COOPER GASKETS

Moving ahead with excellence…

COMPANY PROFILE

Established	: 1978
Sales Turnover	: 272 Million
Covered Area	:2100 Square Metres
Location	:Panchkula, Haryana
Number of Employees	:80

LEADERSHIP ORGANIZATIONAL CHART

MR. M.R BATTA

MANAGING DIRECTOR

Exp. 45 Years

MR. SUDHIR SABLOKE

DIRECTOR

Exp. 42 Years

MR. MANAV BATTA

DIRECTOR
SALES & MARKETING

Exp. 16 Years

MR. VIVEK SHARMA

HOD- SALES, PURCHASE & PRODUCTION

EXP: 12 YEARS

MR. RAMESH

HOD- HR

EXP: 27 YEARS

MR. AJAY PATHANIA

HOD- RESEARCH & DEVELOPMENT

EXP: 14 YEARS

MR. SAIDUL ISLAM

HOD - TOOL ROOM & MAINTENANCE

EXP: 38 YEARS

MR. DEVENDER

HOD - ACCOUNTS

EXP: 27 YEARS

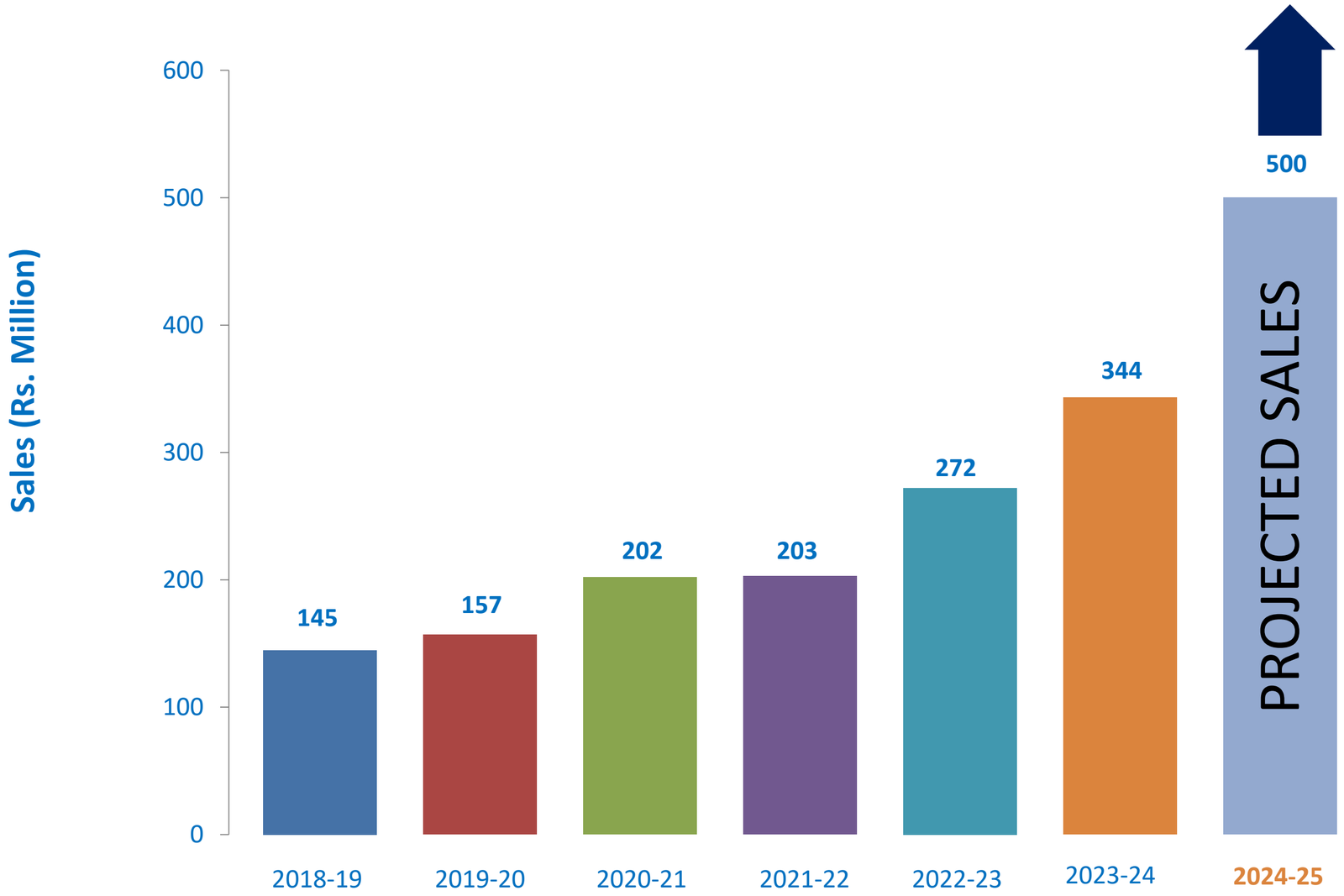
MR. AMIT KUMAR

HOD - QUALITY

EXP: 16 YEARS

Cylinder Head Gaskets | Secondary Gaskets | Heat Shields | Rubber Gaskets | Washer & Shims | Exhaust Manifold Gaskets | MLS Gaskets

SALES


Sales (Rs. Million)
600
500
400
300
200
100
0
145
157
202
203
272
344
500
PROJECTED SALES
2018-19
2019-20
2020-21
2021-22
2022-23
2023-24
2024-25

CUSTOMERS

Mahindra

ROYAL ENFIELD

swaraj Mahindra Rise.

SML ISUZU

SONALIKA INTERNATIONAL

TMTL

bemL NEW FRONTIERS. NEW DREAMS

KOEL GREEN BY KIRLOSKAR

SAME FURTHER AHEAD

ACE

VIKAS GROUP

PREET

VST

TENNECO

PRODUCT RANGE

Cylinder Head Gasket

Exhaust Manifold Gasket

Secondary Gaskets

Oil Pan

Valve Cover

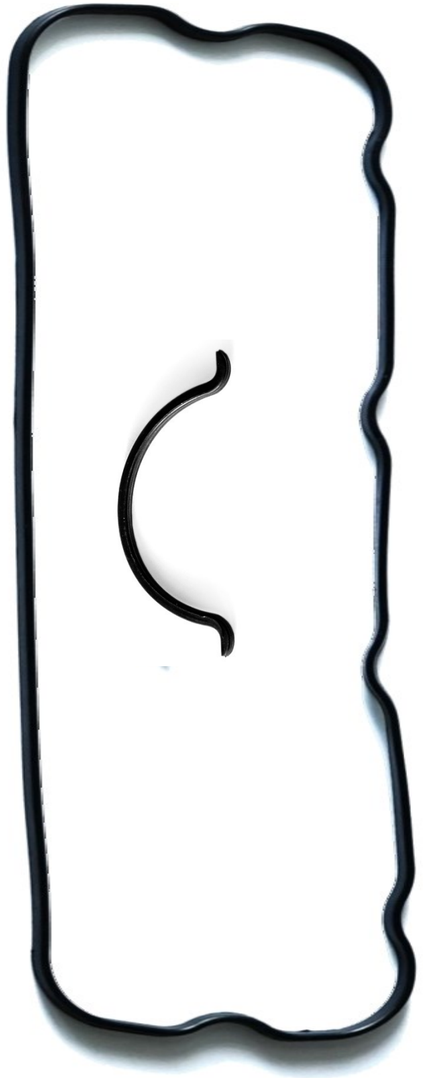
Intake Manifold

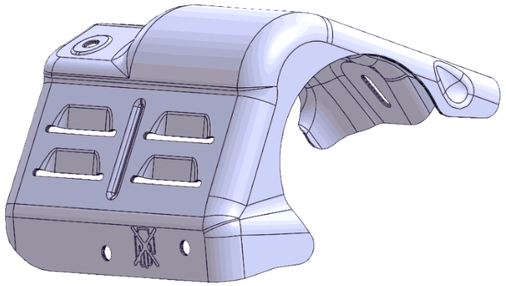
Oil Pump

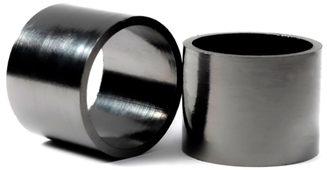
Water Pump

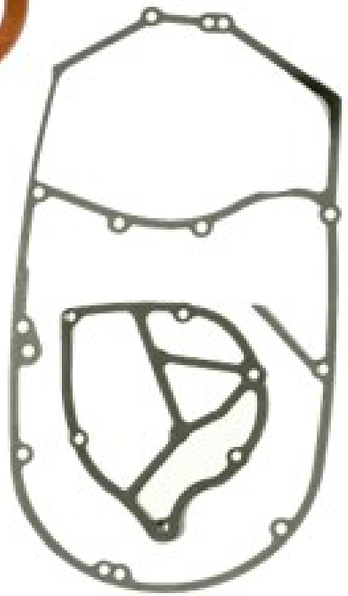
Shims & Washers

Heat Shield









Cylinder Head Gaskets | Secondary Gaskets | Heat Shields | Rubber Gaskets | Washer & Shims | Exhaust Manifold Gaskets | MLS Gaskets

CYLINDER HEAD GASKET

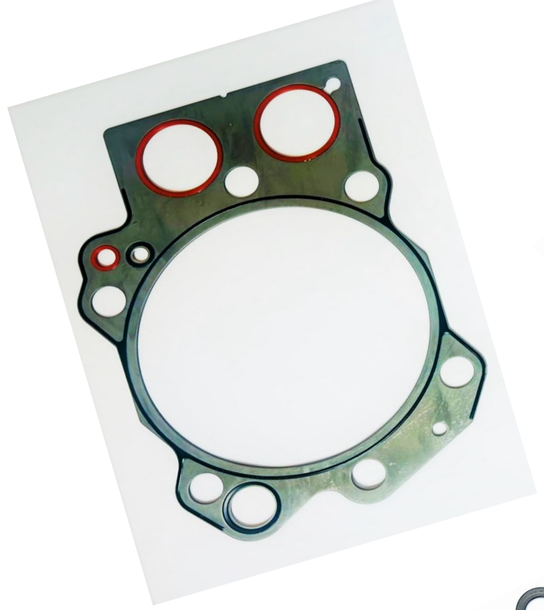
Capacity: 350 CC to 3500 CC

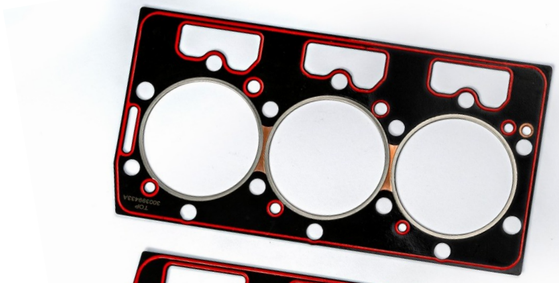
Multi Layer Steel

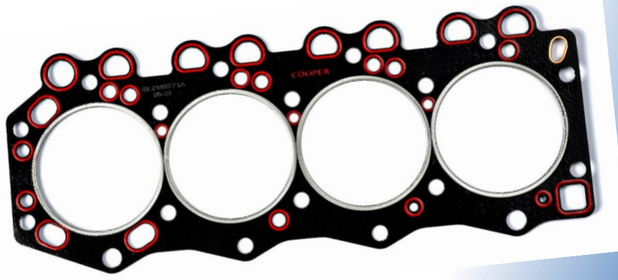
Single Layer Steel

Steel Edge Moulded

Non Asbestos Composite

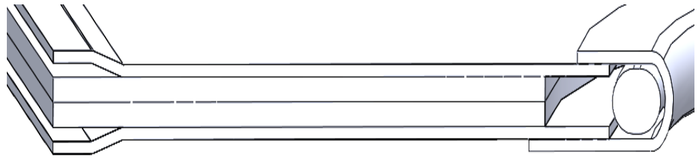






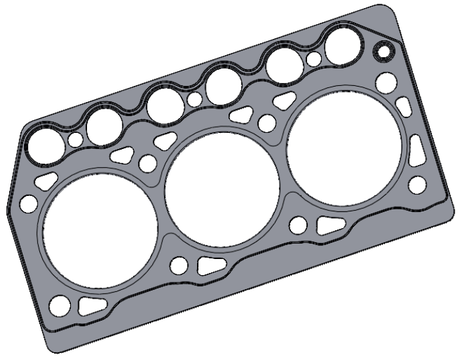
Cylinder Head Gaskets | Secondary Gaskets | Heat Shields | Rubber Gaskets | Washer & Shims | Exhaust Manifold Gaskets | MLS Gaskets

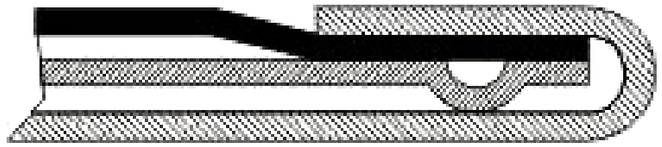
Multi Layer Steel Cylinder Head Gasket



Advantages

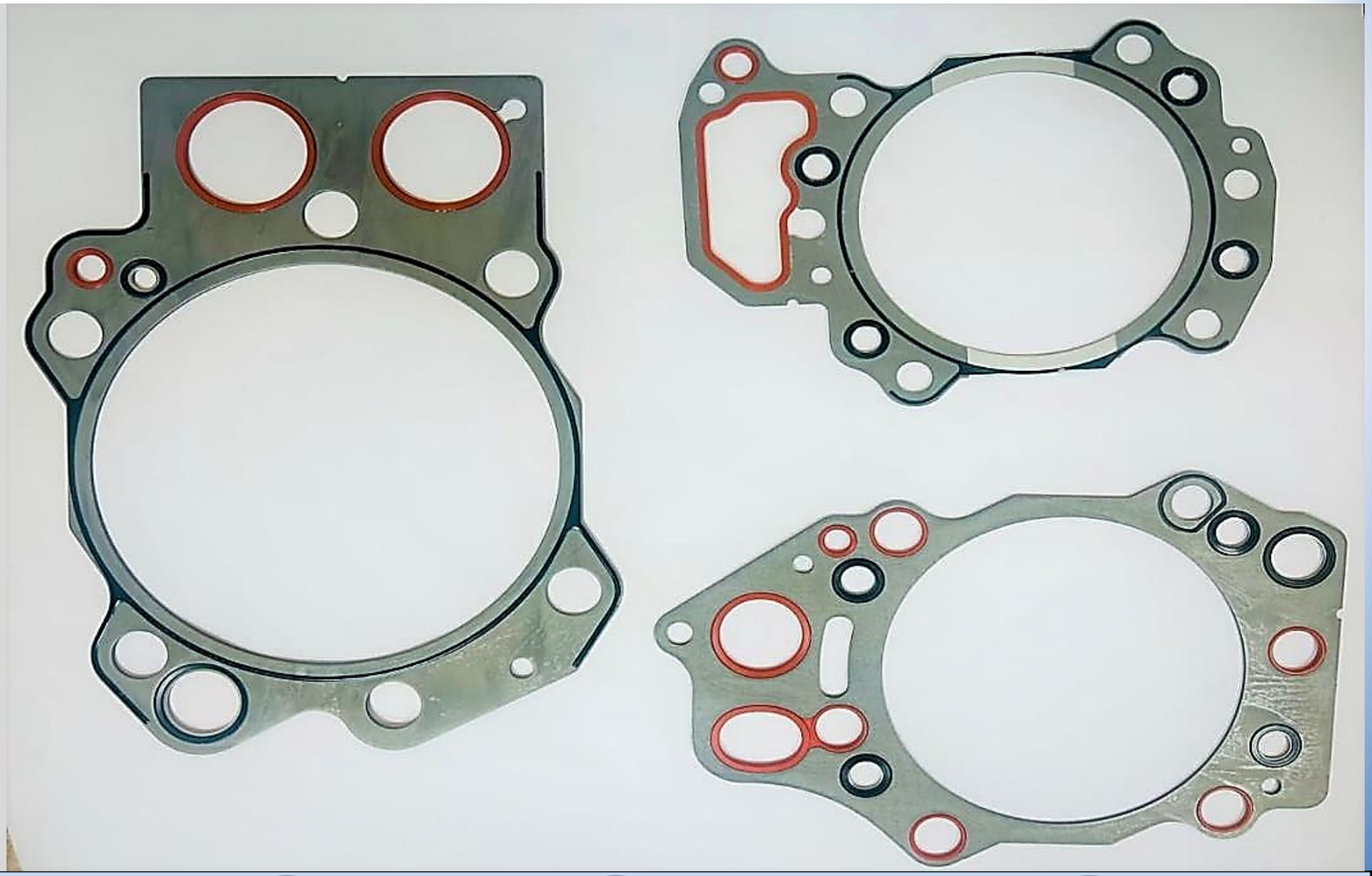
- Durability
- Lower combustion chamber crevice volume
- Reduced bore distortion
- Low hot creep relaxation
- Elastic conformability





Steel Edge Moulded Cylinder Head Gasket

Used on Heavy Duty Engines



Cylinder Head Gaskets • Secondary Gaskets • Heat Shields • Rubber Gaskets • Washer & Shims • Exhaust Manifold Gaskets • MLS Gaskets

