

**AuVitronics Limited.....**People for polymers.



### **AuVitronics Limited**

- AuVitronics was established in 1983 as an Audio & Video Cassette manufacturing facility. Cognizant of the fact that cassette is dying business, Strategic decision to diversify into auto parts was made in year 2000. In 2010 cassette manufacturing business was fully closed.
- Another strategic decision was made in the year 2013 to further diversify into packaging business catering Pharma & FMCG sectors.
- AVT has over 900 employees and take pride on providing significant employment to female which is around one third of the work force.
- Our corporate motto is customer trust, based on prompt service and consistent high quality.



- 5 acres of land
- Covered area is 200,000 sq./feet

#### **Manufacturing Plant 02 : Port Qasim**



- 25 acres of land
- 150,000 sq feet of covered area.

#### AVT, a HUB of Technologies spinning around injection molding

- Injection Molding
- Injection Blow Molding
- PET pre form molding
- Stretch Blow Molding
- Clean room Molding.
- Spray Coating.
- Short wave infra red baking
- Hydrographic Printing.
- Integral skin PU foaming
- Expanded Poly Propylene
- Vacuum Metalizing

- Vibration Welding
- Hot plate welding
- Hot melt joining
- Ultrasonic Welding
- Precession Assembling
- Climatic Testing
- Vibration testing
- Continuous clean room particle counting
- Bio burden counting

