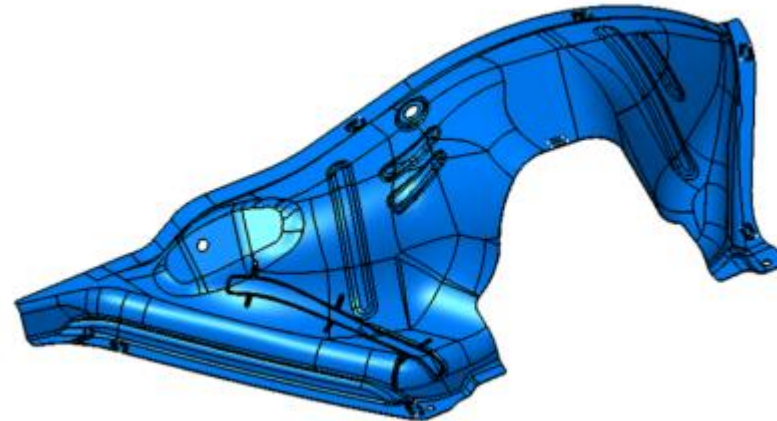
PNL SIDE SILL INR L/R
MAT 0.8 MM D 513



DIAPHARM ENG MTG
MAT 1.6 MM E-34



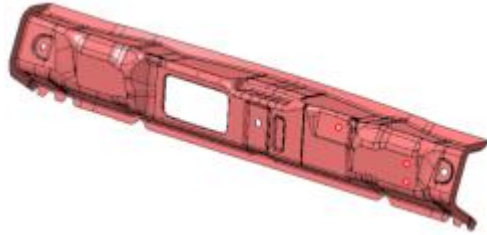
BUMPER TOP L/R & CENTER
MAT 1.5 MM D 513



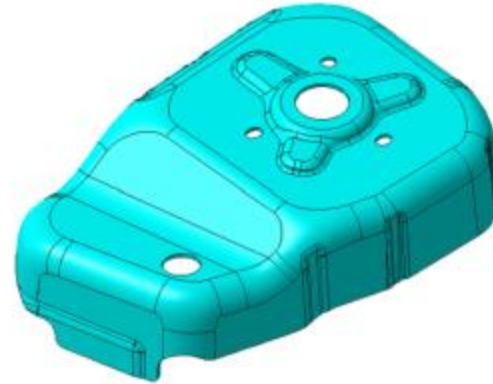
WHEEL ARCH INR REAR L/R
MAT 1.0 MM EDD 513

TOOLING DEVELOPED FOR TATA MOTORS

PROJECT OSPREY



COWL PNL
MAT 0.8MM EDD-513



SUSPENSION TOWER LH/RH
MAT 2.5MM E-34



REINF A PILLAR TOP LH/RH
MAT 1.5MM E-34

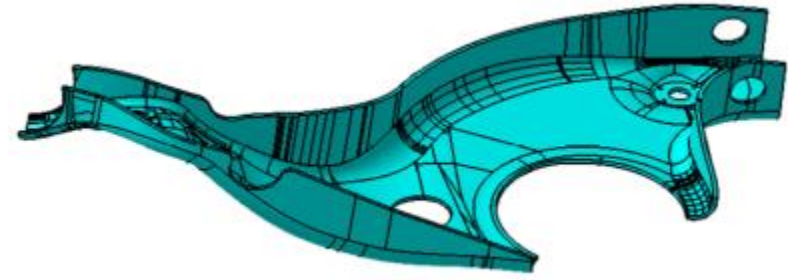
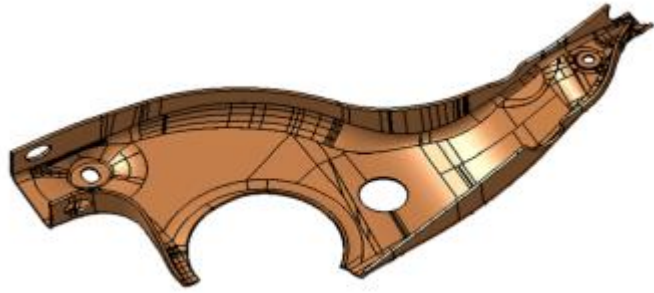