Exhaust Manifold and Seal Ring Gaskets

Single Layer Steel

Non-Asbestos Composite

Wiremesh + Graphite

Ring with Non Asbestos

Spiral Wound Gasket

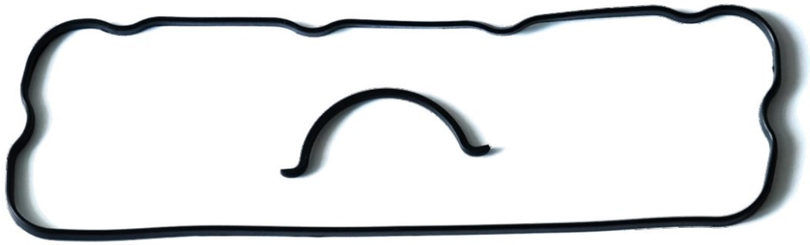
Secondary Gasket

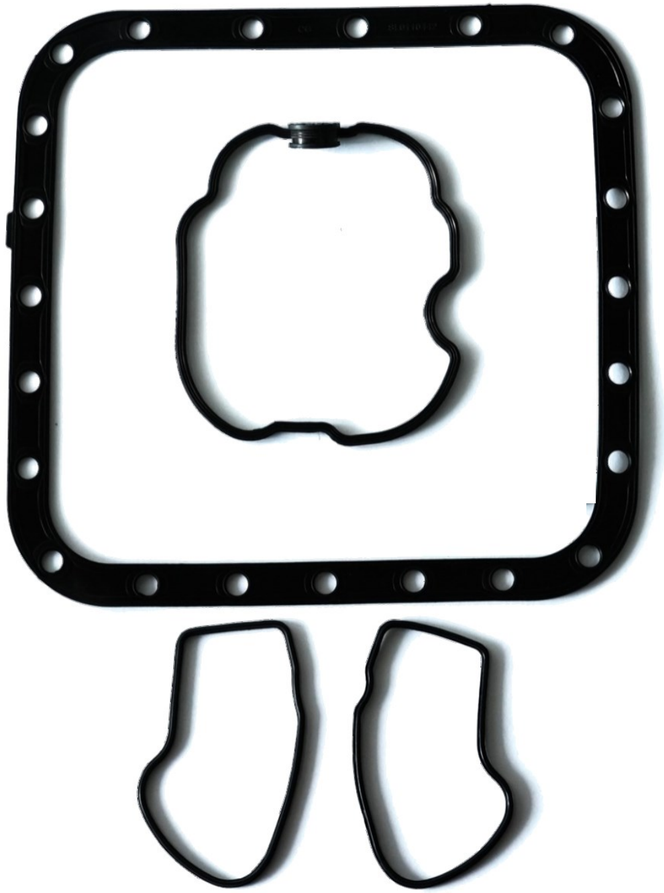
Rubber Gaskets

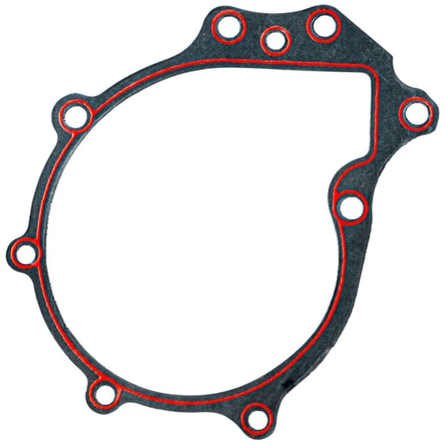
Composite

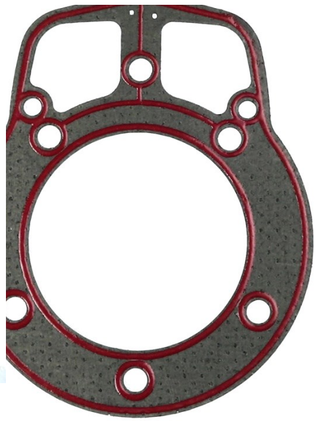
Paper/Jointing Sheets

Rubberised Cork

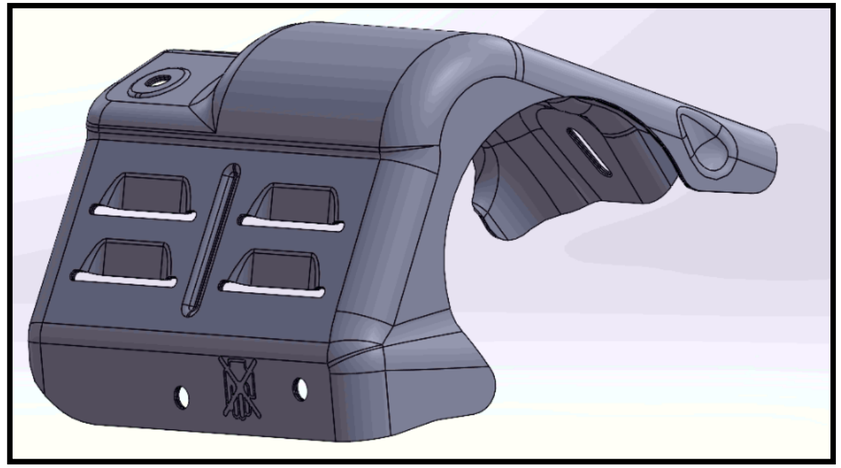


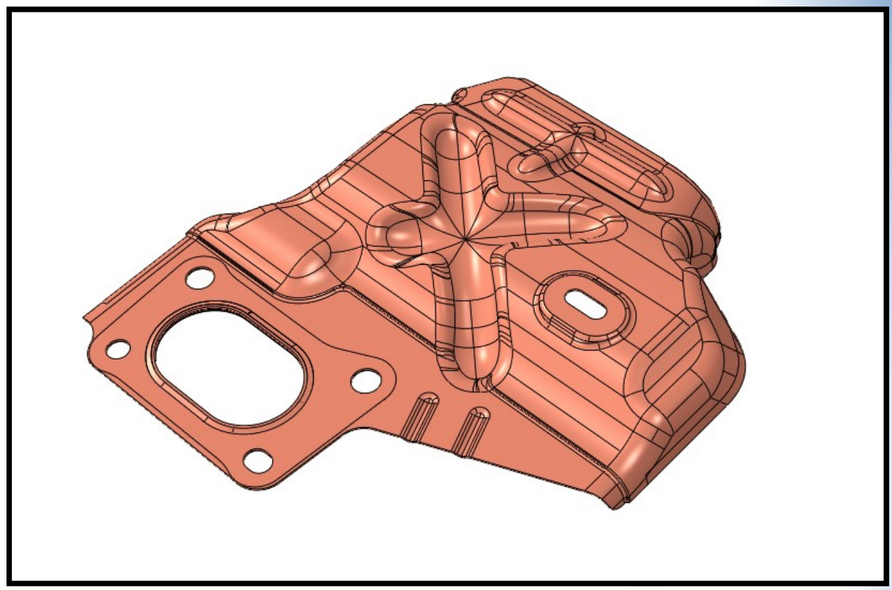






Heat Shields





Aluminized Steel

SA1D Aluminized Steel Heat Shields

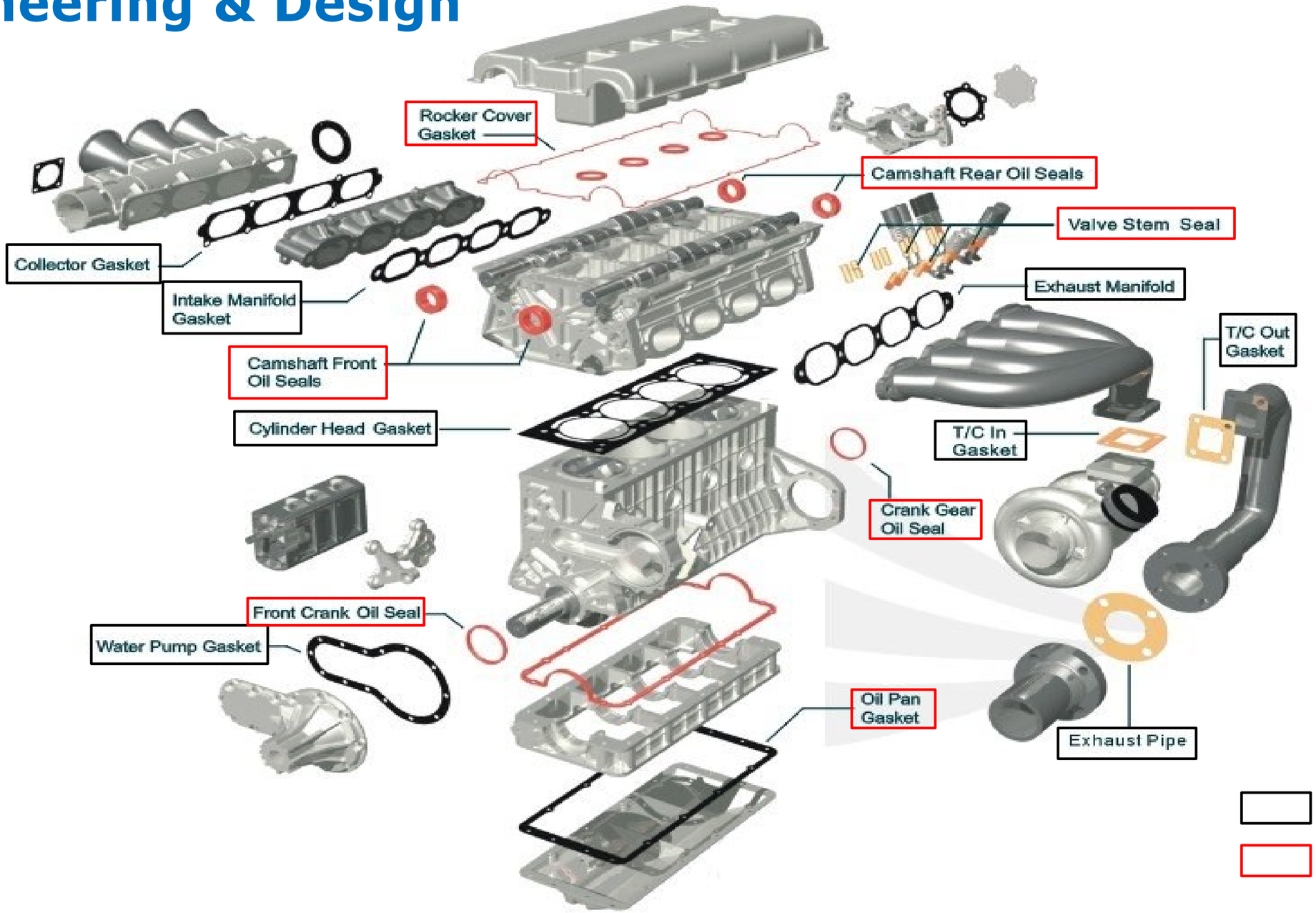
Dimpled Heat Shield

Acrylic

Composite

Engineering & Design

Engineering & Design



Metal/Non-Metal Gaskets

Rubber Gaskets

Cylinder Head Gaskets | Secondary Gaskets | Heat Shields | Rubber Gaskets | Washer & Shims | Exhaust Manifold Gaskets | MLS Gaskets

Engineering & Design

Cylinder Head Gaskets

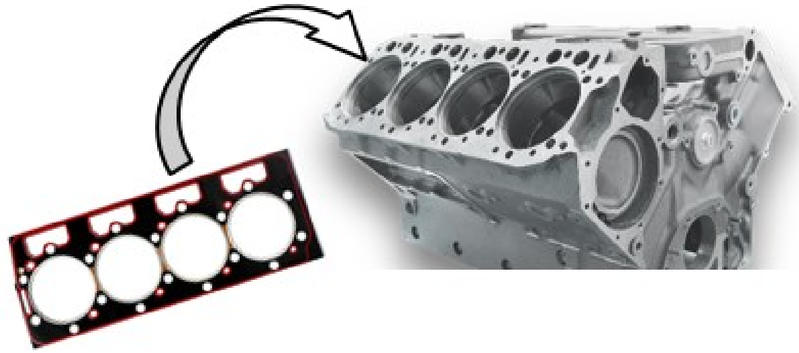
What is Required From a Cylinder Head Gasket?

It must seal both internally and externally:

- Combustion Gas
- Oil
- Coolant

It must meet the customer's expectations of:

- Durability
- Consistent Quality
- Ease of Assembly/Disassembly
- Pressure Resistance
- Cost



How Does a Cylinder Head Gasket Function :

- Achieves gas and fluid sealing by redistributing available clamp load to sealing areas

- The Cylinder Head Gasket must :
  - accommodate any lack of head/block stiffness and flatness
  - accommodate thermal deflections
  - counterbalance the firing pressure
  - maintain a controlled head/block clearance

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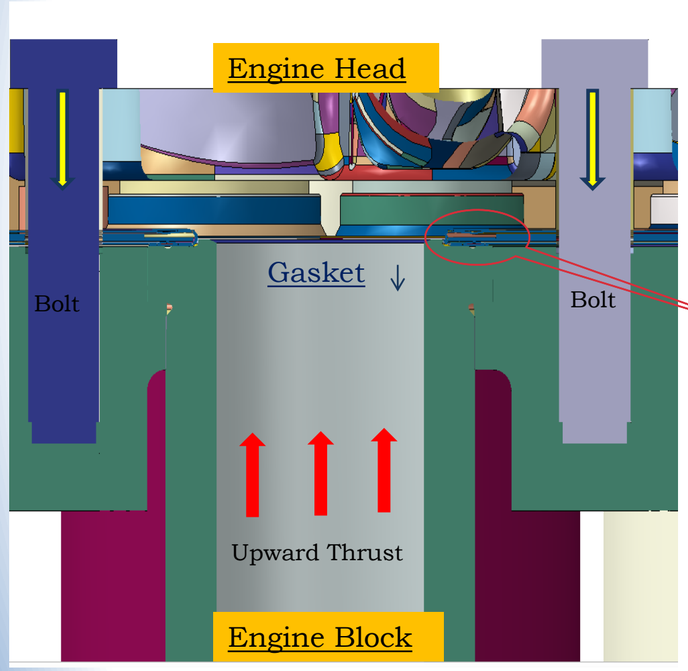
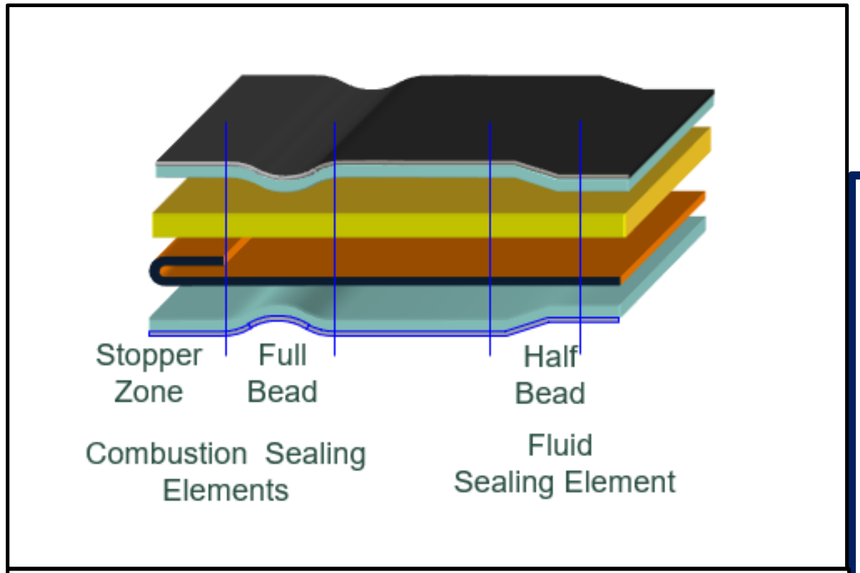
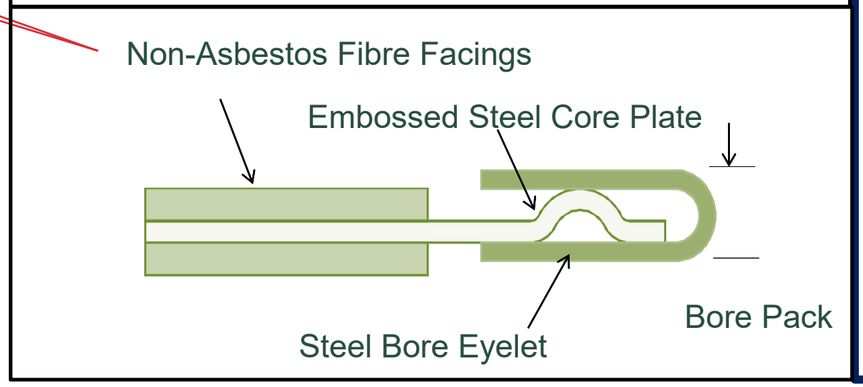
Multi-Layer Steel Gasket







Combustion Gas Sealing

Fluid Sealing

Stopper Zone	Full Bead	Half Bead
		
Static	Elastic	Plastic/ Elastic

Engineering & Design

Inputs required from the Customer

1	Combustion Type		Diesel/Gasoline/CNG
2	Aspiration		Natural/Turbo/Supercharged
3	Ignition		Spark /Compression
4	Compression ratio		
5	Fuel injection type		Carb/Mpi/Spi/Di/IDI
6	Valve Train		Push Rod/SOHC/DOHC
7	Working principle		2 stroke/4 stroke
8	Cylinder configuration		Inline/V type
9	Max. Torque		Nm
10	Max. Power		Kw
11	Speed @ max power		RPM
12	Speed @ max torque		RPM
13	Peak Combustion Pressure		Bar

21	Max oil pressure		bar
22	Max oil Temperature		°C
22.1	Oil and Coolant Passages:		locations and sizes of oil and coolant passages
22.2	Tolerances and Clearances		
23	Oil Grade		
24	Engine Mounting Locations		Required Location snaps
25	Compressed thickness of CHG.		mm

84	Tightening sequence		Nut runner or attach Tightening sequence chart

Gasket Performance Requirements

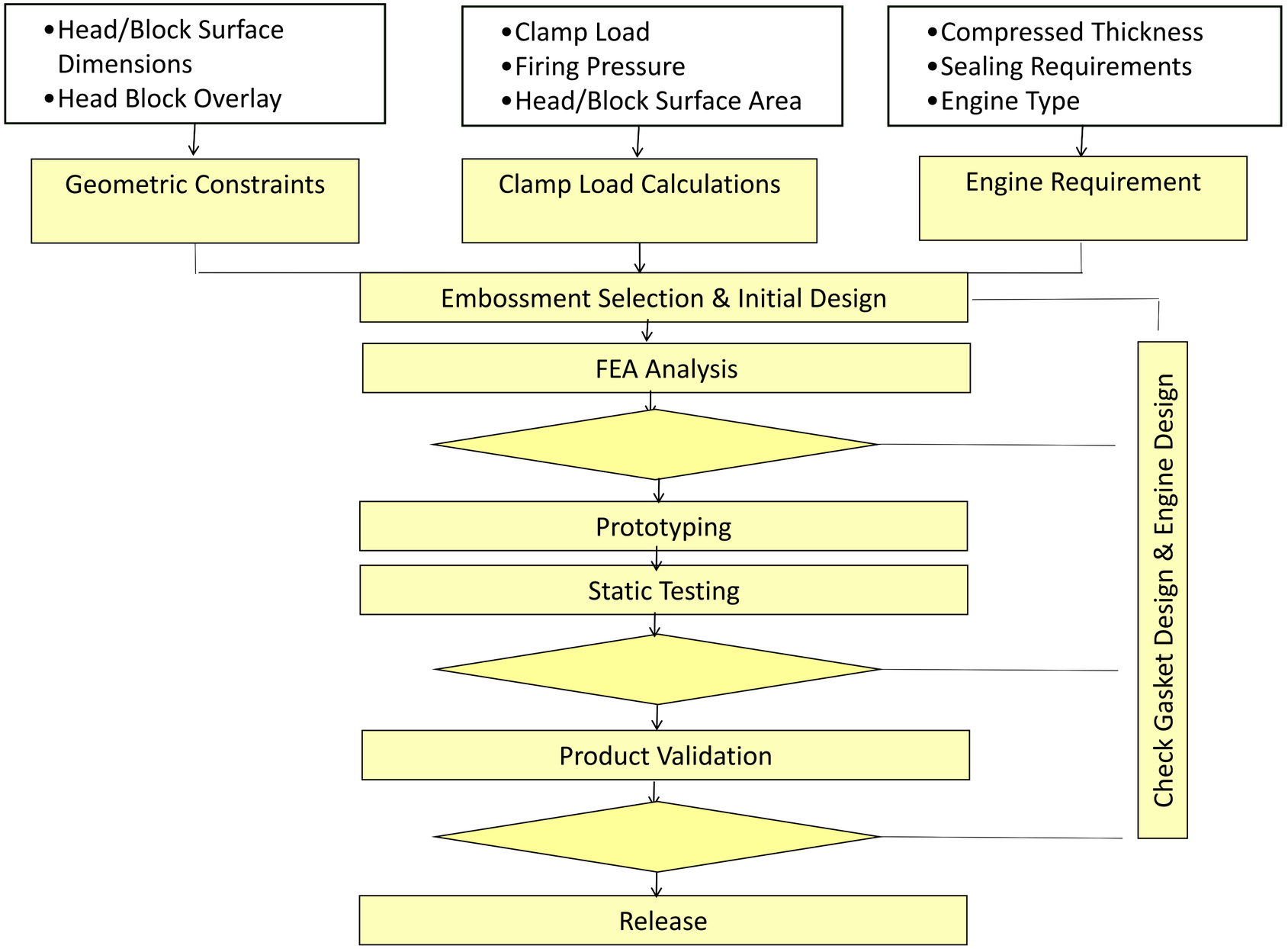
85	Gasket Sealing Acceptance Criteria		For Combustion Bead- If Any
86	Gasket Sealing Acceptance Criteria		For Oil/Water/Bolt Beads-If Any

29	a. Cylinder Head Material		Al-alloy / cast iron
	1. Material Standard		
	2. Young's Modulus		GPa/Mpa/N/mm2
	3. Poisson's Ratio		
	4. Density		Tonne/mm3
	5. Yield Strength at Room Temp		
	6. Yield Strength at an Elevated Temp		
31	Casting Tolerance (Holes/Ports)		Please identify casted holes/ports
	Tolerances (min/max)		µ
31	Machining Tolerance (Cd / Position Tol.)		Please identify machined holes/ports
	Tolerances (min/max)		µ

67	Number of Bolts		
68	Metric Threads Standard		M2-M100-(If Other Please specify)
69	Bolt Grade		
69.1	Bolt head diameter		mm
70	Yield Strength		N/mm2/Mpa
71	Nominal Cylinder Head Bolts force		KN
72	Cylinder Head Bolts strength		N/mm2
73	Expected bolt force loss		%
73.1	Maximum Allowed Elongation		mm
74	Tightening Torque		Nm
	1. Minimum Torque		Nm
	2. Nominal Torque		Nm
	3. Maximum Torque		Nm
75	Equivalent Bolt Force		KN