**Auto** 

**Building Materials** 

**Packaging** 

#### Toyota-Corolla



Toyota-IMV



Land Rover- Defender



Honda-Civic



Honda-City



Hyundai-Shehzore



Suzuki-Swift



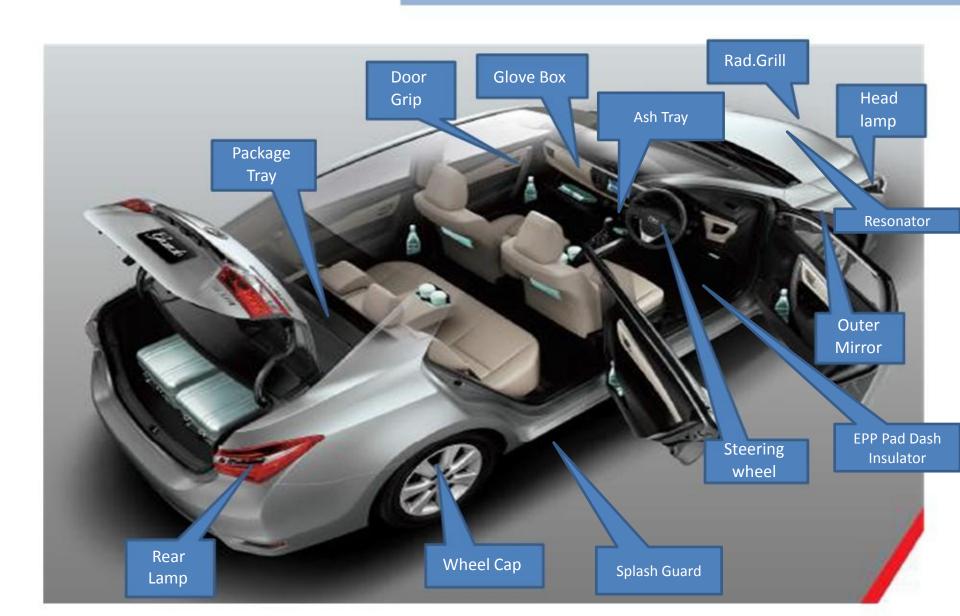
Suzuki-WagonR



Suzuki-Celerio



#### **Products: Automotive**



## Range of Products - LAMPS





# Range of Products - MIRROR



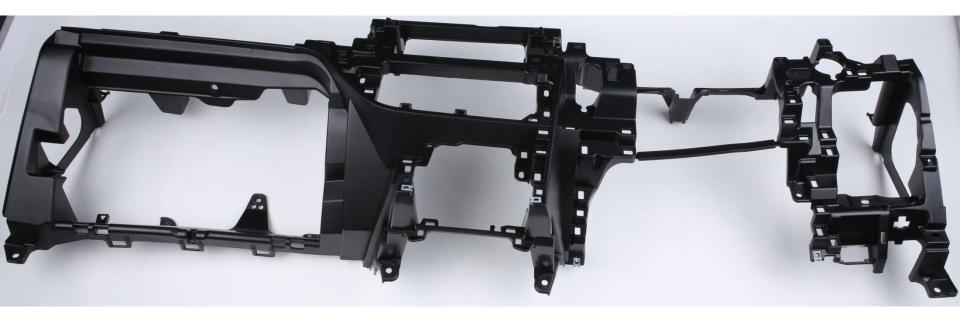
## Range of Products – STEERING WHEEL



## Range of Products - CUBIC PRINTING





















# Range of Products – ENGINE COMPARTMENT



# Range of Products - ENGINE COMPARTMENT



# Range of Products - HVAC



# Range of Products - HVAC



## Range of Products - HVAC



## Range of Products – VACUUM METALIZING

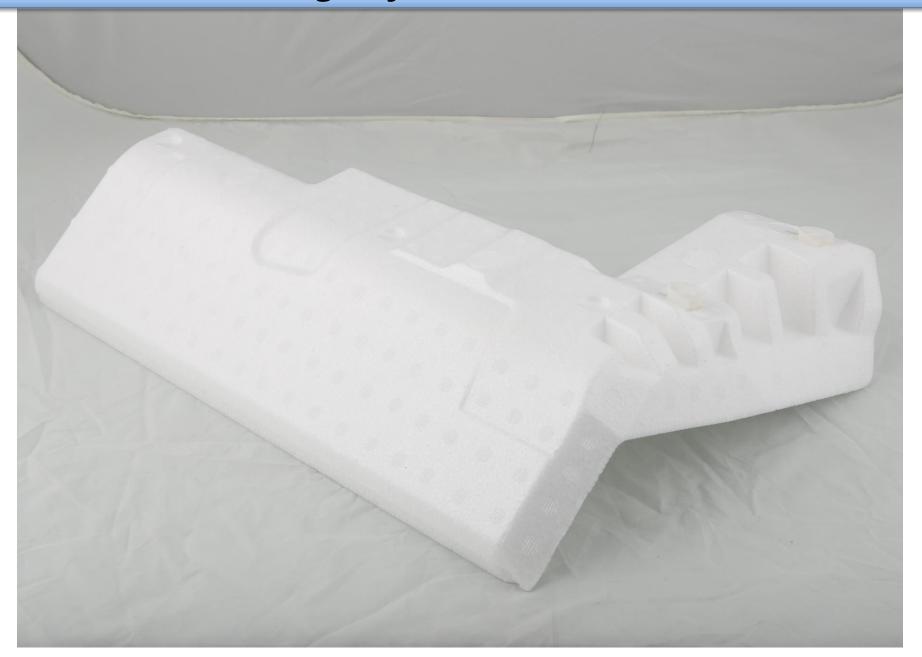


## Range of Products - VACUUM METALIZING



## Range of Products - VACUUM METALIZING











#### **Technical Assistance / Collaboration**

AVT is taking technical assistance from world renowned organizations, which are as under:

- Koito Manufacturing Co. Ltd. Japan
- Toyoda Gosei Co. Ltd. Japan
- Cubic Company Limited Japan
- Murakami Corporation Japan
- EP Moulds & Dies Malaysia
- Krauss Maffei Germany
- Auto Korea- Korea
- OH Sung Plastic Co. Ltd. Korea