PNL CANTRAIL INR LH/RH
MAT 0.8MM IFHS-440

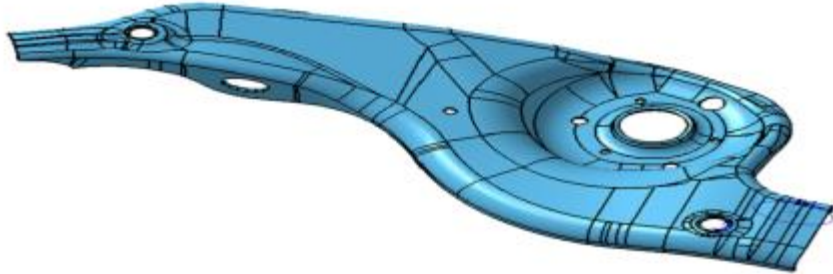


ROOF BOW FRONT
MAT 0.6MM EDD-513

TOOLING DEVELOPED FOR FORD



GUSCIO INFERIORE SX PER ASSALE POST
MAT 3.0MM FEE-355



GUSCIO SUPERIORE SX PER ASSALE POST
MAT 3.5MM FEE -355

TOOLING DEVELOPED FOR CATERPILLAR

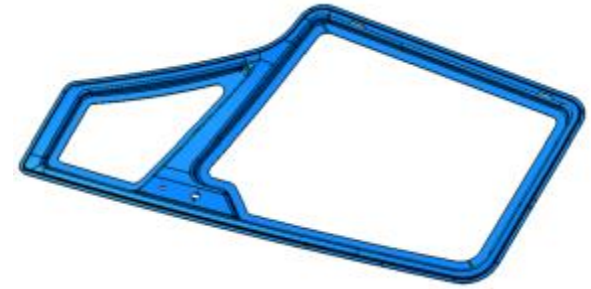
PROJECT BHL



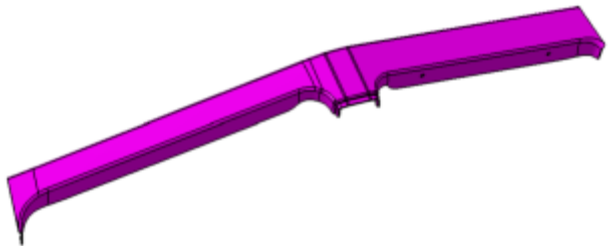
DOOR INNER LH/RH
MAT 1.6MM D513



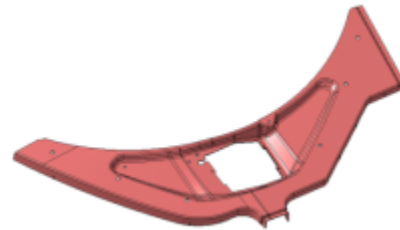
FIREWALL
MAT 3.0MM S355J2



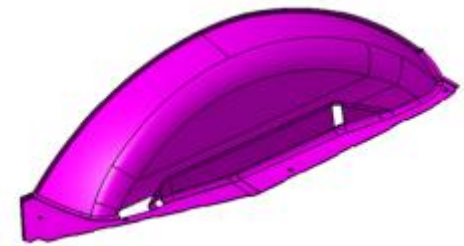
DOOR OUTER LH/RH
MAT 1.6MM D513



RAIL LH/RH
MAT 3.0MM S355J2



FENDER SIDEWALL LH/RH
MAT 3.0MM S355J2

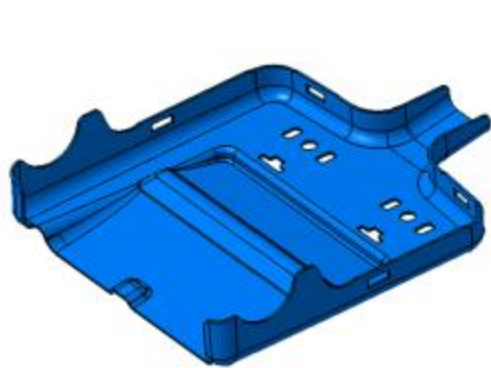


FENDER LH/RH
MAT 3.0MM S355J2

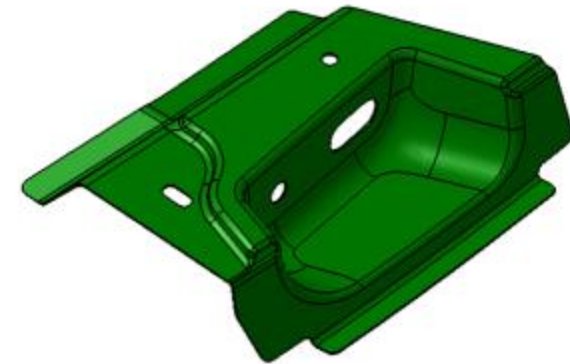
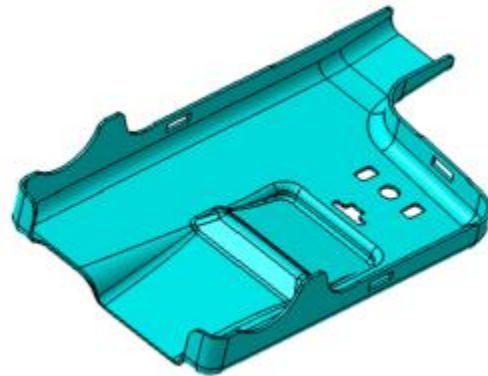
TOOLING DEVELOPED FOR DOGA SPAIN