Engineering & Design

Cylinder Head Gaskets



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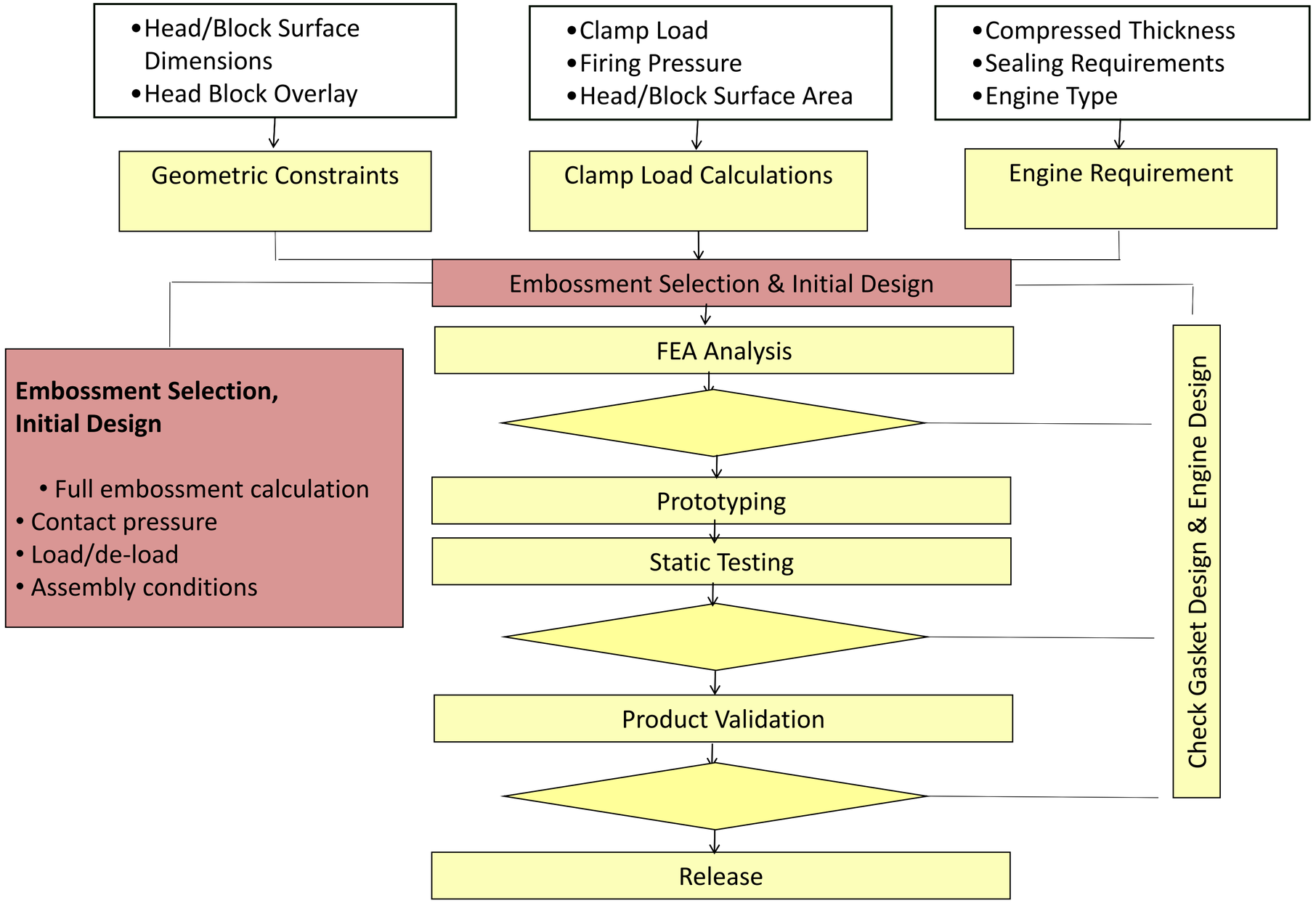


Engineering & Design

Design Calculations

No. of Bolts : 17

Bolt Torque : 49 N-m, 50 N-m, 60Deg

Equivalent Liner Torque : 137 N-m

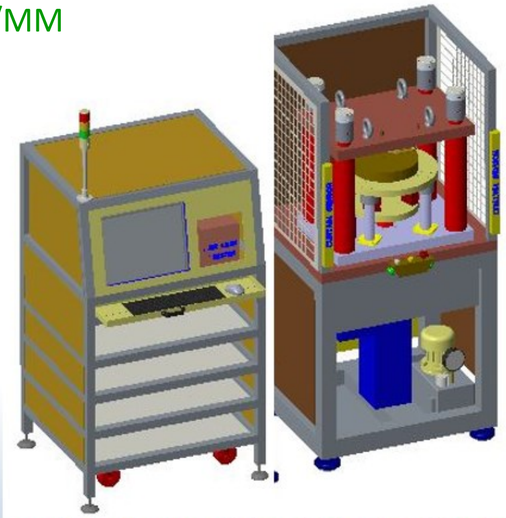
Bolt Load : 64.8 KN

Peak Pressure : 140 Bar

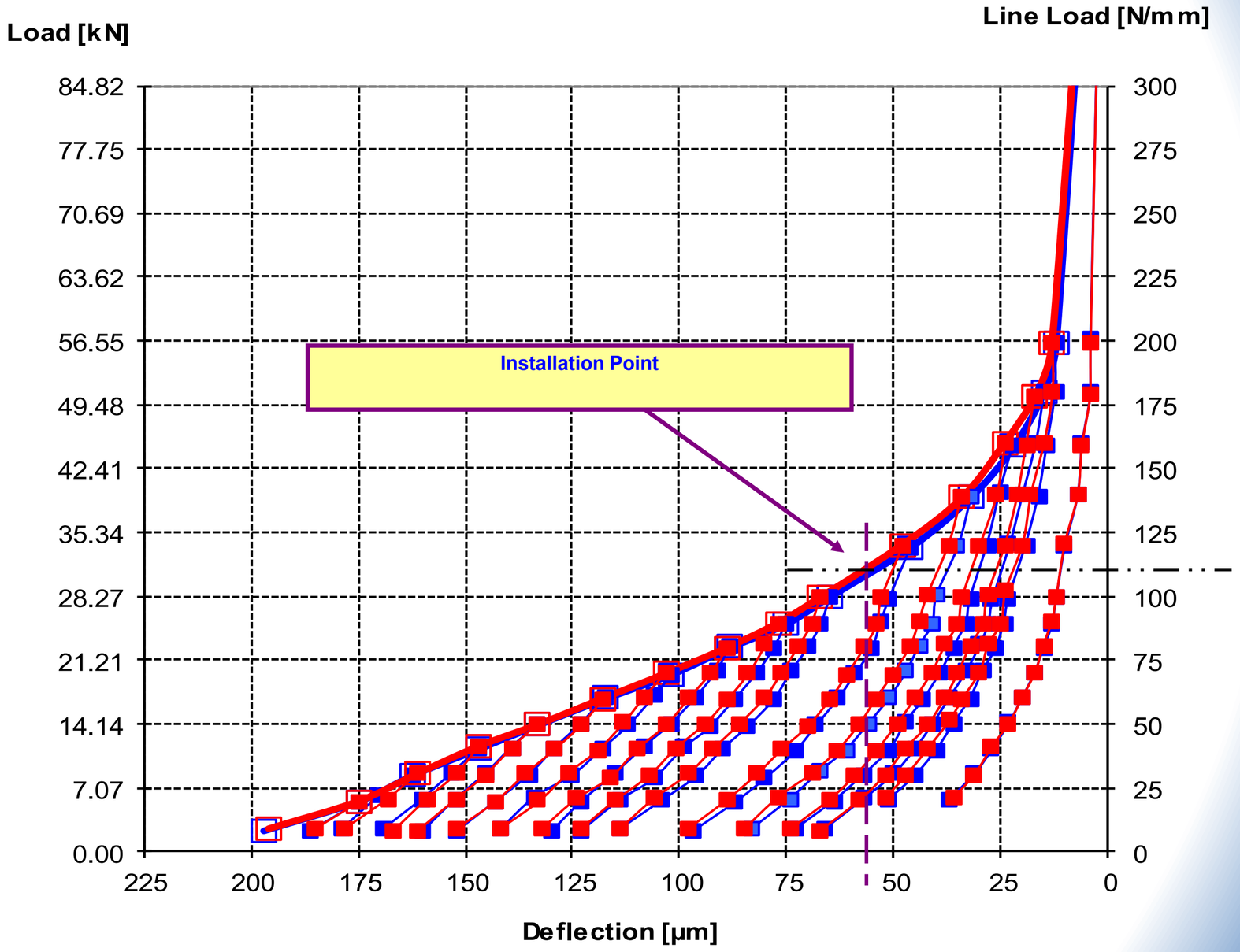
Bore Diameter : 97 MM

No. of Cylinder : 4

- Clamping Factor: 2.58
- Min. Required Line Load @ Installation Point 73.5 N/MM



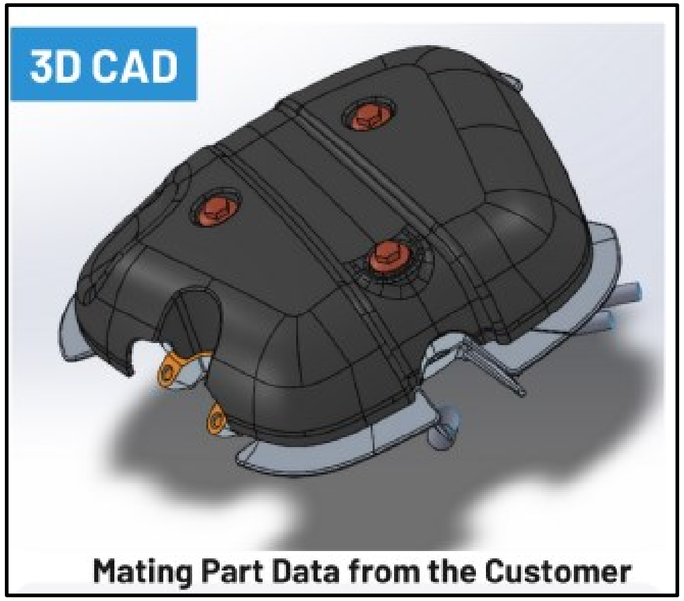
Load Deflection & Leak Testing Machine

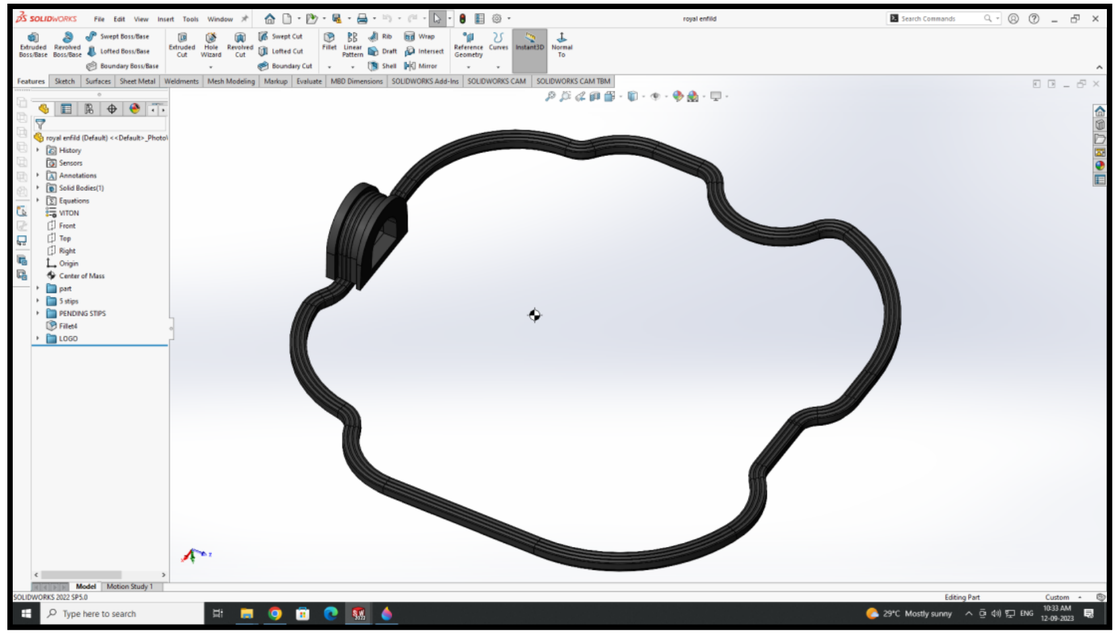


Engineering & Design

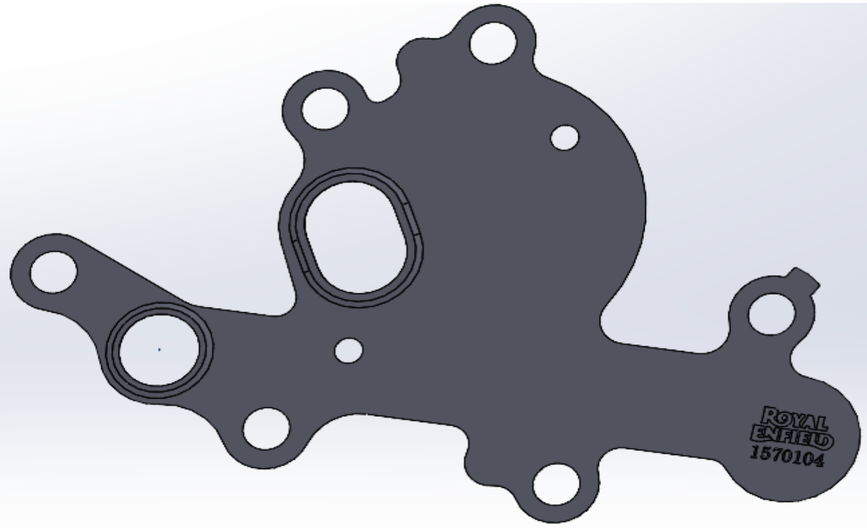
Engineering competence:

SOLIDWORKS





Interfaces: IGES, STEP, Part Files

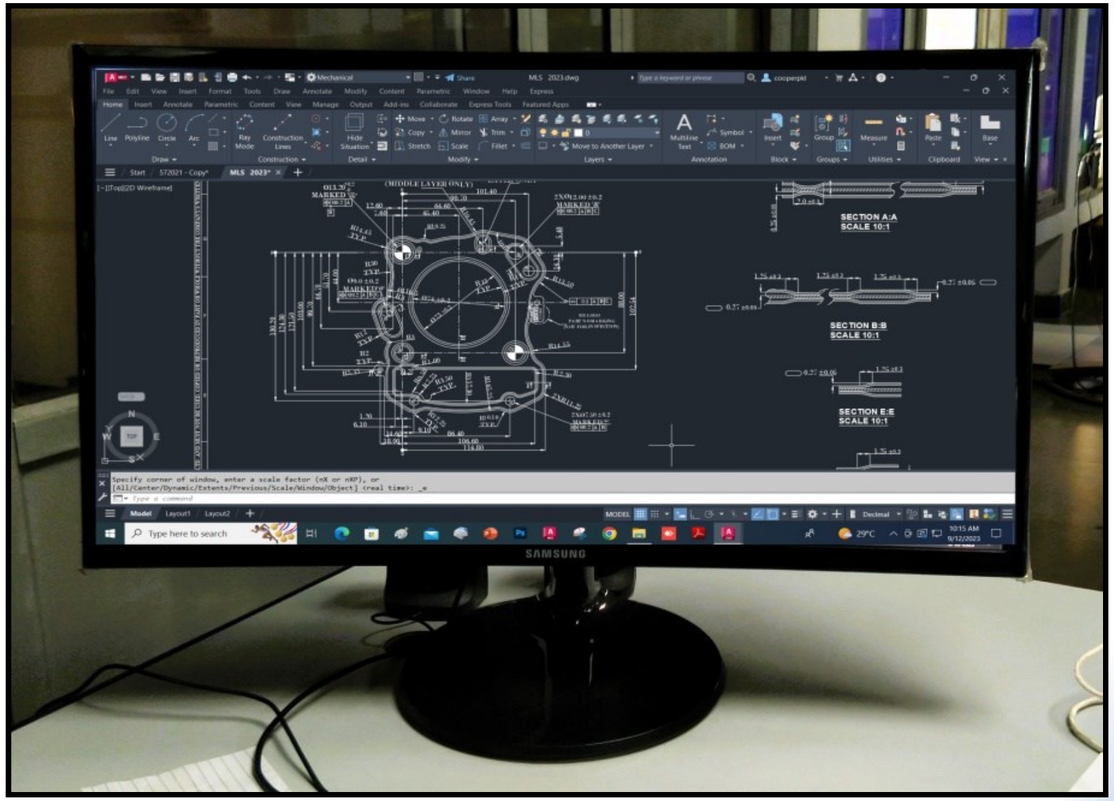


Engineering & Design

Drawing Generations

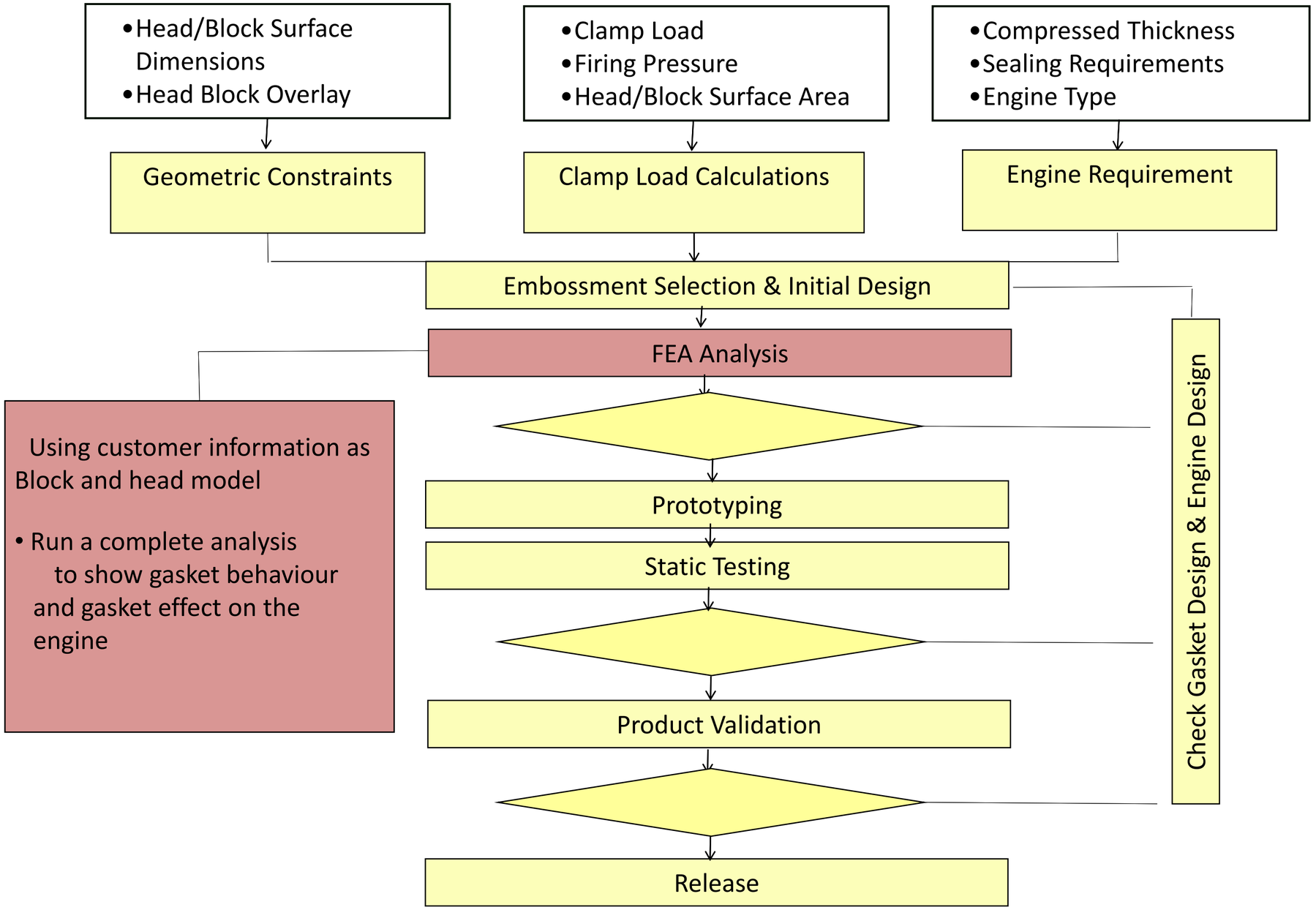
- Geometric shape and Profile Generation.
- Dimensioning and Measurements
- 2D Modeling
- Drafting and Documentation

Interfaces: Dwg, DXF.