Krauss Maffei





#### Manufacturing Facilities: Injection Molding PQA 75 ~ 2000 Ton



Manufacturing Facilities: Injection Molding HUB 150 ~ 3000 Ton



#### **Manufacturing Facilities:** Vibration Welding



## Manufacturing Facilities: Lamps Assembly Line



#### Manufacturing Facilities: Robotic Hot Melt Joining



#### Manufacturing Facilities: Hot Plate Welding



#### Manufacturing Facilities: Plastic Annealing Oven



#### Manufacturing Facilities: Integral Skin Foaming



#### Manufacturing Facilities: Expanded Polypropylene



#### Manufacturing Facilities: Hydrographic Printing



#### Manufacturing Facilities: Painting with SWIR curing



# Component Assembly - Ladies



# Component Assembly - Gents



# Testing Facilities

#### STEERING WHEEL TESTING

# **GRIP WEAR RESISTANCE TEST**







#### **HARDNESS TESTING**

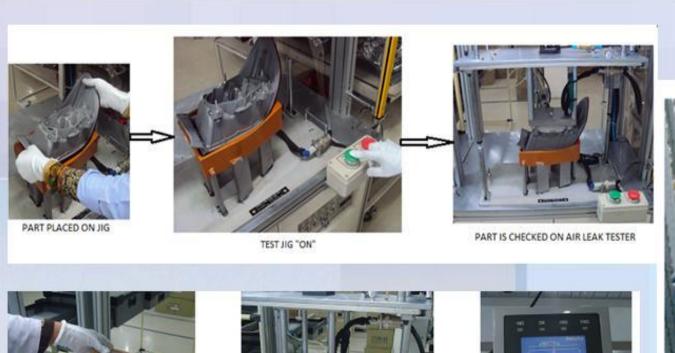




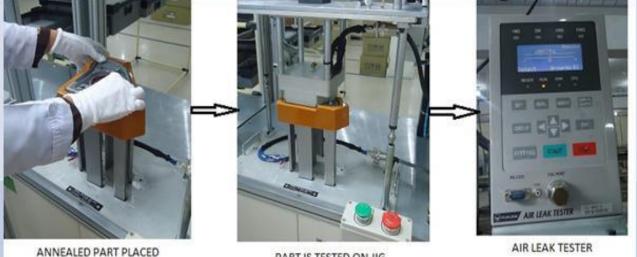


## **AIR LEAKAGE TESTING**

## CHL. RCL, BUL & JAR PUMP ASSY WASHER TANK TEST







PART IS TESTED ON JIG

ON AIR LEAKAGE TEST JIG

# **STEAM WASHING RESISTANCE TESTING**





#### **PAINT TESTING**

# CONSTANT TEMPERATURE BATH FOR WET CROSS HATCH TEST





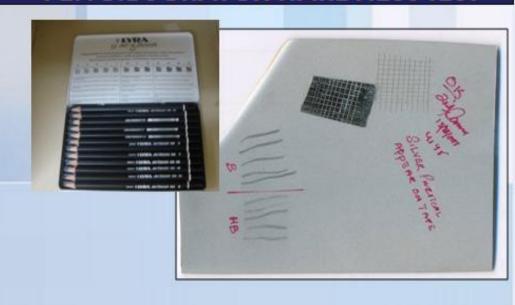
WET CROSS HATCH TEST SAMPLE



#### CHEMICAL RESISTENCE TEST

#### PENCIL SCRATCH HARDNESS TEST

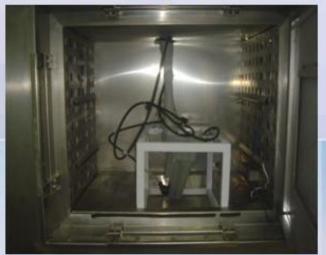




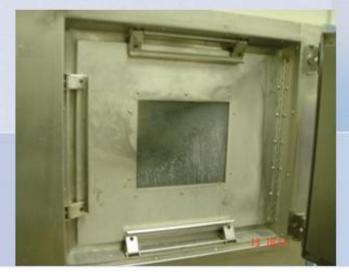
## **CLIMATE CHAMBER TESTING**

#### JAR AND PUMP ASSEMBLY WASHER

#### HOT CLIMATE



**COLD CLIMATE** 





# >PRODUCTION AND QUALITY CONTROL SYSTEM INFO CENTER

YAMAZUMI BASED EFFICENCY TREE

**ONLINE OBEYA** 

SIS

**5 S IMPLEMENTATION** 

#### EFFICIENCY TREE

## YAMAZUMI CHART

	PROCESS		STATUS			OBSERVATIONS (TIME IN SEC)										
SR.#			WASTAGE			1900	1 8 1	7 (4)		7926			0		1000	
		MAIN-PROCESS	SUB-PROCESS	ADDITIONAL	PROCESS	ACTUAL	1	2	3	4	5	6	7	8	9	10
7	Final Inspection															
		Picking up the Part				1.05	1.21	0.95	0.93	1.24	1.23	1.15	0.97	1.26	1.18	1.11
		Final inspection of Part				6.03	6.21	5.89	6.66	7.01	6.96	7.26	7.81	6.23	7.96	6.75