REFUERZO BACA
MAT 1.5 MM ZSTE220+Z100MB



SUPPORT ENROULEVR DOUBLE & SIMPLE SUPPORT REEL
MAT 1.5 MM S420MC



HRO 1542009 REFUERZO BISAGRA
MAT 1.2 MM DX53+Z100MB

PNL RR QTR UPR INR LH/RH- DRAW DIE

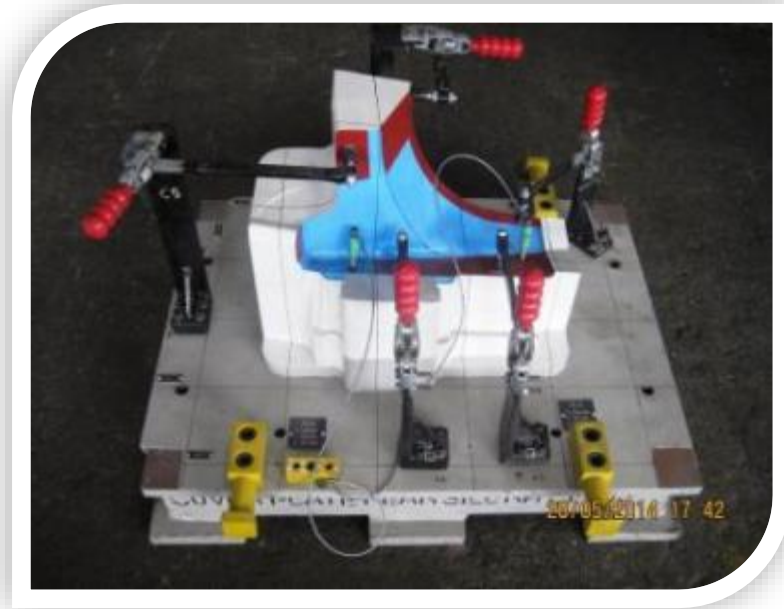


PNL RR QTR UPR INR LH/RH – PART OFF & CAM TRIM DIE



CHECKING FIXTURE

CHECKING FIXTURE
DEVELOPMENT