AutoCAD 2024

Engineering & Design



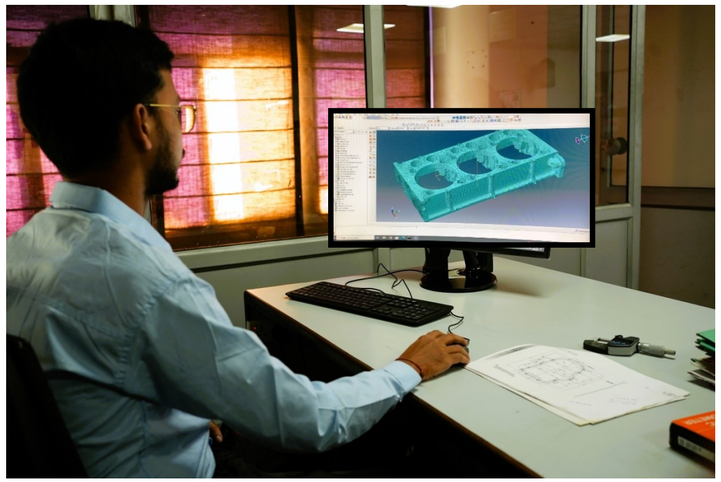
Engineering & Design

Finite Element Analysis

- **Structural** - Linear/Non-Linear Analysis
- **Dynamic Analysis-** behavior under dynamic loading conditions, such as vibration, impact, or shock.
- **Frequency Response Analysis** - Eigen Value Extraction
- Coupled Thermal Structural Analysis
- Thermal Analysis
- Contact Pressure Analysis
- Stress Analysis

Simulation Software

SIMULIA ABAQUS



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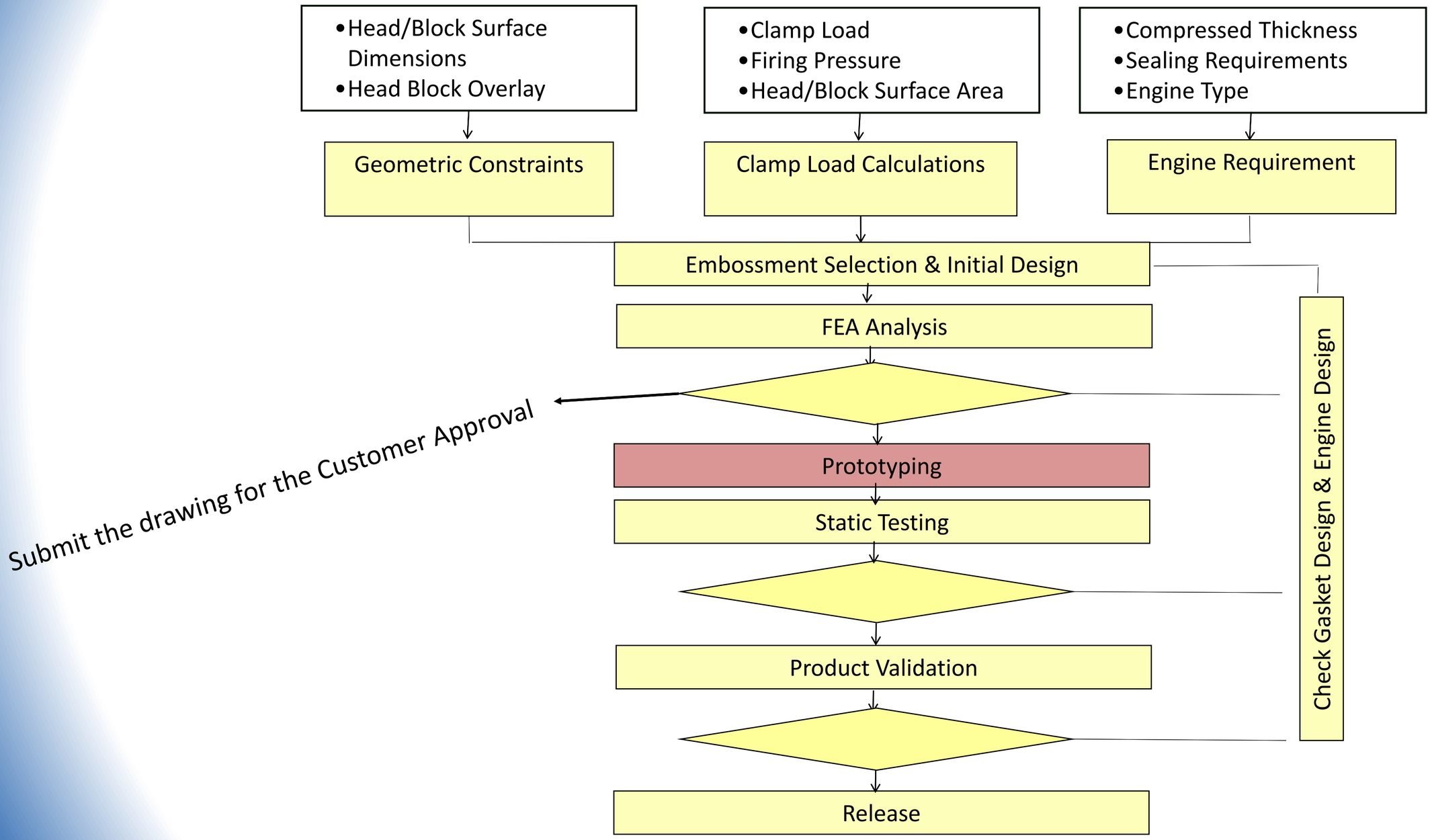

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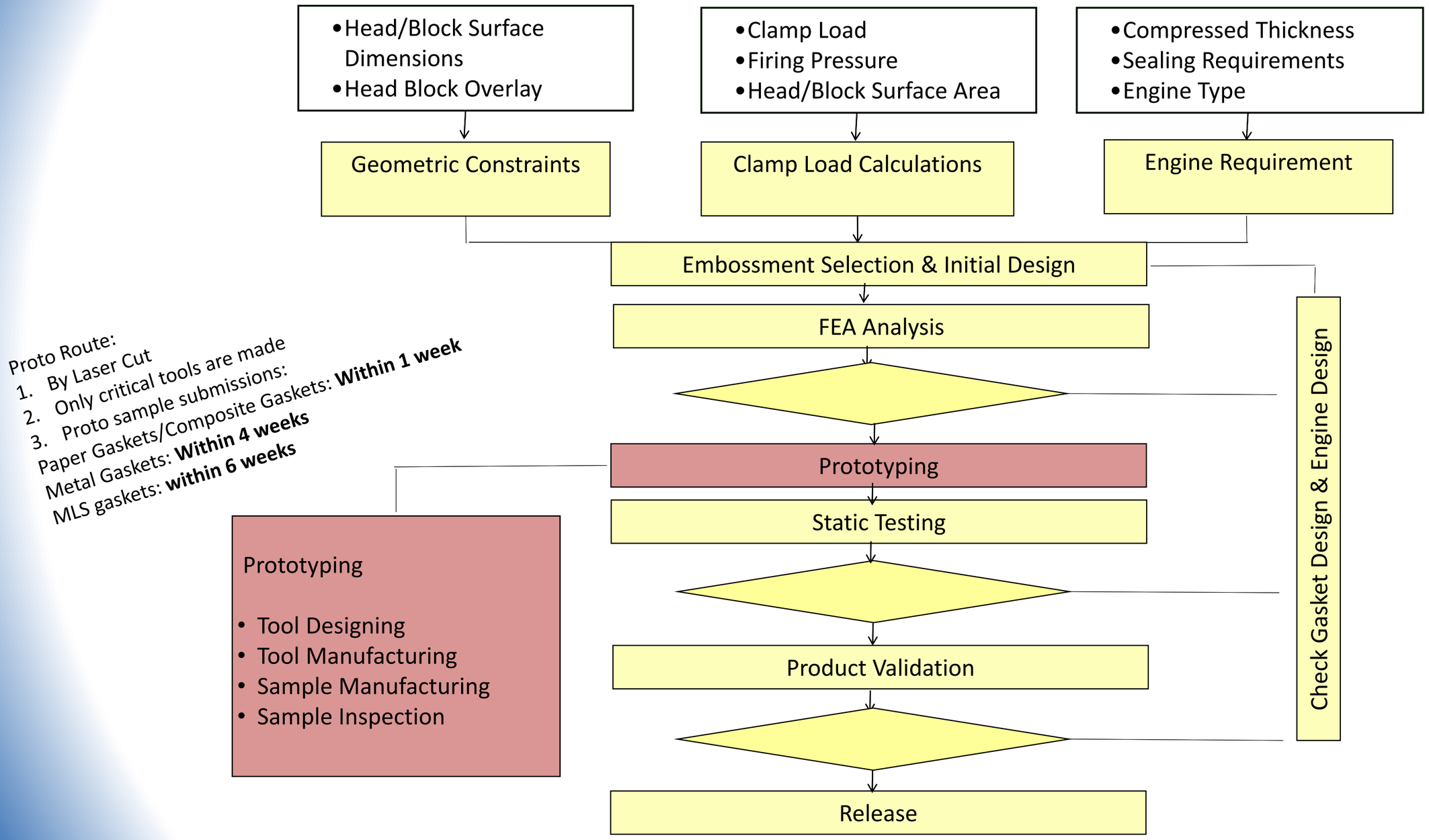
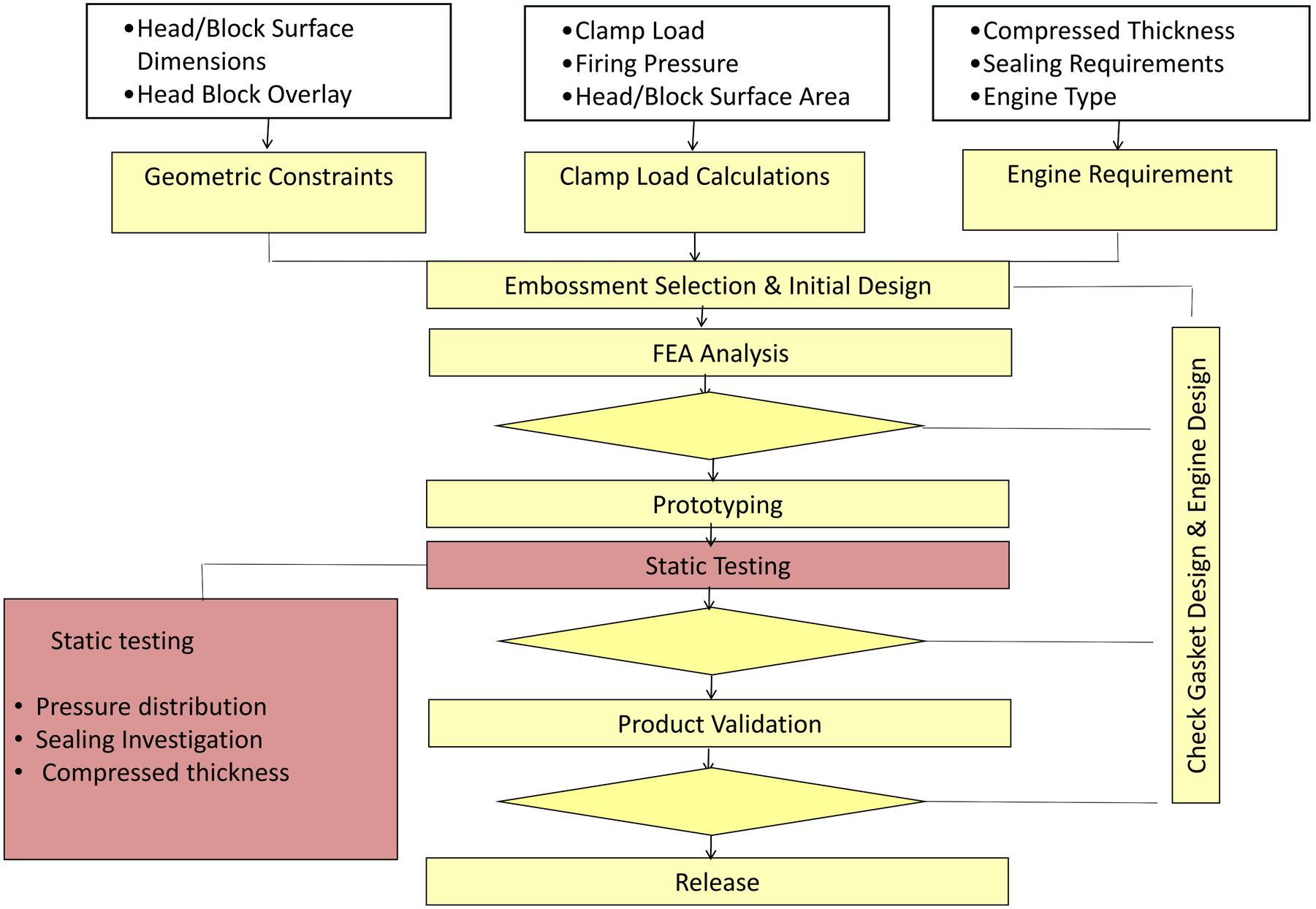


Engineering & Design

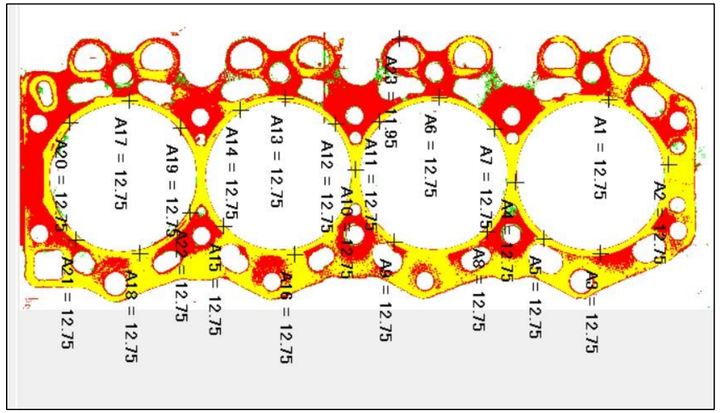


Engineering & Design

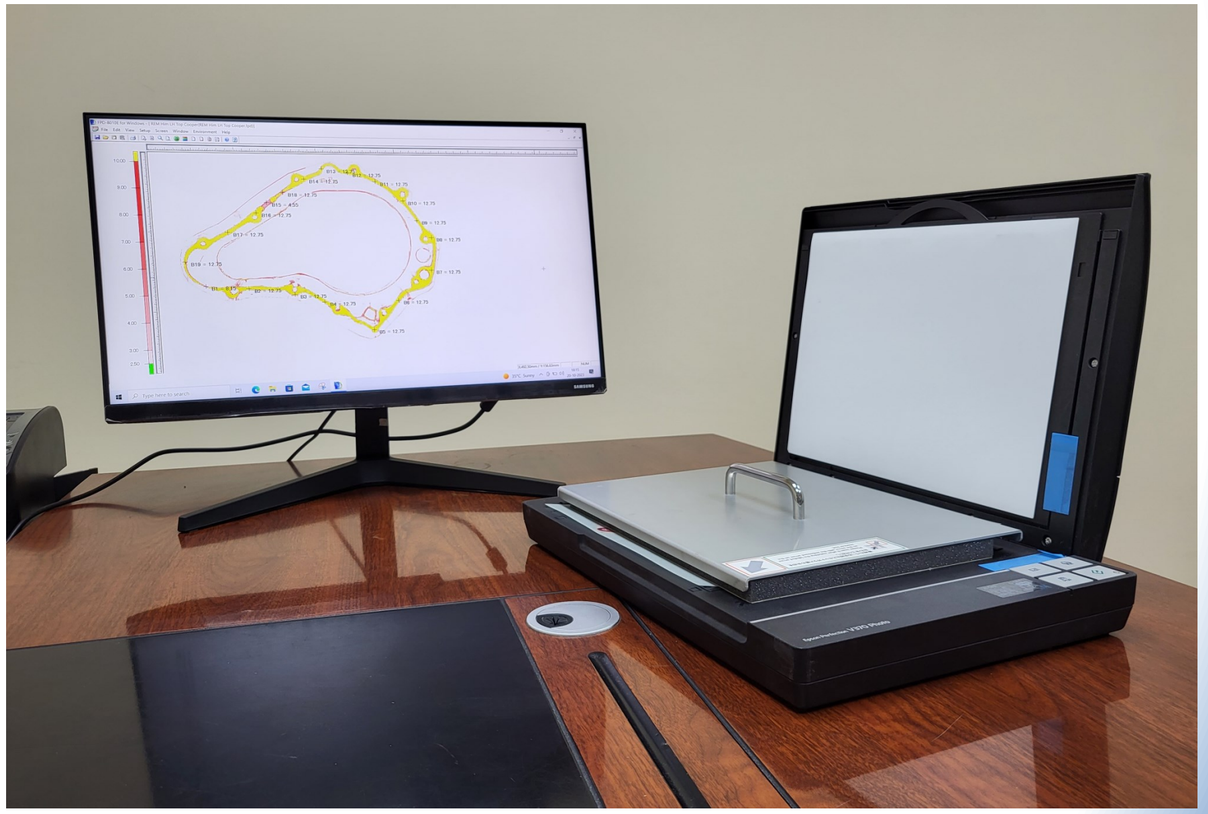
PRESCALE

Static Testing:

Pressure Distribution- Fuji Film

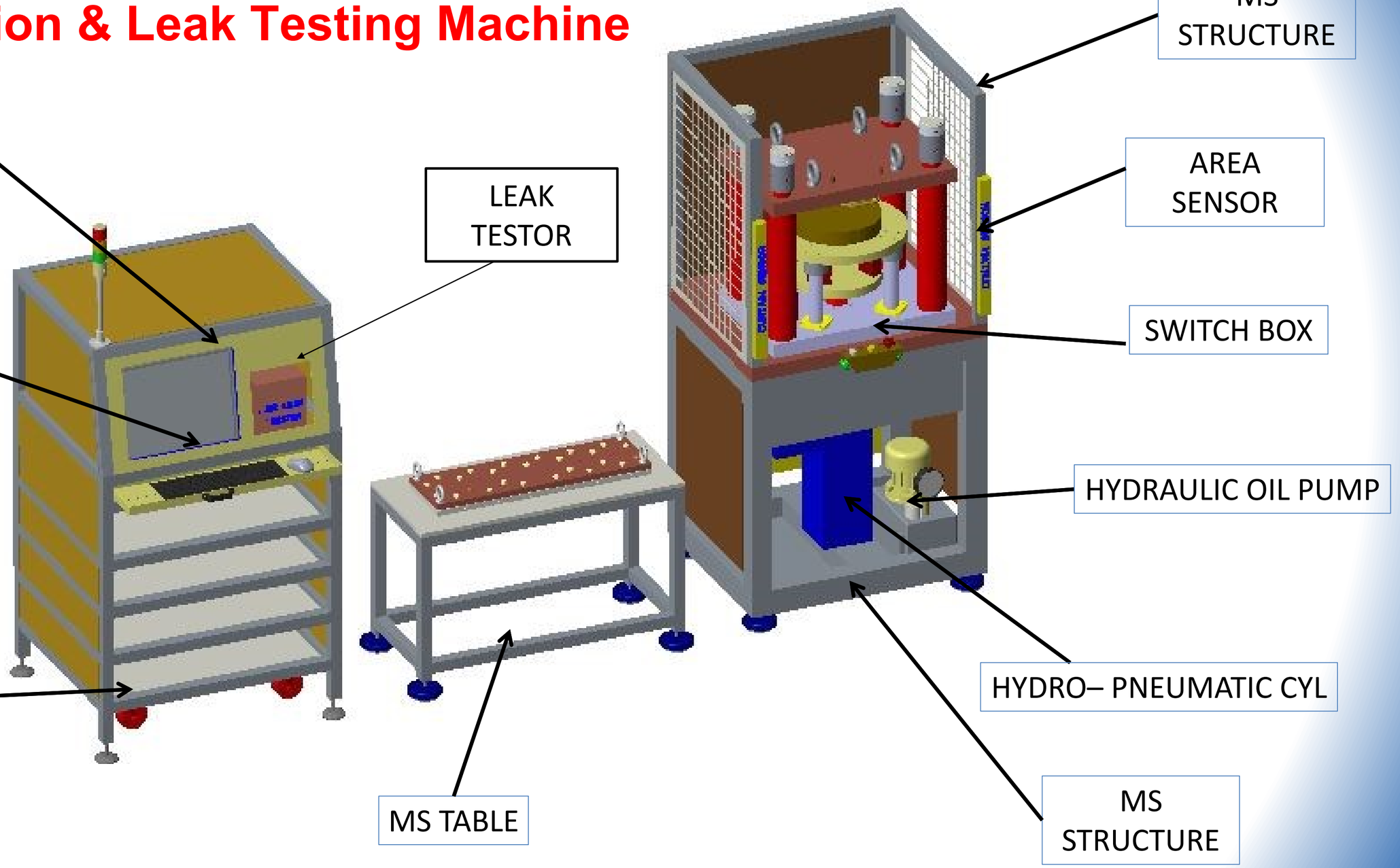


Types	Measurable pressure range [MPa] 1MPa≒10.2kgf/cm²
	0.006 0.05 0.2 0.5 0.6 2.5 10 50 130 300
Ultra Extreme Low Pressure (5LW)	
Extreme Low Pressure (4LW)	
Ultra Super Low Pressure (LLLW)	
Super Low Pressure (LLW)	
Low Pressure (LW)	
Medium Pressure (MW)	
Medium Pressure (MS)	
High Pressure (HS)	
Super High Pressure (HHS)	

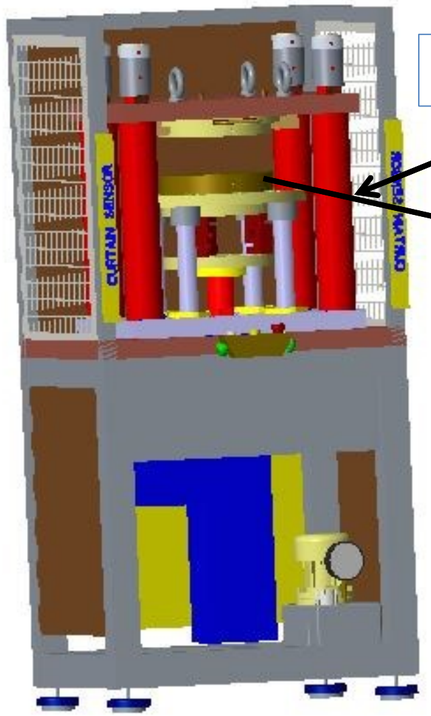


Engineering & Design

Load Deflection & Leak Testing Machine

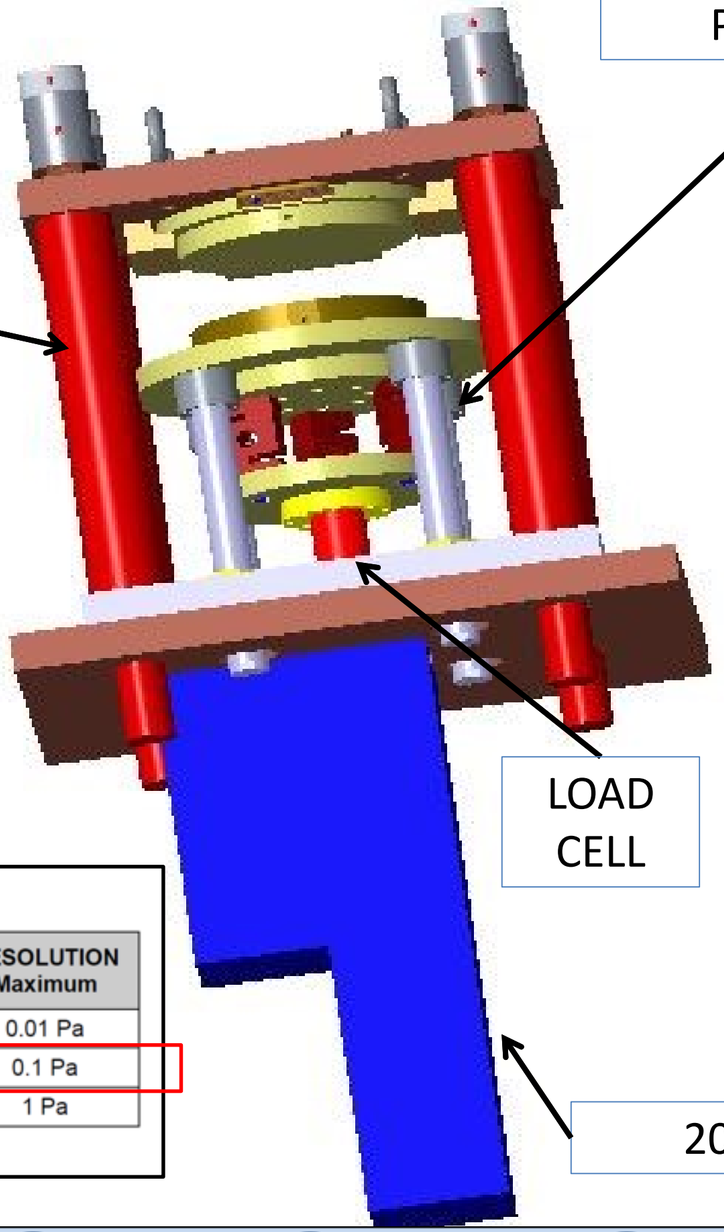


Engineering & Design



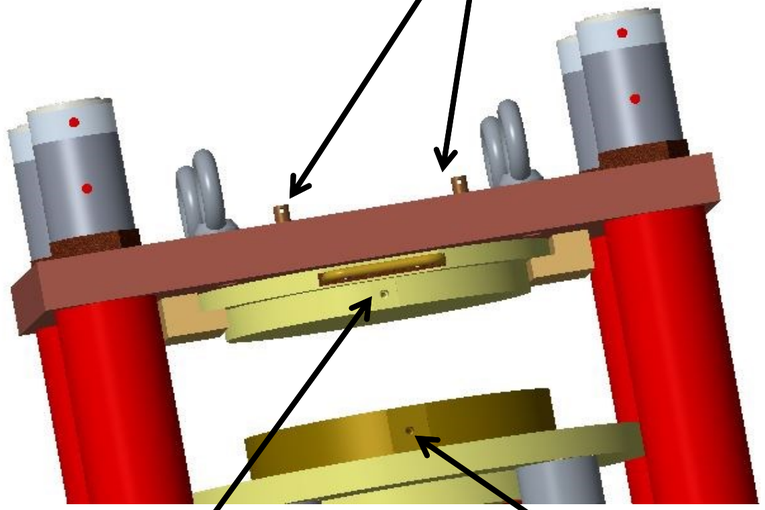
GUIDE ROD

PILLAR ROD



LOAD CELL

CASSET PIN



AIR IN

AIR OUT

20 TON HYDRO PNEUMATIC CYL

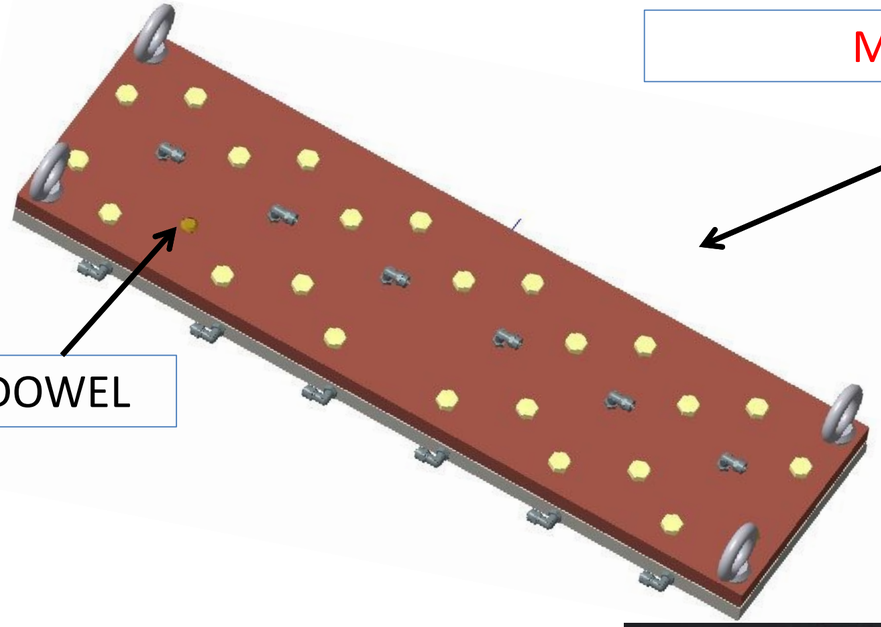
2.1. PRESSURE DROP MEASUREMENT

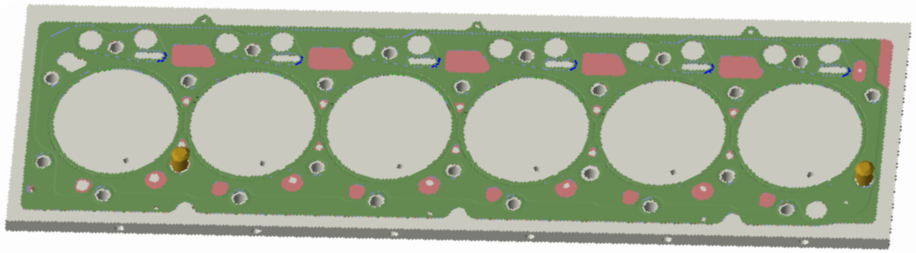
RANGE	STANDARD ACCURACY*	RESOLUTION Maximum
0 – 50 Pa	+/- (1.5% Reading + 0.5 Pa)	0.01 Pa
0 – 500 Pa	+/- (1% Reading + 1 Pa)	0.1 Pa
0 – 5000 Pa	+/- (1% Reading + 10 Pa)	1 Pa

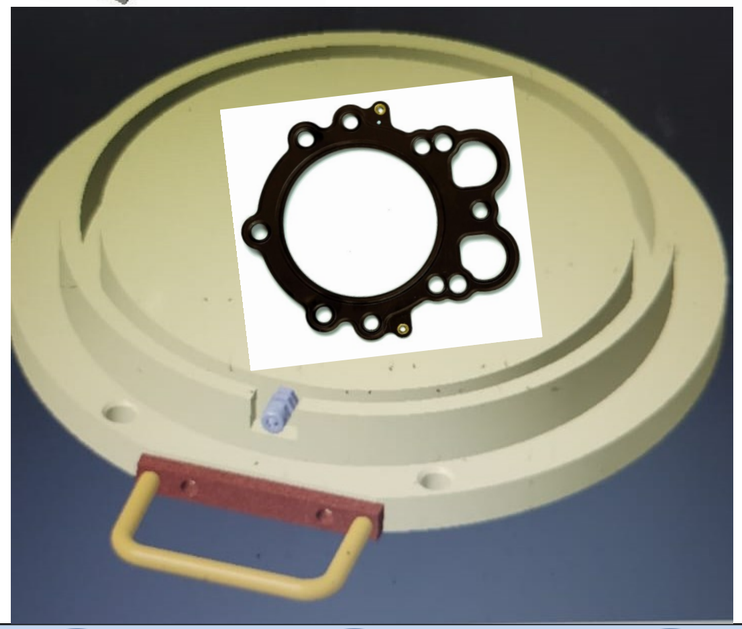
*Accuracy: Linearity + Repeatability + Hysteresis.

Engineering & Design

MANUAL FIXTURE ASSY







Setup for leak testing of single-bore MLS Gaskets and Secondary Gaskets

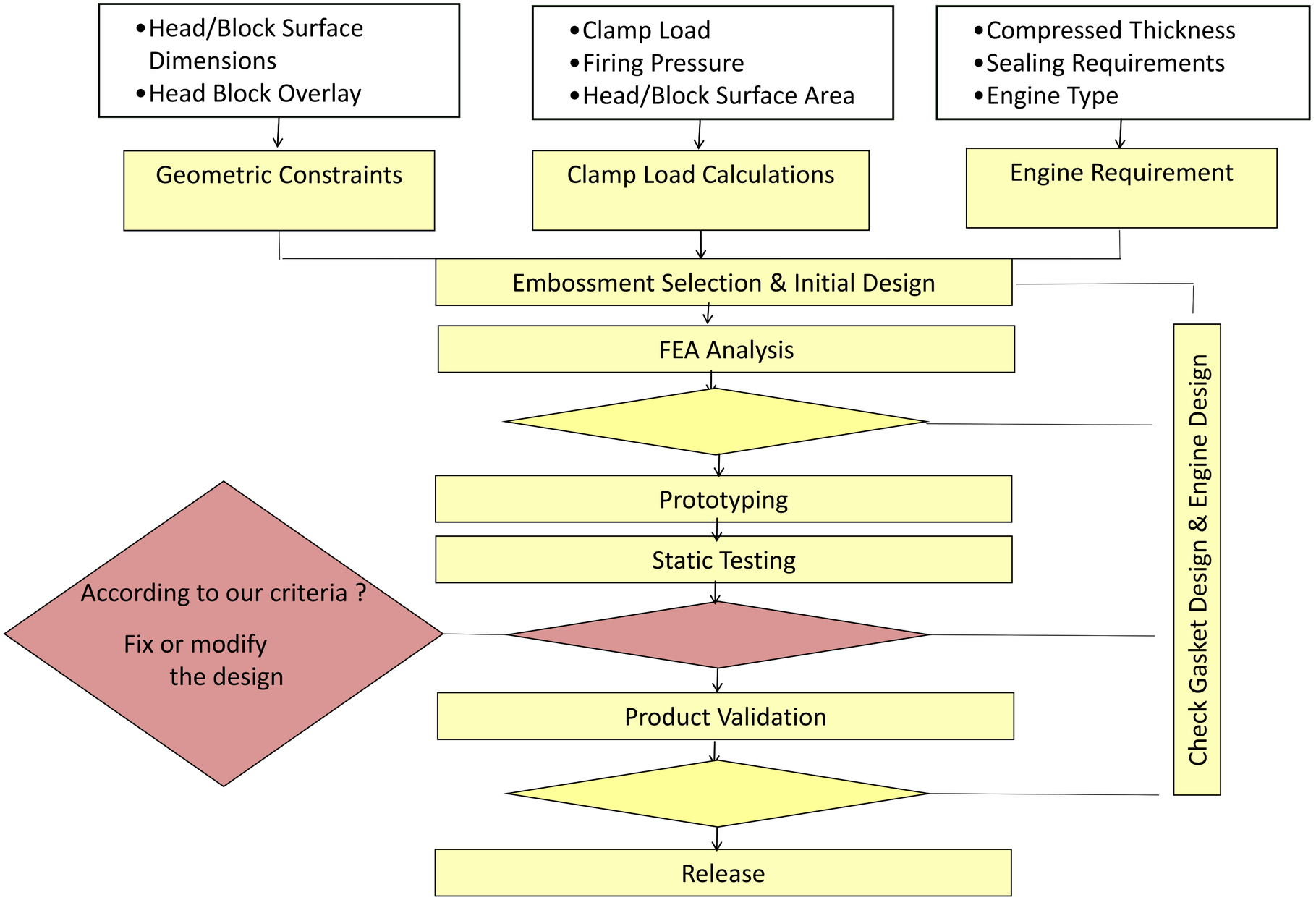
Engineering & Design

Static Testing:

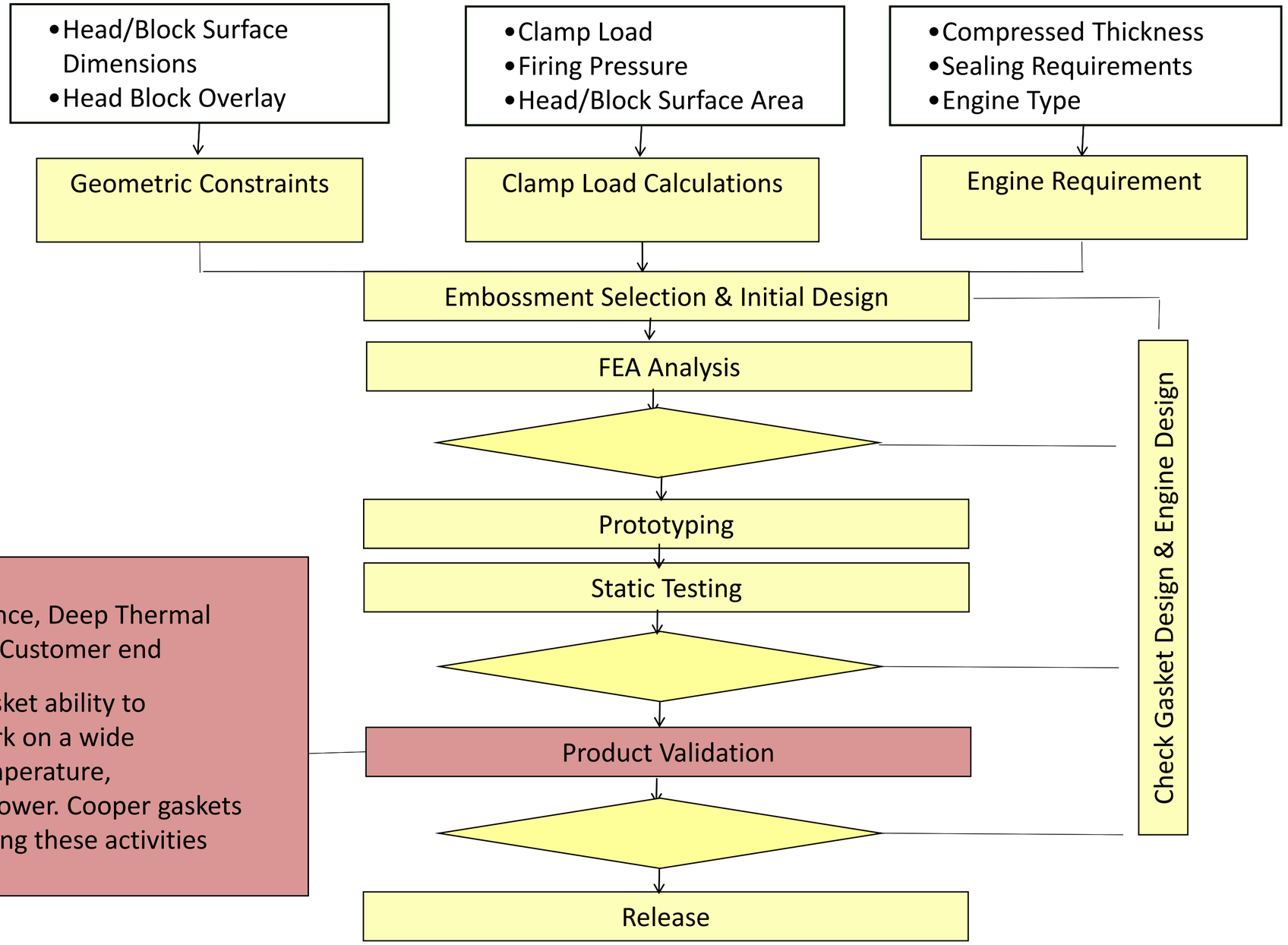
Compressed Thickness- Lead Pellet Test:

Lead shot Testing is being carried out at Customer End

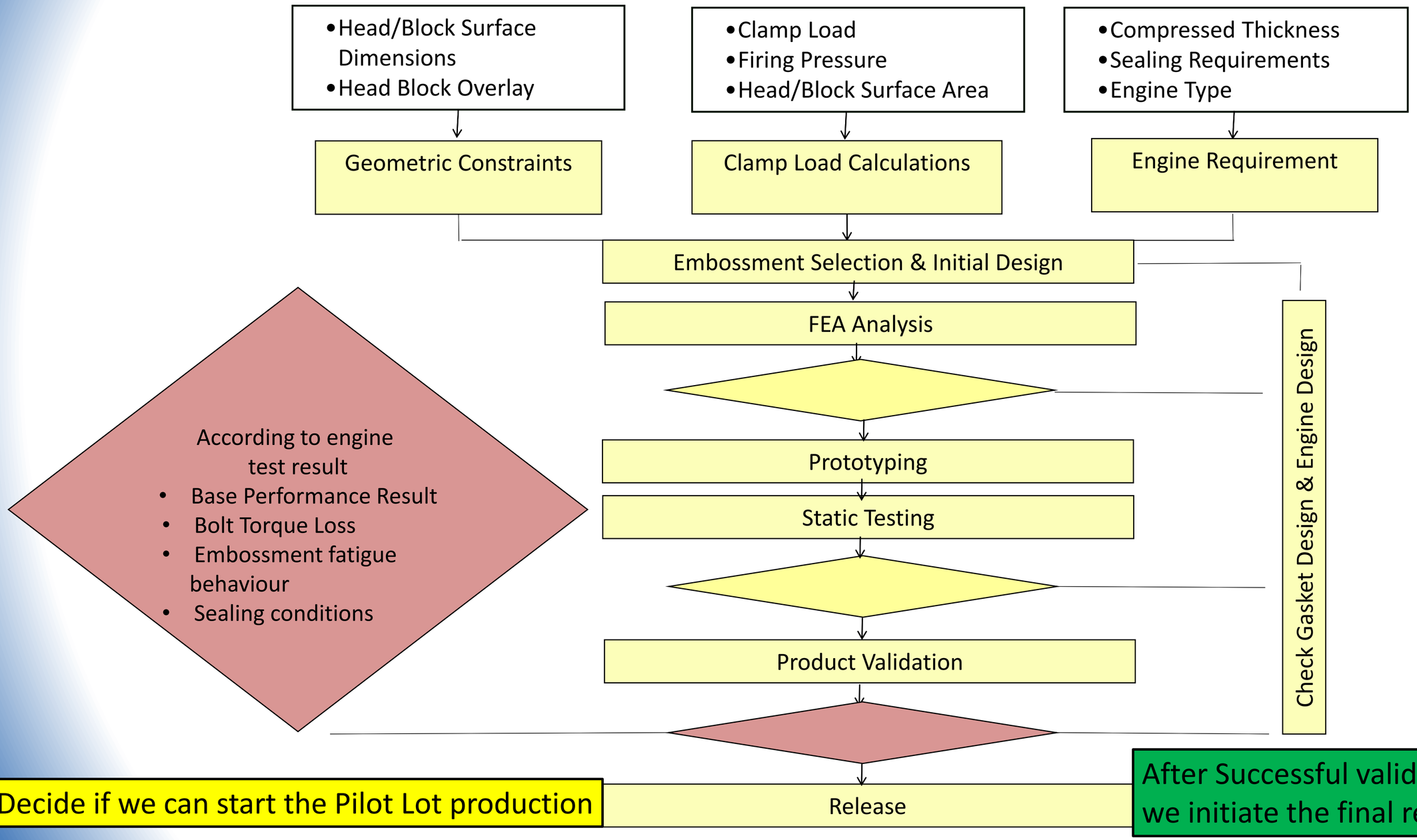
Engineering & Design



Engineering & Design



Engineering & Design



Decide if we can start the Pilot Lot production

After Successful validation of the Pilot Lot, we initiate the final release process