FORGING PARTS AND TOOLING



LEAF SPRING MTG BKT



LOWER SADDLE BKT



S - CAM MKT BKT

BIW PRESS PARTS



BRACKET CROSS MEMBER



BRACKET TRANS



BRACKET CROSS MEMBER



BRACKET SPRING DOME

NON AUTOMOTIVE PRESS PARTS



METAL PAN

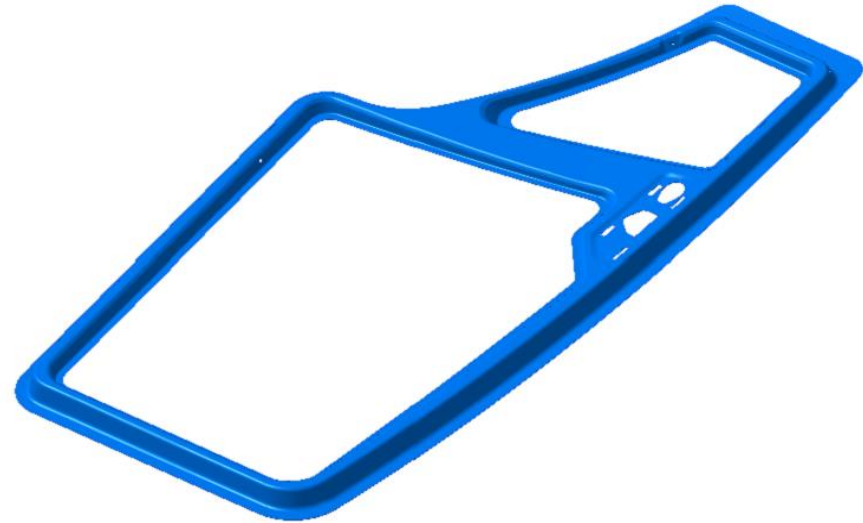


CROSS MEMBER

JCB PRESS PARTS

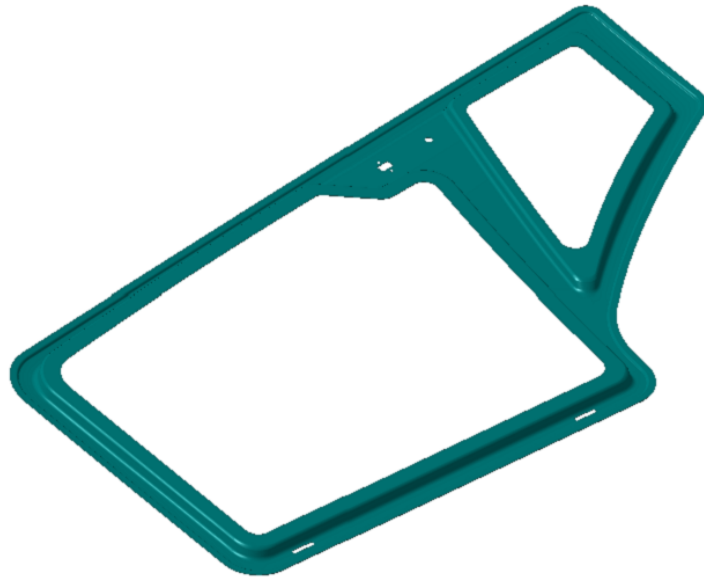