CASE STUDIES

Engineering & Design

Case Study – Cylinder Head Gasket

Inputs received from the Customer

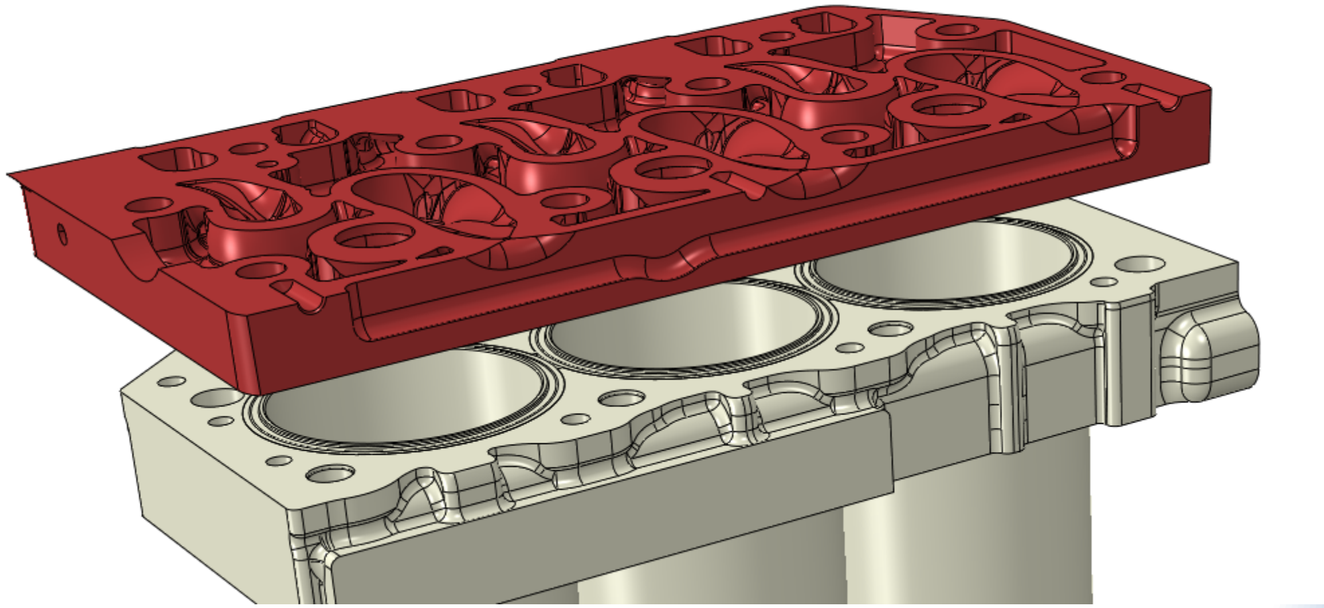
	Engine Model :	19 Kw	

Drawings Required :

1. Crank Case Top Surface	Done	Refer Attached Presentation
2. Engine Head Bottom Surface	Done	
3. Requirement drawing with the location and values of casting and machining tolerances		
4. Liner	Done	
5. Tightening Sequence	Done	
6. Cross Section showing Seating Arrangement of Liner on Crank case	Done	

Engine Type & Specification:

1	Combustion Type	Diesel	Diesel/Gasoline/CNG
2	Aspiration	Natural	Natural/Turbo/Supercharged
3	Ignition	Compression	Spark /Compression
4	Compression ratio	23:01	
5	Fuel injection type	IDI	Carb/Mpi/Spi/Di/IDI
6	Valve Train	Push Rod	Push Rod/SOHC/DOHC
7	Working principle	4 Stroke	2 stroke/4 stroke
8	Cylinder configuration	In-line	Inline/V type
9	Max. Torque	85 ±5%	Nm
10	Max. Power	19	Kw
11	Speed @ max power	2800	RPM
12	Speed @ max torque	1800 ± 200	RPM
13	Peak Combustion Pressure	88	Bar
14	Cubic Capacity	1.33 L	
15	No. of cylinders	3	
16	Cylinder Diameter	78	mm
17	Inter Cooled	No	Yes/No
18	Valves per cylinder	2	
19	Cooling Media	Water Cooled	Water based/oil/air
20	Maximum Coolant pressure	1.05 Bar	bar
21	Max oil pressure	4 Bar	bar
22	Max oil Temperature	128 Degree (Vehicle Level)	°C
22.1	Oil and Coolant Passages:	Refer 3D Data	locations and sizes of oil and coolant passages
22.2	Tolerances and Clearances		
23	Oil Grade	Country Specific as per temp Conditions	
24	Engine Mounting Locations	On Cylinder Block	Required Location snaps
	Compressed thickness of CHG.	(1.65 ±0.1 w/o Compressed) 1.55±0.05 Compressed	



Head and Block received from the Customer

Engineering & Design

Case Study

Gasket Design Calculations

Bore Dia (mm)	79.00
Margin considered for Gasket ID (mm)	1.00
Land (mm)	0.50
Embossment Width (mm)	3.00
Circ. of embos. Width around the bore if PCD not available	
P.C.D of embossment around the bore (Manual Entry)	85.90
Circ. of embos. Width around the bore	269.86
Area of Embossment	5795.30
Area of embos. around the bore	
Area of Bore	4901.67
No. of Bores	3.00
Total length carrying load around the bore	809.59
Bolt Torque (N-m)	114.00
Bolt Torque (N-mm)	114000.00
Bolt Dia (mm)	12.00
Coefficient of Friction	0.18
Number of Bolts	8.00
Bolt Load (N)	52,777.78
Bolt Load (KN)	**52.78**
Total Bolt Load (N)	4,22,222.22
Total Bolt Load (KN)	**422.22**
Line Load (N/mm)	521.53
Line Load (N/mm) on embossment	**110.82**
Peak Firing Pressure (Mpa)	8.80
Peak Firing Load (Upward Thrust) -N	43134.70
Peak Firing Load (Upward Thrust) -KN	43.13
Number of bolts at middle Bore	2.00
Clamp Load at middle Bore	105555.56
Cover Factor on Middle Bore	**2.45**
Total Clamp Load Available for Gasket	
Clamp Factor on total Gasket	**3.26**
Clamp Load for consideration (%)	85.00
Clamp Load with assumed consideration (N)	89722.22
Clamp Load with assumed consideration (KN)	**89.72**
Pressure on Body Mpa	332.47

Proposals Considered and discussed

Option 1

,@ Bore

Description	Thickness mm	Coating (microns) 1st Side	2nd side	Considered	
Top layer				0	
Fire Ring	0.9				0.9±0.05
Cullot	0.4			0	
Cullot opposite side	0.4				
Any other functional Layer				0	
Distance layer				0	
Bottom Layer				0	
Total	*1.7*			*0*	
Total Compress Thickness		1.7			

Description	Thickness mm	Embossment height-outer	Total stack height-outer	Coating (microns) 1st Side	2nd side	Considered	Thickness with coating	Thickness with considered coating
Top layer	0.25	0.28	0.53	25	25	25	0.58	0.555
Any other functional Layer	0	0	0	0	0	0	0	0
Distance layer	1		1	25	25	25	1.05	1.025
Bottom Layer	0.25	0.28	0.53	0	25	12.5	0.555	0.5425
Total	*1.5*	*0.56*	*2.06*			*62.5*	*2.185*	*2.1225*
Total Compress Thickness				1.5625				

Compressed	Mean	Min	Max
Requirement	1.55	1.5	1.6
Tolerance +	0.05		
Tolerance -	0.05		

W/O Compressed	Mean	Min	Max
Requirement	1.65	1.55	1.75
Tolerance +	0.1		
Tolerance -	0.1		

Compression in a fire ring 0.1375

,@ Bore

Description	Thickness mm	Coating (microns) 1st Side	2nd side	Considered
Functional layer No. 1	0.25	25	25	25
layer No. 2	0.5		25	12.5
Distance Layer	0.5			0
Functional layer No. 3	0.25	25	25	25
Total	*1.5*			*62.5*
Total Compress Thickness		1.5625		

Body

Description	Thickness mm	Embossment height-Bore	Total stack height-Bore	Embossment height-Outer	Total stack height-Outer	Coating (microns) 1st Side	2nd side	Considered	Thickness with coating at Bore	Thickness with considered
Functional layer No. 1	0.25	0.25	0.5	0.25	0.5	25	25	25	0.55	0.525
layer No. 2	0.5		0.5		0.5		25	12.5	0.525	0.5125
Distance Layer	0.5		0.5		0.5			0	0.5	0.5
Functional layer No. 3	0.25	0.25	0.5	0.25	0.5	25	25	25	0.55	0.525
Total	*1.5*	*0.5*	*2*	*0.5*	*2*			*62.5*	*2.125*	*2.0625*
Total Compress Thickness						1.5625				

Final

,@ Bore

Description	Thickness mm	Coating (microns) 1st Side	2nd side	Considered
Functional layer No. 1	0.25	25	25	25
layer No. 2	0.5		25	12.5
Distance Layer	0.5			0
Functional layer No. 3	0.25	25	25	25
Total	*1.5*			*62.5*
Total Compress Thickness		1.5625		

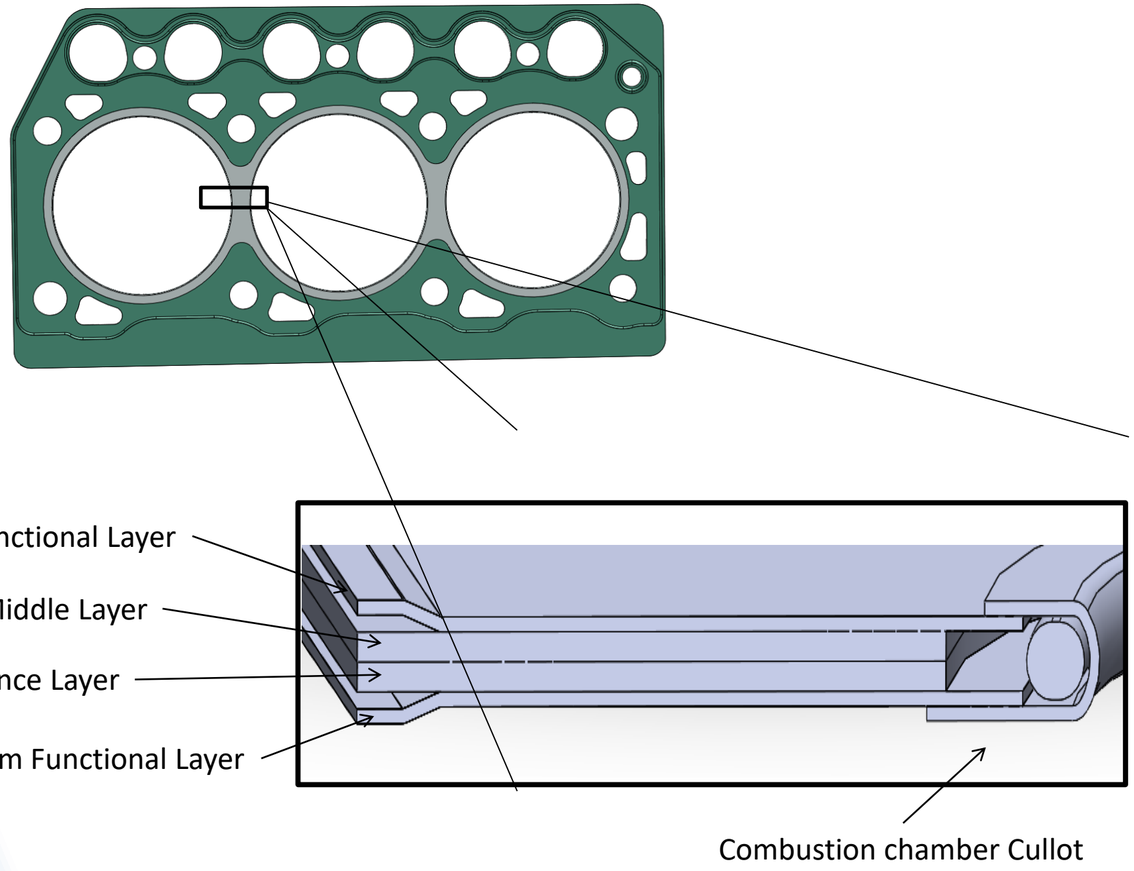
Body

Description	Thickness mm	Embossment height-Bore	Total stack height-Bore	Embossment height-Outer	Total stack height-Outer	Coating (microns) 1st Side	2nd side	Considered	Thickness with coating at Bore	Thickness with considered
Functional layer No. 1	0.25	0.25	0.5	0.25	0.5	25	25	25	0.55	0.525
layer No. 2	0.5		0.5		0.5		25	12.5	0.525	0.5125
Distance Layer	0.5		0.5		0.5			0	0.5	0.5
Functional layer No. 3	0.25	0.25	0.5	0.25	0.5	25	25	25	0.55	0.525
Total	*1.5*	*0.5*	*2*	*0.5*	*2*			*62.5*	*2.125*	*2.0625*
Total Compress Thickness						1.5625				

Engineering & Design

Case Study – Cylinder Head Gasket

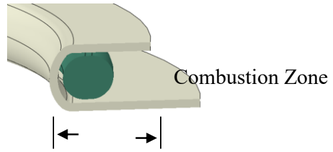
Gasket Construction :



Functional Layer :

- SS Material with AL Coating
- Combustion Sealing is performed by Fire Ring & Fluid Sealing by Full/Half Beads.
- Generally are in contact with Head & Block surface.

Cullot with Fire Ring:



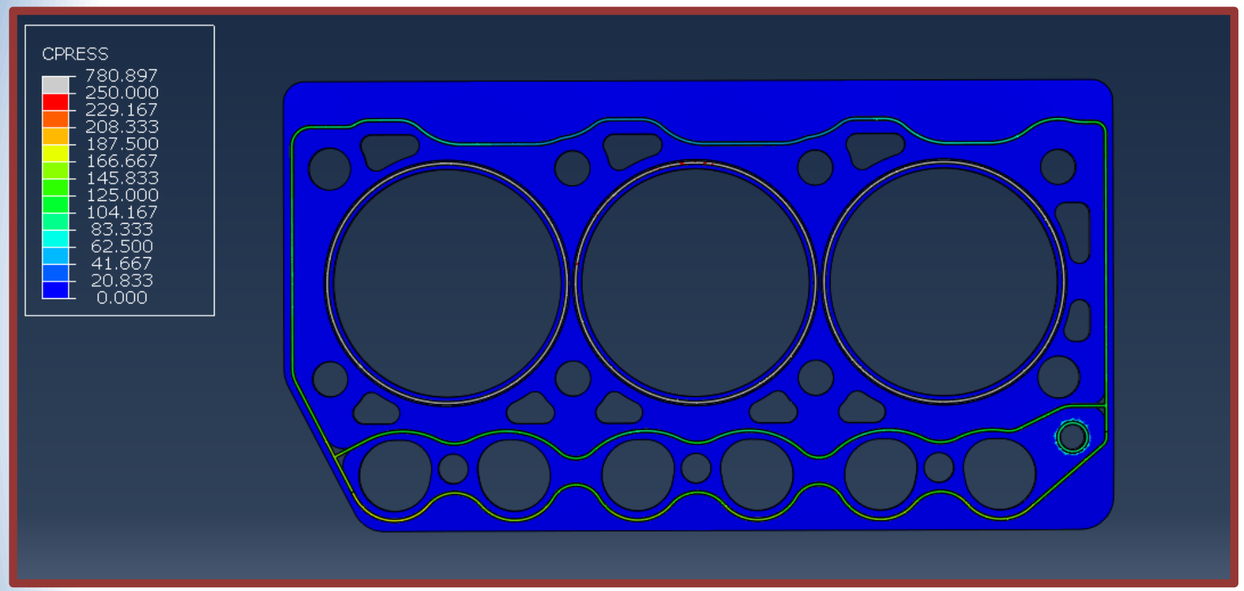
- Stainless Steel Material.
- First stage sealing element for combustion gases.

Distance Layer :

- Low Carbon Steel Material with or without Elastomer Coating.
- Used for adjusting the gasket thickness.

Engineering & Design

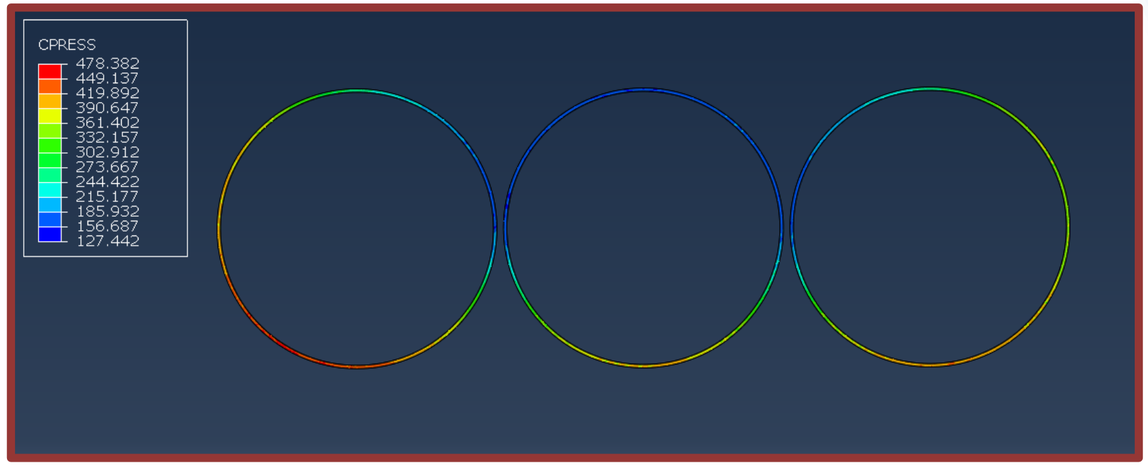
FEA- Design Verification



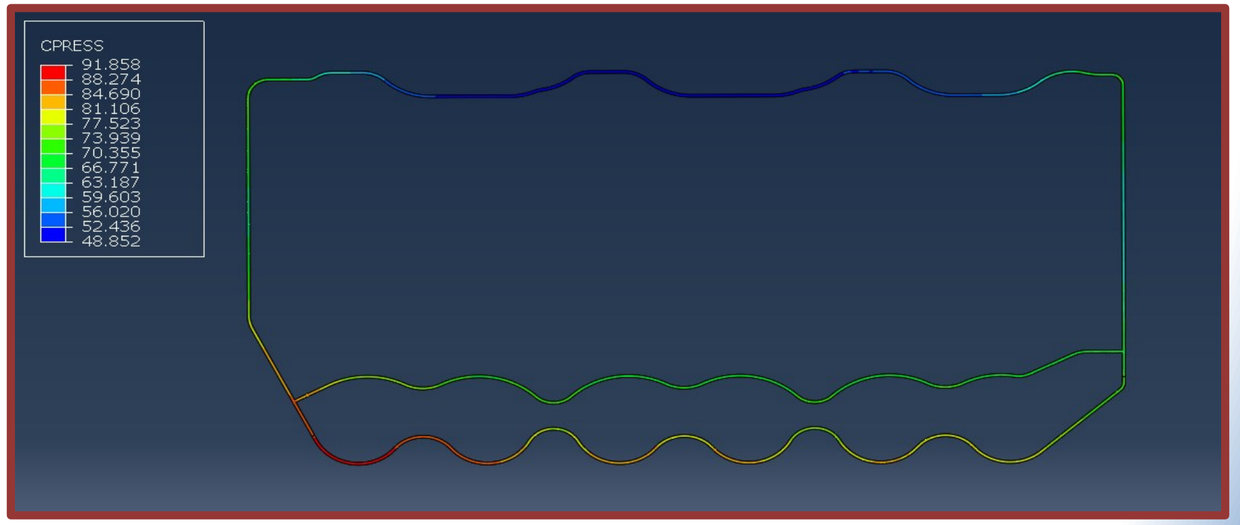
Video link

Video link

Contact Pressure on the Gasket



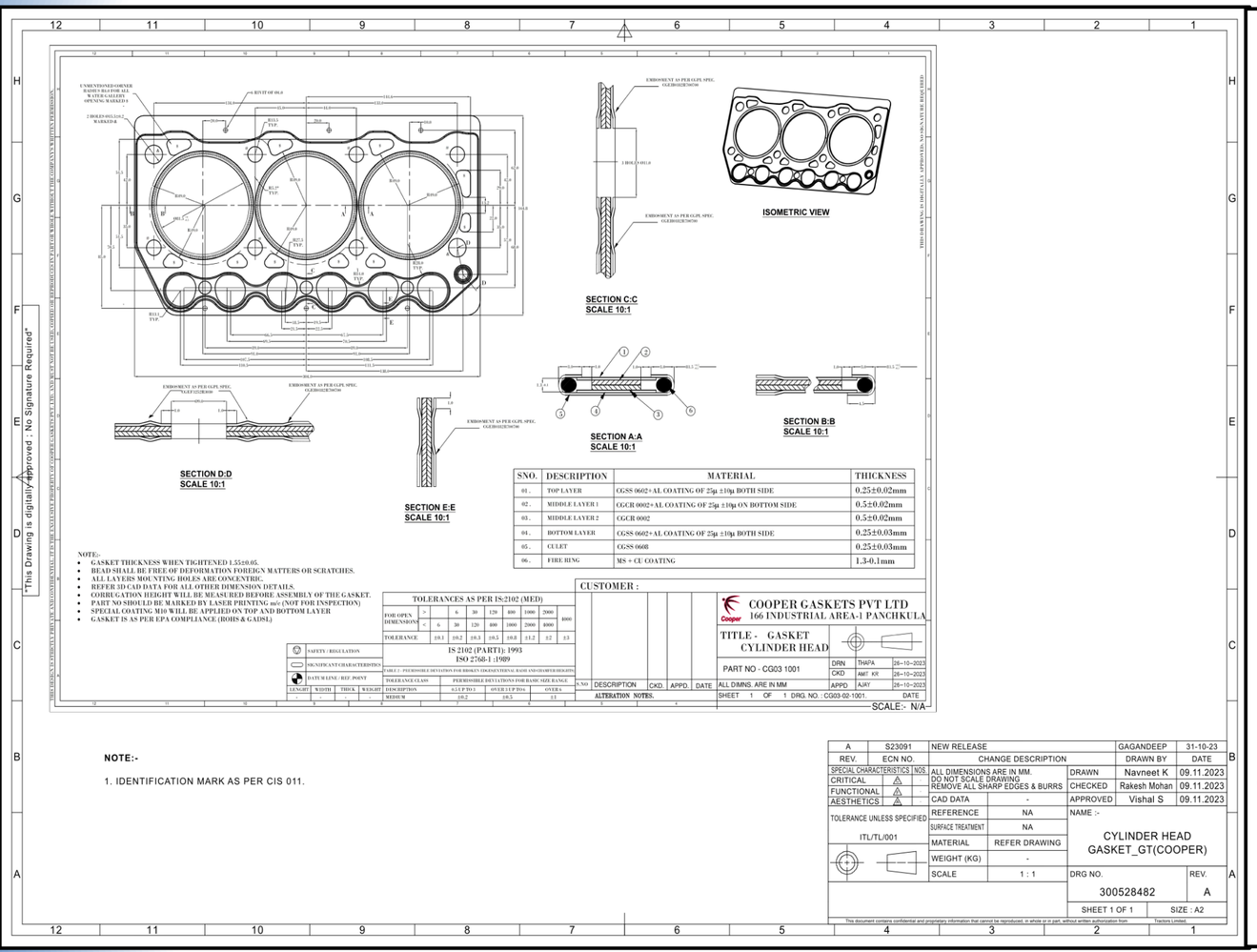
Contact Pressure on the Bore Embossment



Contact Pressure on the Outer Embossment

Acceptance Criteria: 44 MPa

Engineering & Design



Proto Samples were successfully validated at the customer end for

- Nitrogen sealability Test
- Endurance test of 450+ Hrs.
- Fuji Film Test
- Lead shot Test

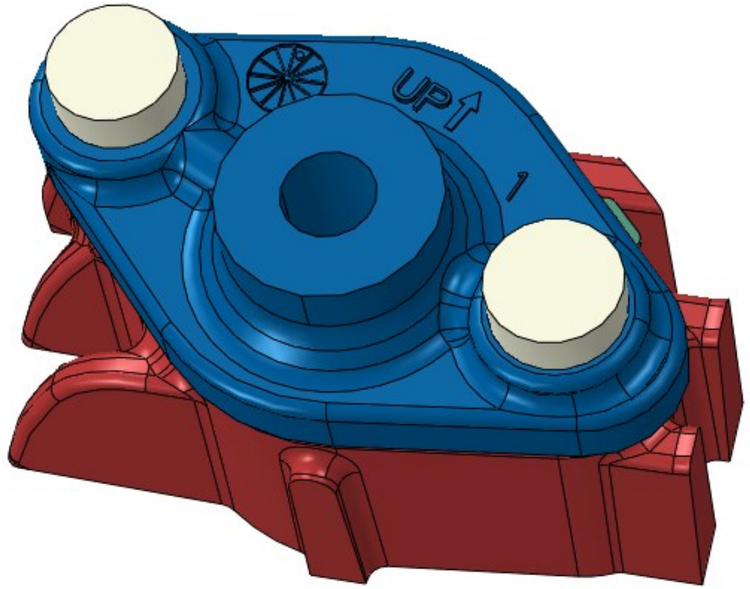
70 Engines are ready for export after the initial trials of the Engine at the customer end

Engineering & Design

Case Study – Secondary Gasket

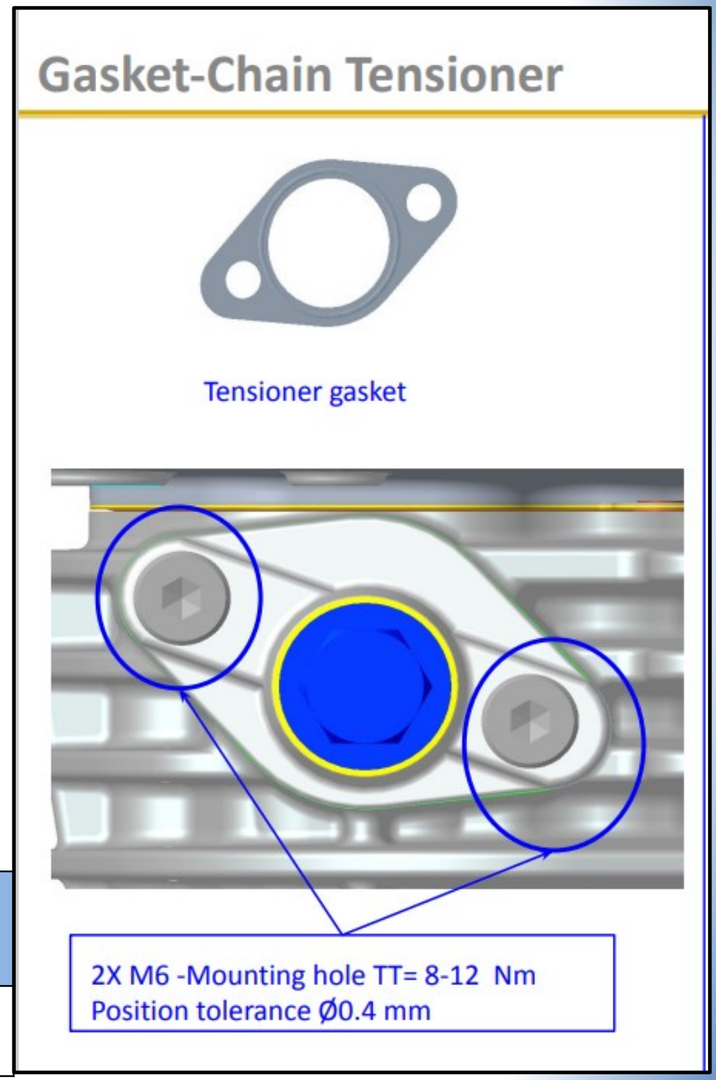
Inputs received from the Customer

Application Type & Specification:			
1	**Application**	**n Tensioner gasketPart No: 1570**	Exhaust Manifold / Intake Manifold / Turbocharger /.....
2	**Media**	Oil	**Water based/oil/air/gas**
3	**Maximum Media Temperature**	160 (Sump oil)	**°C**
4	**Maximum Media Pressure**	lot condition : 5 BarCold condition : 8 Ba	**bar**
5	**Compressed thickness of**	0.5	**mm**
Mating Part / Mating Flange Data - 1st			
6	**Part Name**	Tensioner Asssembly	
7	**Part Number/Unique ID numbe**	-	
8	**3D Solid CAD Model**	Refer attachment	**50mm cut section is required**
9	**a. Mating Part 1 Material**		**Al-alloy / cast iron**
	1. Material Standard	ADC12	
	2. Young's Modulus	76Gpa	**GPa/Mpa/N/mm2**
	3. Poisson's Ratio		
	4. Density	-	**Tonne/mm3**
10	**Casting Tolerance**	Refer attachment	
	Tolerances (min/max)	-	
11	**Machining Tolerance**	NA	
	Tolerances (min/max)	-	
12	**Maximum Deflection**	NA	
13	**Rz roughness**	Ra1.6	
	Rz roughness Tolerances (min/max)	-	
14	**Flatness**	0.05 - 0.1 mm	
	Flatness Tolerances (min/max)	-	
15	**Waviness**	-	
16	**Minimum Temperature on the**	-10	**°C**
17	**Maximum Temperature on the**	170	**°C**
Mating Part / Mating Flange Data - 2nd			
18	**Part Name**	Clyinder barrel	
19	**Part Number/Unique ID numbe**		
20	**3D Solid CAD Model**	Refer attachment	**.stp file format - At least 50mm cut section is**
21	**a. Mating Part 1 Material**	Clyinder barrel	**Al-alloy / cast iron**
	1. Material Standard	ADC12	
	2. Young's Modulus	76Gpa	**GPa/Mpa/N/mm2**
	3. Poisson's Ratio		
	4. Density	-	**Tonne/mm3**
22	**Casting Tolerance**		
	Tolerances (min/max)	-	
23	**Machining Tolerance**	NA	
	Tolerances (min/max)	-	
24	**Maximum Deflection**	NA	
25	**Rz roughness**	Ra1.6	
	Rz roughness Tolerances (min/max)	-	
26	**Flatness**	0.05 - 0.1 mm	
	Flatness Tolerances (min/max)	-	
27	**Waviness**	-	



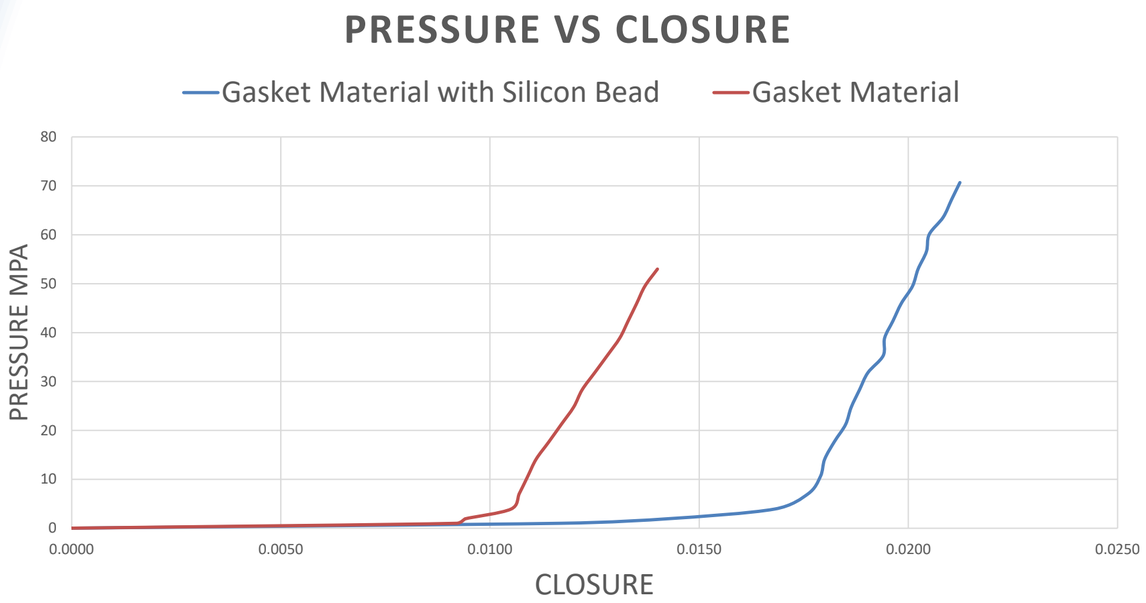
Mating Part assembly received from the Customer

Description	Material	Core Thickness	Coating
Gasket	CG-1064 (Paper Gasket)	0.5 mm	Silicon Beading on Both side

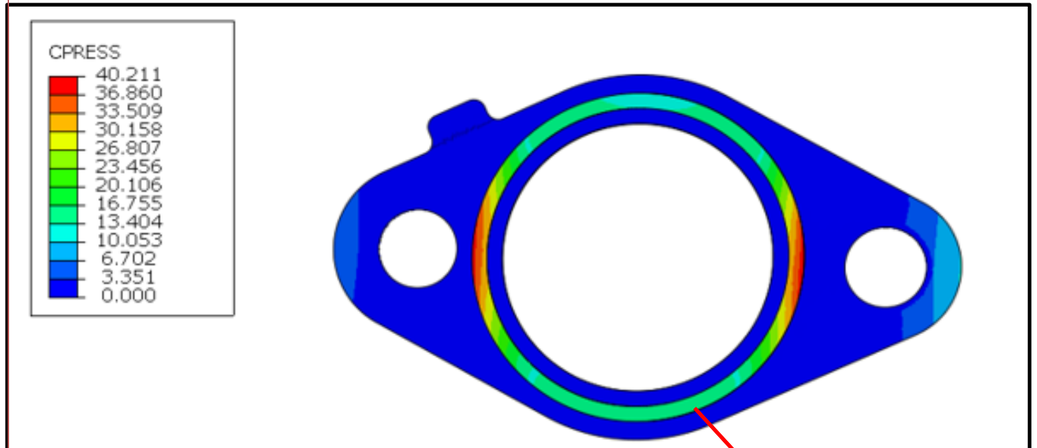


Engineering & Design

Case Study-2



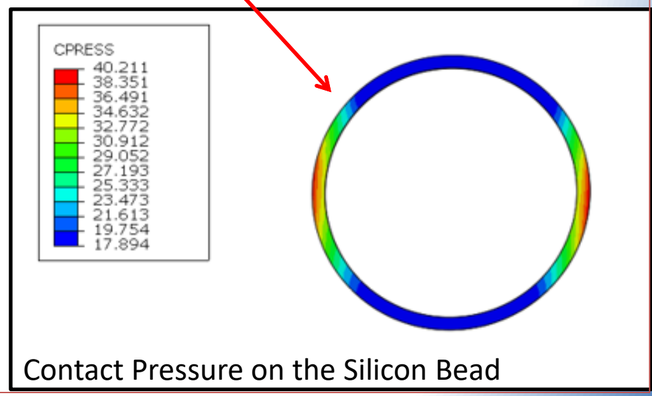
Pressure Closure data used for the analysis is extracted from the Load Deflection Data of the actual material that we have used for the gasket. By this, we are able to simulate the Paper gaskets of all kind of applications



Contact Pressure on the Complete Gasket

[Video link]

The minimum contact pressure observed on the gasket silicon bead is 17.8 Mpa which confirms that the gasket will be able to provide the sealing during its operations.



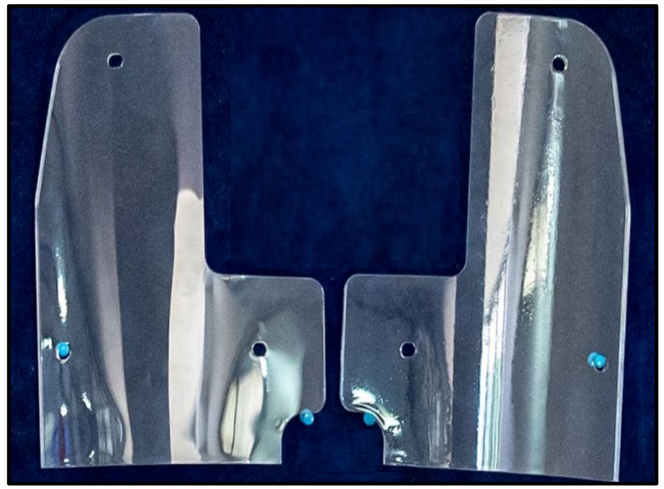
Contact Pressure on the Silicon Bead

Engineering & Design

Case Study - Heat Shield

Acrylic - Heat Shield Analysis

Acrylic - Heat Shield Analysis



Description	Material	Core Thickness
Heat Shield	Acrylic Sheet	4 mm

Design Guidelines for Heat Shield

Request received from the customer

Complete Heat shield 3D model with desired THK combination

Yes

Customer design has to be followed

Vibration Analysis

Design Proposal

No

Input data required from customer with SOR

1. 3D Model
2. Define material properties of proposed material
3. Apply boundary condition on fixing location (with MB/ without MB)
4. Eigen value extraction for first 3 modes-solver definition
5. Mesh the part and apply forced frequency with given G loan at given

Output

1. Check the Eigen mode results for MODE
2. Compare with the acceptance criteria
3. Check the maximum stress and displacement
4. Compare the results with SN curve data and the stress value should be less than the specified value

Yes

Output results are meeting the acceptance criteria

No

Propose design change

Meeting Acceptance Criteria

Yes

Final design submit for customer

No

Customer approval received

Yes

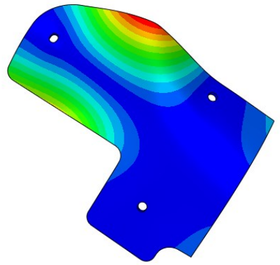
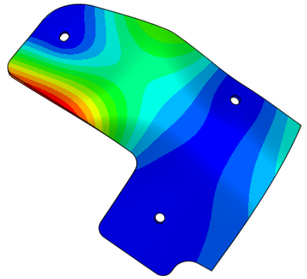
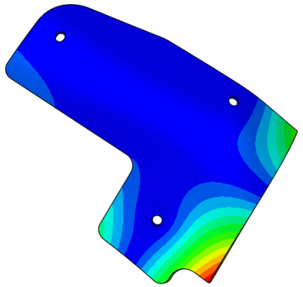
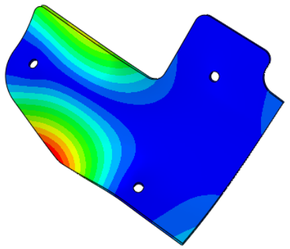
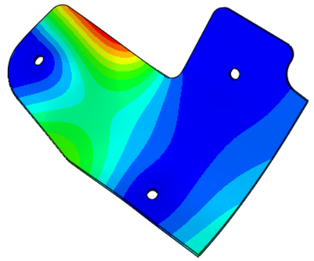
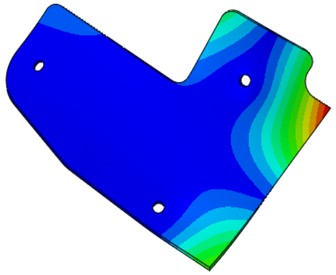
Further development activity to be start