DOOR_INNER LH
MATEL D 513
THK. 1.6MM



DOOR_INNER RH
MATEL D 513
THK. 1.6MM

JCB PRESS PARTS

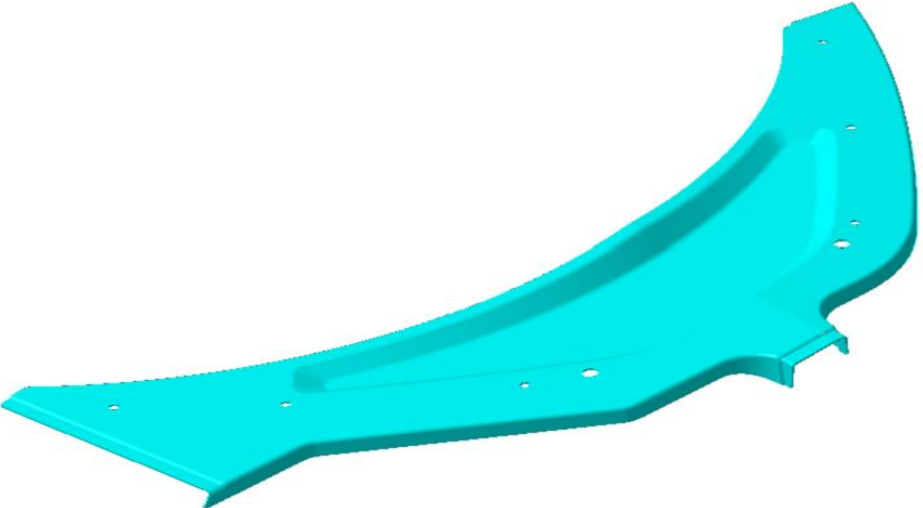


DOOR_OUTER LH
MATEL D 513
THK. 1.6MM

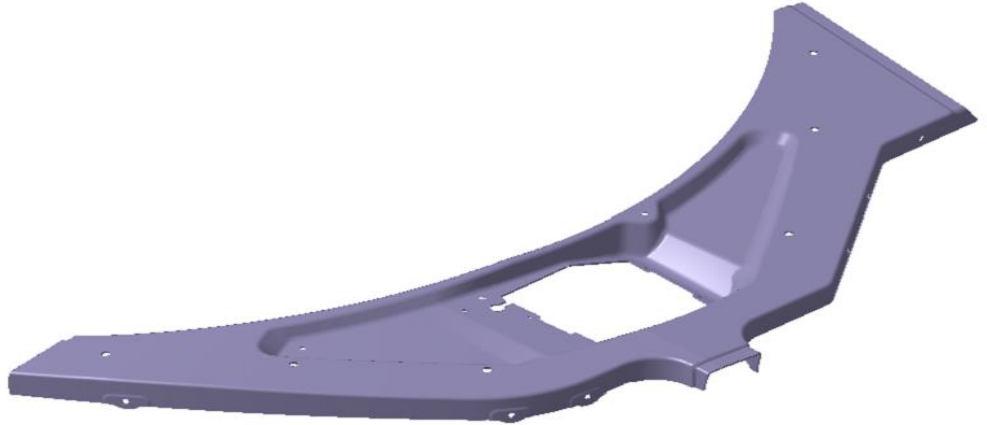


DOOR_OUTER RH
MATEL D 513
THK. 1.6MM

JCB PRESS PARTS

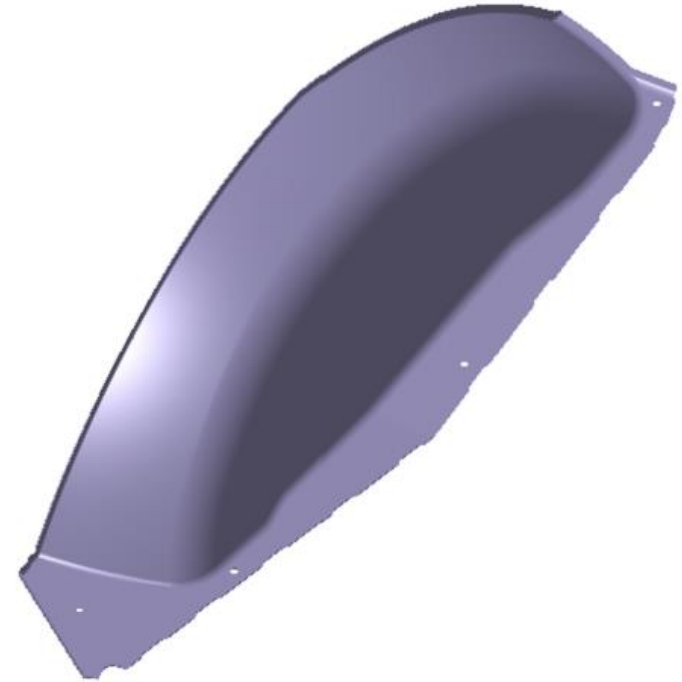
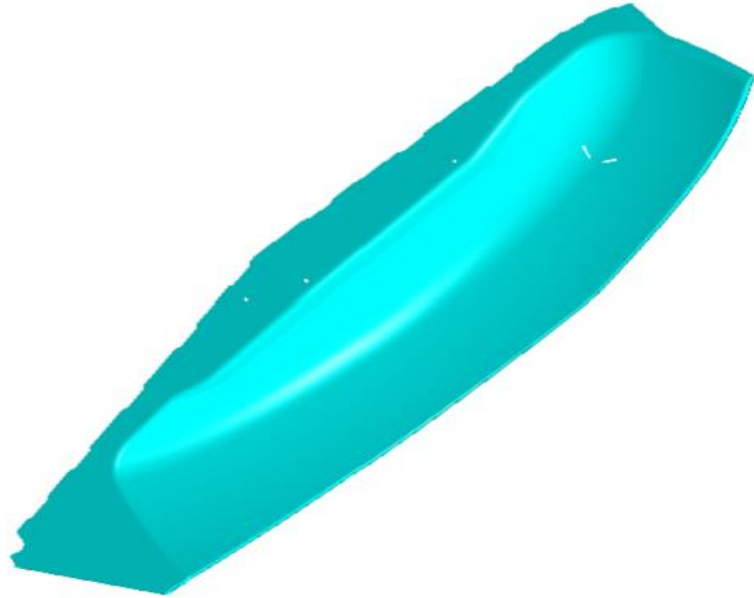


FENDER_SIDE_WALL_LH MATEL S355
THK. 3.0MM



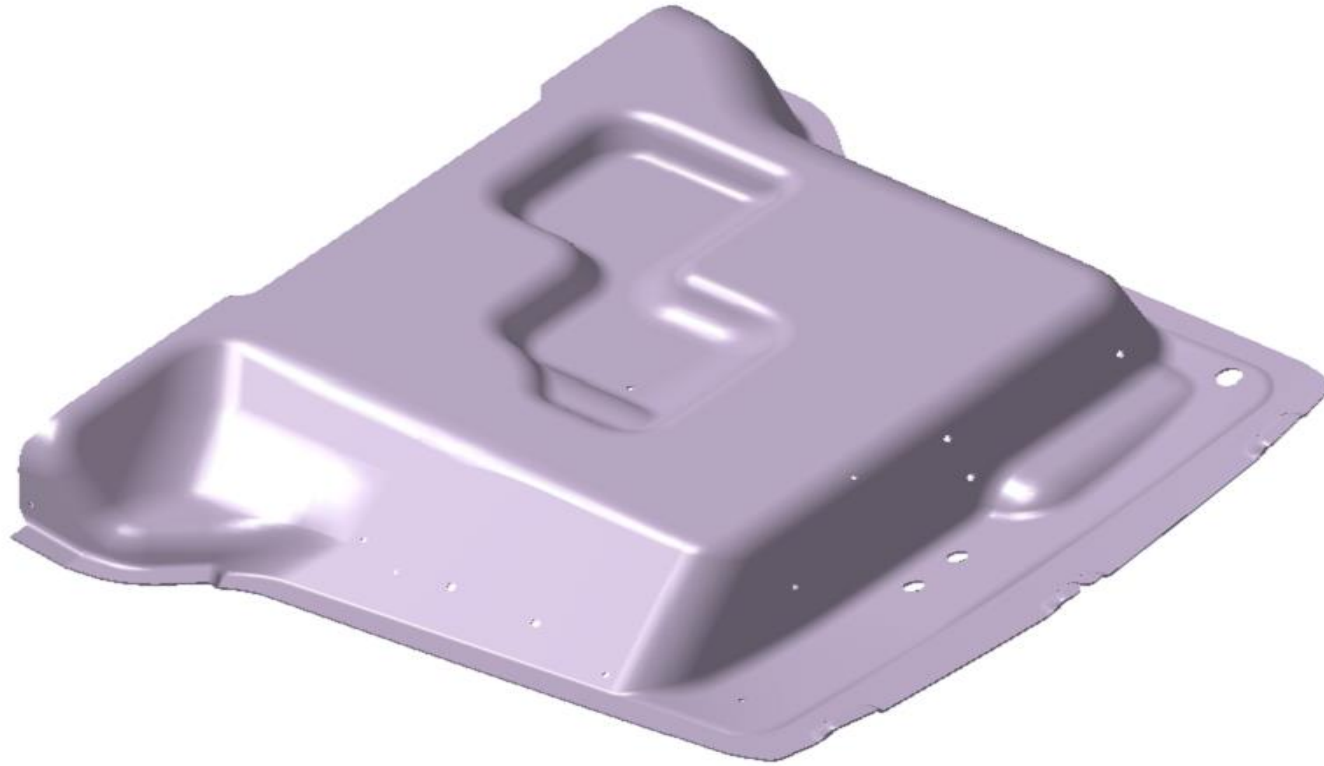
FENDER_SIDE_WALL_RH MATEL S355
THK. 3.0MM

JCB PRESS PARTS



FENDER_LH-RH MATEL D 513 THK. 2.0MM

JCB PRESS PARTS



FIREWALL MATEL: EN10025 S355 J2 THK. 3.0MM

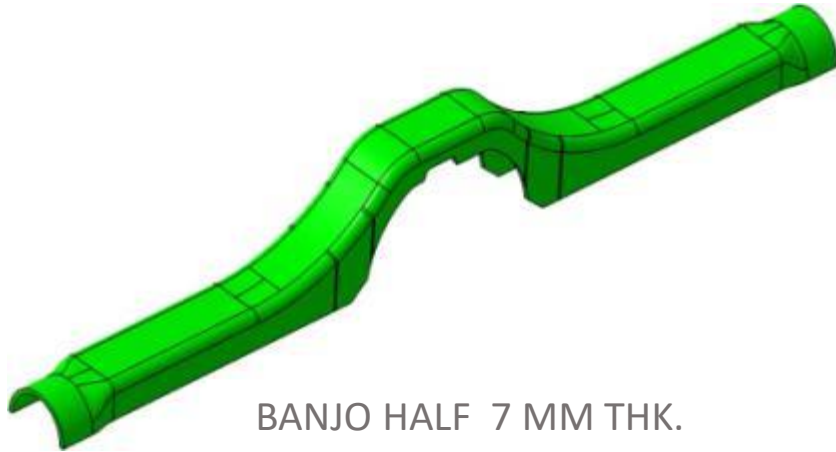
AXLE HOUSINGS PRESS PARTS



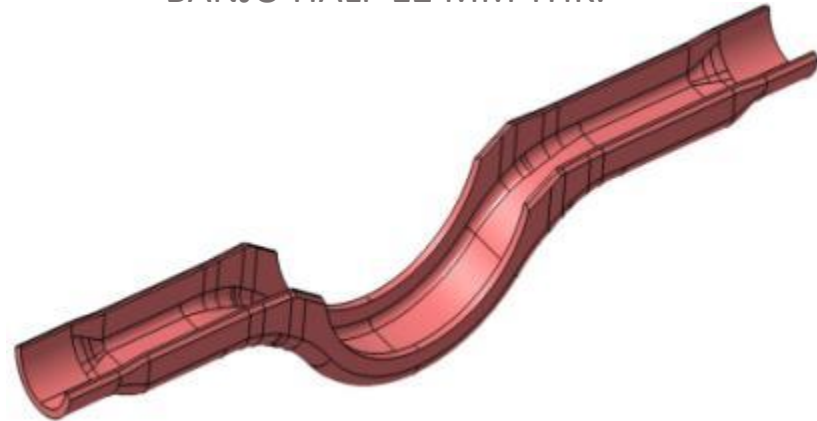
BANJO HALF 4 MM THK.