Yes

Make the report and share with customer

Engineering & Design

Case Study - Heat Shield

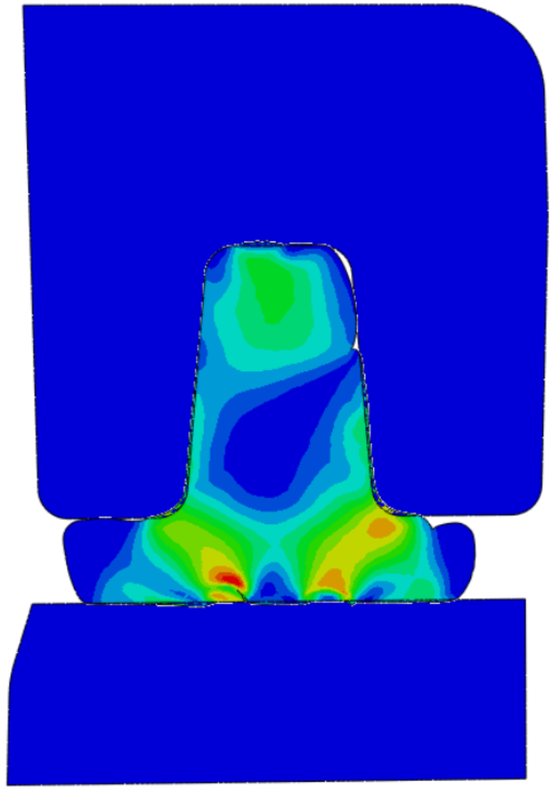
Eigen Value Extraction Analysis for Acrylic Heat Shield			
Mode	1	2	3
Frequency	296 Hz	357 Hz	393 Hz
Image			
			

Meets Acceptance Criteria > 199 Hz

This Heat Shield is in production

Engineering & Design

Case Study – Rubber Gaskets



Video link

CAM Seal Cover Gasket with Metal Insert

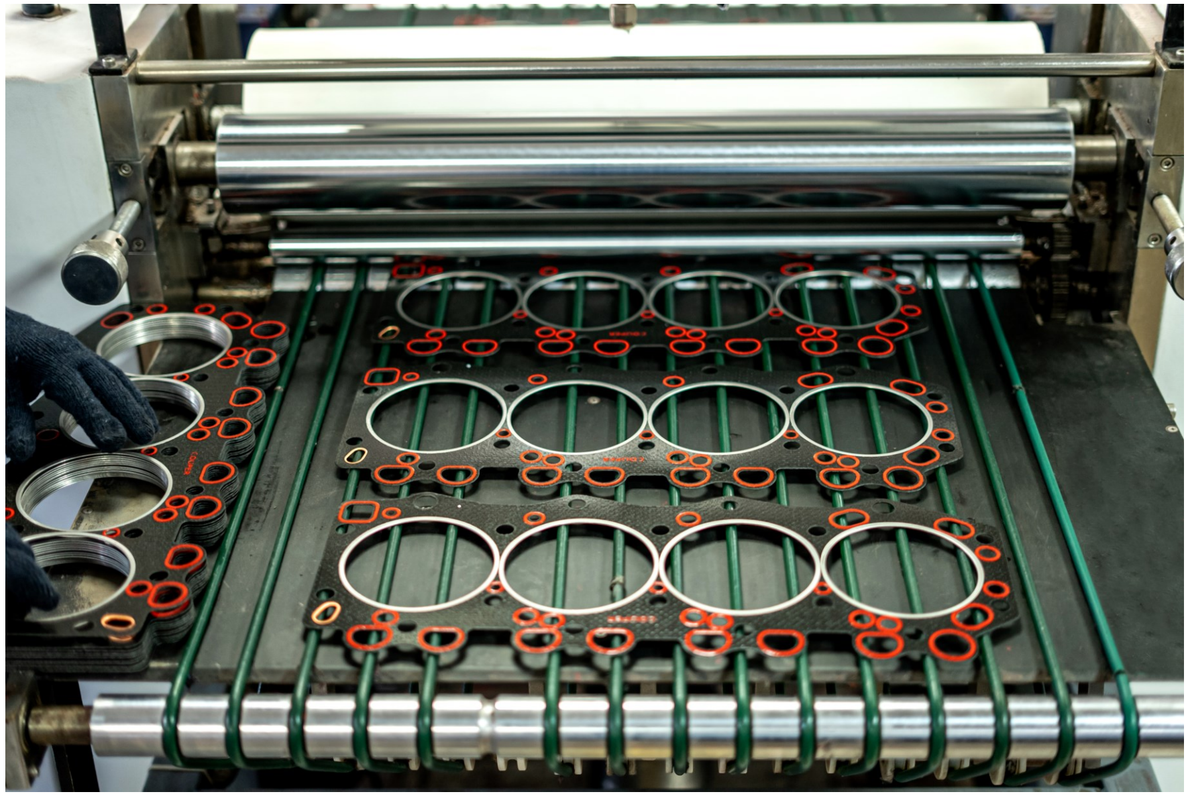
Gasket Oil Pan

Manufacturing Facility

Manufacturing Facility

Surface Treatment

- Dust free and human touch free automated coating line



Video link

Manufacturing Facility

Press Shop

- Mechanical & Hydraulic Presses with 10 to 400 Ton capacity

Swing Arm Press

Travel Head cutting press

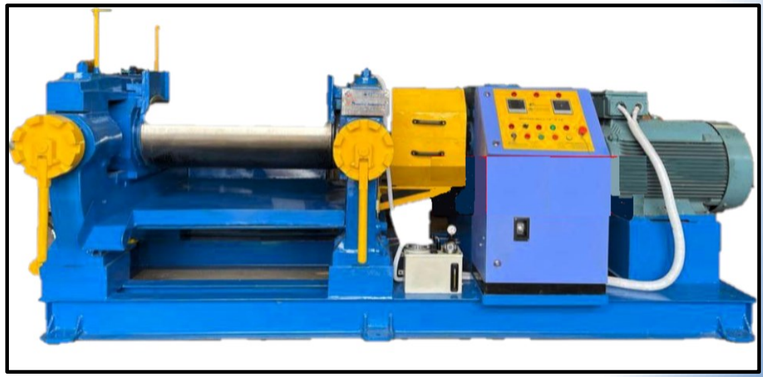
Manufacturing Facility

Rubber Moulding

Tung Yu 250 Ton Double Station 3RT Vacuum compression moulding machine

Video link

35 Ltrs. Kneader Machine



14” X 36” Mixing Mill

Manufacturing Facility

Copper Annealing

- Automated Annealing Plant with Inert Atmosphere to prevent oxidation and maintaining Hardness level 35 to 40 HV.

Manufacturing Facility

Co2 Laser Cutting Machine – 150 KW

- Automatic Laser cutting machine for Soft gasket cutting with high accuracy and precision

Manufacturing Facility

Manufacturing Excellence: Graphite Exhaust Seal Ring Production

- Implementation of Cutting-Edge Manufacturing Processes
- Adherence to Global Standards for Superior Quality
- Integration of Graphite and Stainless Steel Wire Mesh Construction
- Specialized Production Setup to Seal Flexible Joints with Precision

Manufacturing Facility

Tool Room

- In-house tool design facility integrated with product design to minimize error

- Sodick CNC Wire cut EDM machine with a bed size of 400 X 600 mm

- Supporting Tool Room machines
  - CNC milling
  - Surface Grinder
  - Lathe
  - Shaper In-house

Video link

Quality Assurance

Test Lab

Fully equipped lab for testing and development of raw materials

- Compressibility and Recovery testing
- Low-temperature chamber up to -40°C
- High-temperature ovens up to 600°C
- Vickers Hardness
- Tensile Strength
- Erichsen Cupping Value

Quality Assurance

Mahr “MarSurf” Contour Tracer for
MLS Embossment verifications

Quality Assurance

Rubber Testing

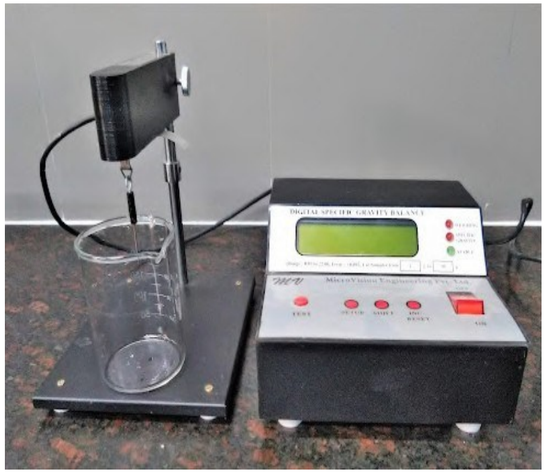
Cooper has a separate lab facility exclusively for rubber and polymer testing from the rubber mixing stage to the final product

- Moving Die Rheometer
- UTM Machine specially for Rubber
- Heat Aging Oven
- Muffle Furnace

Quality Assurance

Rubber Testing

- Computerized Carbon Dispersion Analyzer
- Digital Specific Gravity Testing Machine
- Digital Shore ‘A’ Hardness Tester
- Melting Point Apparatus
- Compression Set



TECHNOLOGICAL UPGRADATIONS IN THE LAST 3 YEARS

R&D Centre	
Design	Setting up of R&D center with a team skilled in CAD, virtual simulations (CAE),NPD
	Solid works Premium license
	Abaqus
R&D Lab	Load vs Deflection Machine
	Leak Testing Machine
	Thermal Mapping Machine
	Nitrogen Sealability Testing Machine
	Rubber Mixing Lab Mill – Modern

Tool Room	
Tool Manufacturing	Sodick Wire cut machine - Japan
Tool Design	Integration of Tool design with Product Design

TECHNOLOGICAL UPGRADATIONS IN THE LAST 3 YEARS

Manufacturing	
Rubber	Tung Yu 250 Ton Double Station 3RT Vacuum compression moulding machine
	35 Ltrs. Kneader Machine
	14” X 36” Mixing Mill
SPM	Laser cutting machine CO2 for soft gaskets
Coating	Automated coating line
	HTRC Spray Paint Facility
MLS line	Hydraulic Press for MLS embossments
Secondary	Automatic Perforation machine
	Automated Power press line with feeder and decoiler
	Swing Arm Press
	Travel Head Press
	Graphite Exhaust Seal Ring Line

Quality	
Rubber Testing Lab	Setting up of Rubber test Lab- Rheometer, UTM, etc.
Measurements	Contour Tracer Machine Mahr- Germany

Projected Investments

Projected investments in 2024-2025 for capacity enhancement and tool room capability :

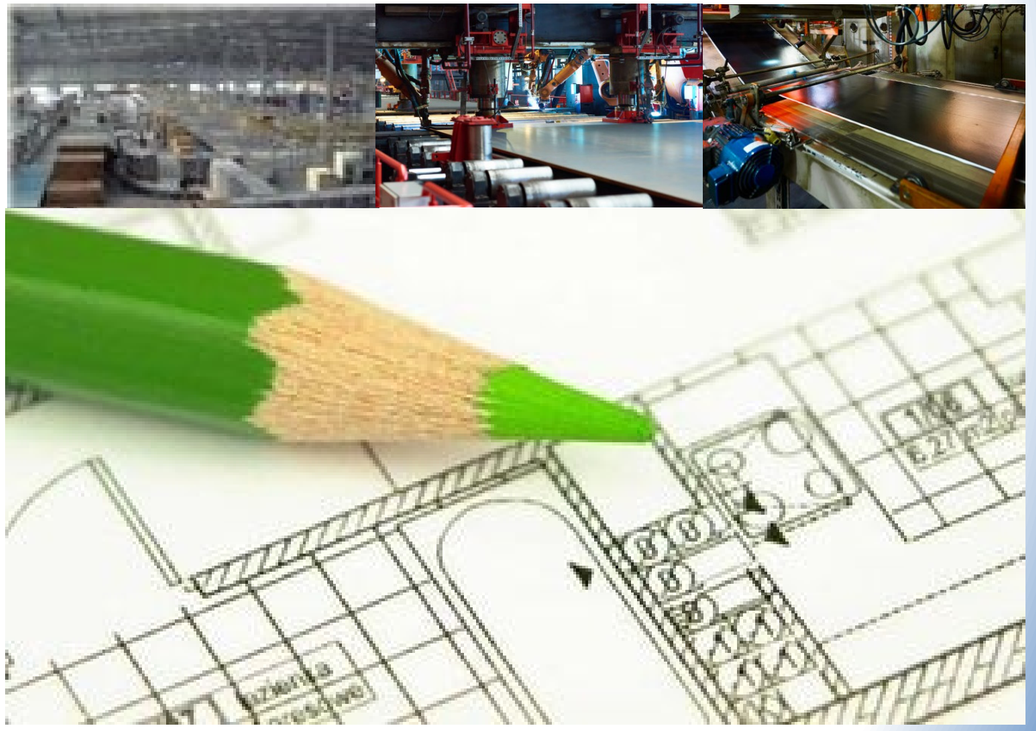
- MLS line
- Rubber Injection Molding and compression molding machine
- VMC and Wire cut machine in the Tool Room
- CNC Travel Head Press
- Automated Rubber Batch Mixing

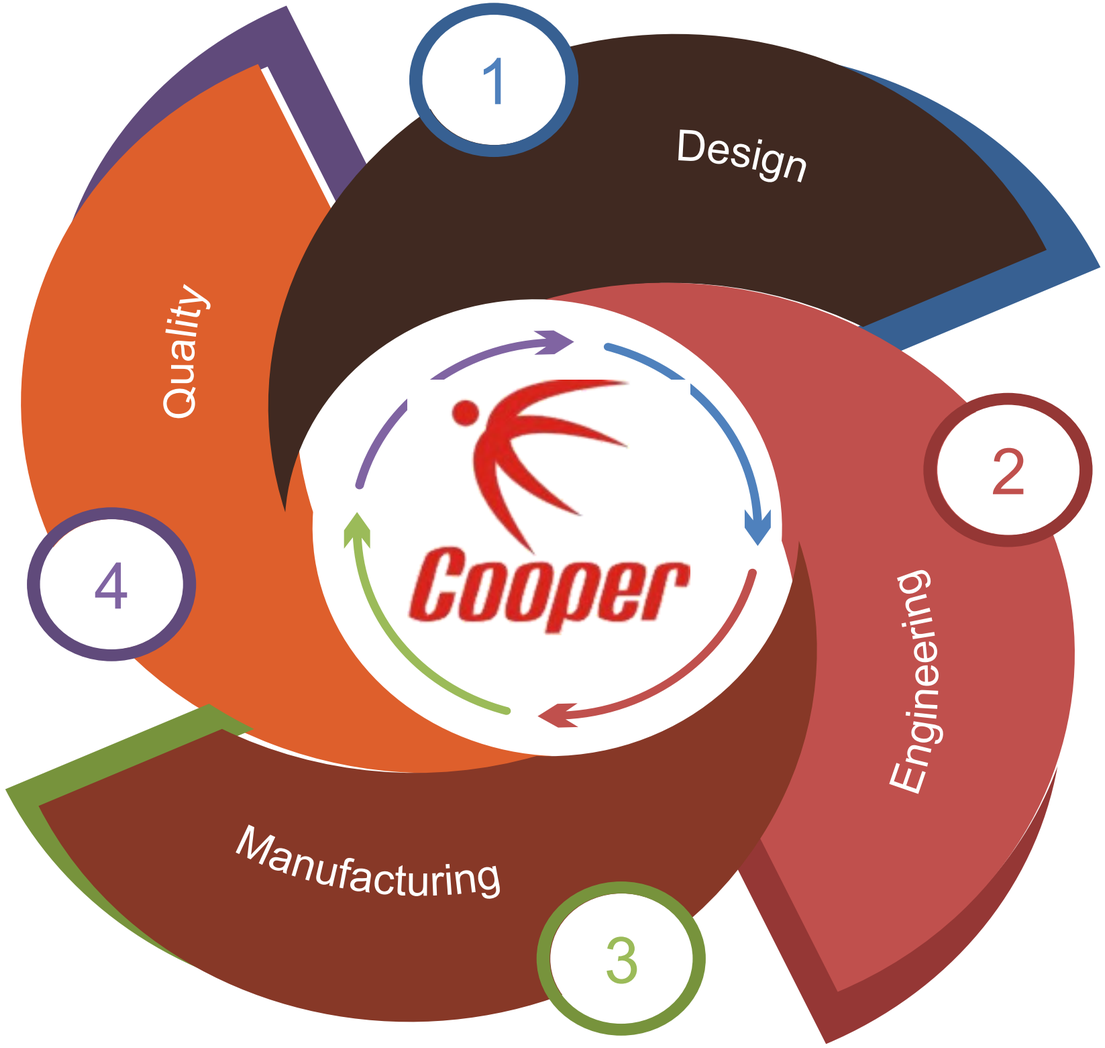
NEW PLANT

LOCATION: VILLAGE JASHPUR, Haryana (13 KM FROM MAHINDRA, HANDESRA PLANT)

PRODUCT RANGE: GASKETS AND HEAT SHIELDS

START OF PRODUCTION: SECOND HALF OF 2025




1
Design
2
Engineering
3
Manufacturing
4
Quality
Cooper

IATF 16949 : 2016


CERTIFICATE

This is to certify that

Cooper Gaskets Private Limited
Plot No 166, Industrial Area
Phase -1, Panchkula - 134109
Haryana
INDIA

has implemented and maintains a **Quality Management System**.

Scope:
Manufacture of Metallic, Non Metallic, Rubber, Soft Material Gaskets, composite Material Gaskets, Washers, Shims, Felt Items & Sheet Metal Components.

An audit, conducted and documented in a report, has verified that this quality management system fulfills the requirements of the following International Automotive Standard:

IATF 16949:2016
(without product design)

Certificate registration no.	50257185 IATF16
Issuing date	2022-08-12
This certificate is valid until	2025-08-11
IATF No.	0455709

2-IAO-QMC-01001

For and on behalf of DQS


सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय
MINISTRY OF
MICRO, SMALL &
MEDIUM ENTERPRISES

CERTIFICATE

ZED GOLD

under MSME Sustainable (ZED) Certification Scheme
awarded to

M/S COOPER GASKETS PRIVATE LIMITED
ENTERPRISE NAME

Flat No:- PLOT NO 166, Building:- M/S COOPER GASKETS PRIVATE LIMITED, Road/Street:- INDUSTRIAL ESTATE, Village/Town:- INDUSTRIAL ESTATE, Block:- PHASE-1, City:- PANCHKULA, PANCHKULA, HARYANA-134113
UNIT ADDRESS

29-Manufacture of motor vehicles, trailers and semi-trailers
CODE (AS PER NIC-2008)

UDYAM-HR-13-0000215
UDYAM REGISTRATION NUMBER

KBS Certifications Services Limited
ASSESSMENT AGENCY

Issued on :
March 24, 2024

Certificate Validity :
Three years from the date of issue

Certificate No. 24032024_083271

This Certificate has been awarded after fulfilling all relevant requirements as laid down in the MSME Sustainable (ZED) Certification Scheme Guidelines for this Certification Level.
Award of this Certificate does not substitute any legal requirement needed for setting up or operating an MSME Unit.


CERTIFICATE

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Phase -1, Panchkula - 134109
Haryana
INDIA

has implemented and maintains a **Quality Management System**.

Scope:
Manufacture of Metallic, Non Metallic, Rubber, Soft Material Gaskets, composite Material Gaskets, Washers, Shims, Felt Items & Sheet Metal Components.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 9001 : 2015

Certificate registration no.	50257185 QM15
Date of certification	2022-08-12
Valid until	2025-08-11

DQS Inc.

Managing Director

ISO 9001 : 2015

AWARDS

Best SCM Performance

Quality Award

Quality Performance

New Product Development 2018

Quality Performance

Supply Excellence 2017

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Elevating Partnerships: Your Gasket Solution

Trusted Gasket Partner Since 1979

Key Highlights

A Legacy of Excellence

•Proud suppliers to esteemed entities like SML ISUZU, Mahindra and Mahindra, International Tractors, Royal Enfield Motors, SAME Deutz, TAFE Motors and Tractors Ltd, etc. We will be by your side, with our commitment and reliability as your gasket partner.

Why You Should Consider Us?

•**Quality Products:** Renowned for its production of high-quality gaskets meeting industry standards, Cooper has achieved this through strategic investments in tool room, rubber molding, and MLS line technologies.

•**Reliability and Reputation:** Consistent and reliable service for over 34 years.

•**Cost-Effectiveness:** Cooper Gasket ensures that it aligns with your target prices.

•**Technology Partner:** Over the past three years, Cooper has made significant investments in establishing an R&D center equipped with highly skilled personnel for virtual validation, alongside an advanced R&D laboratory outfitted with cutting-edge equipment meeting world-class standards.

Let's Build Together

We are not just a supplier; we are your local ally in success.

We Thank You for supporting us and understand the value of your time. Further, we sincerely welcome you to discuss any inquiries that you have.

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+91 9910604280

THANK YOU

Contact us today for a partnership that stands the test of time.