BANJO HALF 12 MM THK.



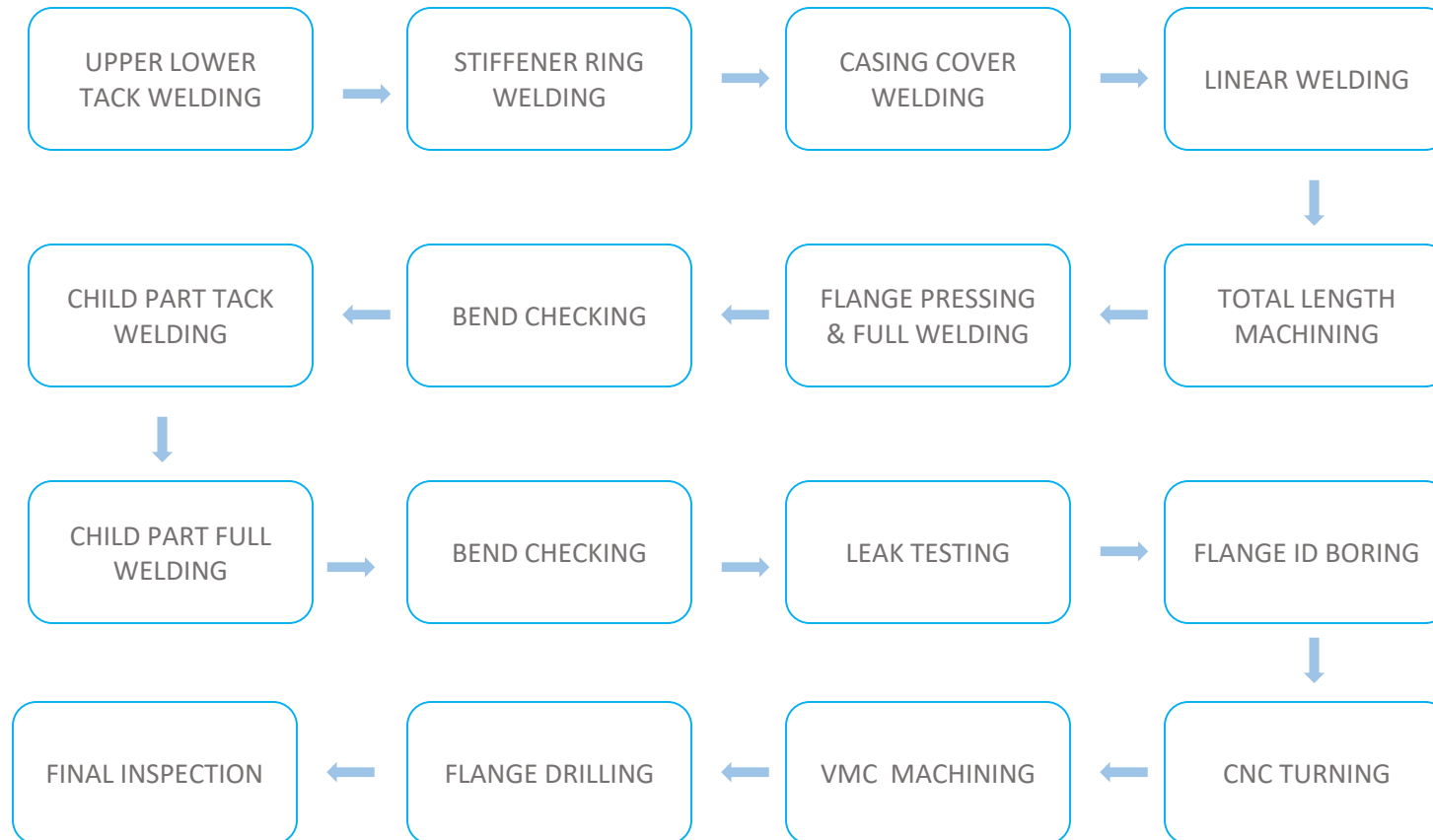
BANJO HALF 7 MM THK.



BANJO HALF HOT FORM 14 MM

LIGHT COMMERCIAL AXLE HOUSING PRODUCTION LINE

AL 307 BANJO



LIGHT COMMERCIAL AXLE HOUSING PRODUCTION LINE



PRODUCTION LINE



FLANGE DRILLING SPM



FLANGE BORING SPM



STIFFNER RING BORING



LEAKAGE TESTING MACHINE

TAG AXLES HOUSING PRODUCTION LINE

ROOT RUN MACHINE



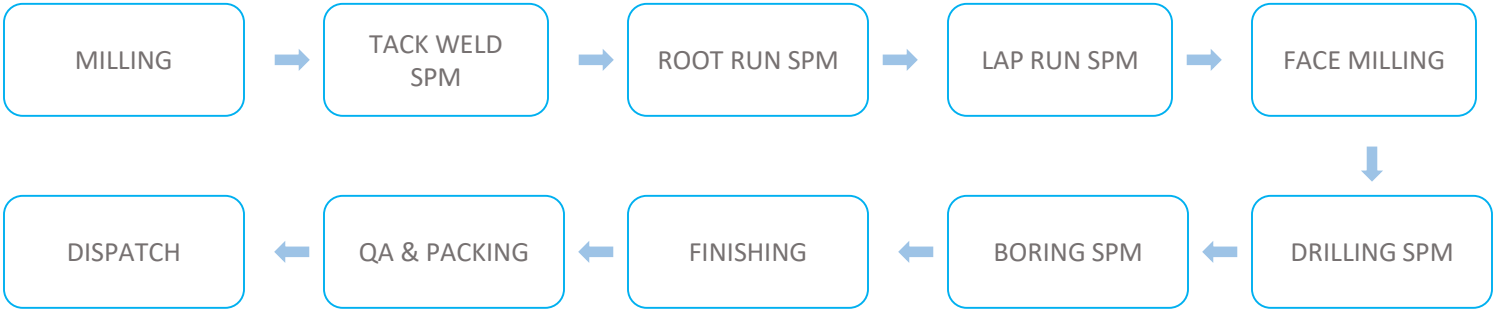
LAP RUN MACHINE



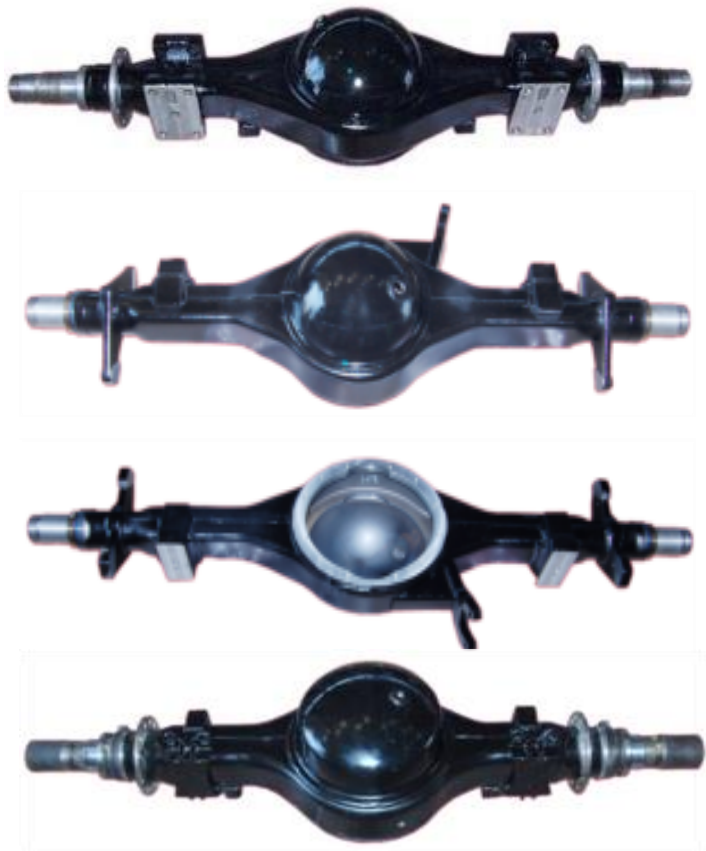
TOTAL LENGTH MACHINE



BORING MACHINE



AXLE HOUSINGS



Y1-4 VARIANTS
T-40
T-32
DICV9 TON
DICV 12 TON
DICV 12 TON CONST.
DAF 8.22 AIR & STEEL
DAF 8 T OPTRA
DAF 10.26 STEEL &AIR
10 TON ALEXANDER
DENNIS E200
DAF 5 TON
0.75 TON ACE
1.0 TON MICROBUS
800 CC DICOR ACE
DEAD AXLE
AL 307 DOST
7T DICV- SPICER
TANDEM AXLE



SPRING MOUNTING ASSEMBLY



INHOUSE CMM FACILITY



BED SIZE (2500*1200*1000)

ROBOTIC WELDING



NAME- ROBOTIC WELDING MACHINE
WELDING M/C MAKE- LINCON ELECT.
ROBOT MAKE- FANUC
QUANTITY- 2 NOS.