		Picking up Luster Spray gun				1.18	1.1	1.25	1.56	1.18	1.01	1.22	1.08	1.15	1.23	1.19
		Application of Luster	•			2.04	1.98	3.58	2.09	2.15	3.66	1.88	3.02	2.3	3.25	2.67
		Placement of Luster gun onto the table				1.11	0.95	1.12	1.23	0.88	1.22	1.25	1.18	1.41	1.2	1.14
		Picking up the Duster				0.98	1.15	1.22	1.03	1.25	0.88	1.13	1.15	1.26	0.98	1.1
		Application of Duster on Part				2.8	3.25	5.04	3.56	3.58	2.89	4.01	2.9	4.66	4.89	3.73
		Placement of Duster on table				0.88	1.15	1.2	0.86	1.24	1.13	0.96	1.23	0.95	0.98	1.07
		Picking up polish				1.12	0.98	1.11	0.86	1.24	1.18	1.16	0.95	1.23	0.98	1.07
		Application of Polish				4.58	3.29	5.01	2.34	5.82	2.59	5.88	6.01	5.89	6.89	4.71
		Cleaning of hands				2.12	2.44	1.98	2.12	2.15	1.85	1.19	2.85	2.45	1.66	2.18
8	Packing															
		Picking up the Part				1.15	1.22	1.18	1.25	1.32	1.24	1.04	1.11	1.21	1.17	1.21
		Picking of Polybag				1.02	0.97	1.25	1.33	1.25	0.96	1.12	1.36	0.99	1.28	1.16
		Placement of Part in Poly bag				3.01	4.41	3.54	3.29	4.47	4.49	4.85	3.75	3.04	4.03	3.78
		Placement of Part in box				1.21	1.25	2.02	1.25	1.89	1.12	1.24	1.36	1.13	1.15	1.38

#### BREAK UP OF TOTAL TIME (SEC)

Total Time	147.85 (2.46 min)
Actual Time	52.05
Process Wastage Time	73.31
Addational Wastage Time	22.50



# **PRODUCTION PLAN Online Obeya** MOULDING **HGTP & PAINT SHOP** STEERING WHEEL **ASSEMBLY** To l DISPATCH Exit BACK

# Reason & Solution

MOULDING

# **Online Obeya**

S Print

	- The same of the			
Last %	Current %	Description	Remarks	^
-8	0	- CASE BLOWER - CASE, BLOWER( 116242-4700)		
-9	0	- CASE BLOWER - CASE, BLOWER( 116242-4730)		
-8	-71	- CASE BLOWER - CASE, BLOWER( 116242-4780)	PRODUCTION CONTINUE. DELAYED DUE TO HOT RUNNER HEATER PROBL	≡
-2	-7	- CASE HEATER - CASE, HEATER( 116455-7920)		
-3	1	- CASE HEATER - CASE, HEATER( 116455-7960)		
1	-54	- CASE HEATER - CASE, HEATER( 116455-8170)	PRODUCTION CONTINUE.DELAYED DUE TO MOLD CORE PROBLEM.	
-6	27	065A (488W - BOX ASSY INST. PANEL - BOX FR ASH RECEPTACLE		
0	-4	065A (488W - BOX ASSY INST. PANEL - DOOR INSTRUMENT PANEL BOX BF		
0	-13	065A (488W - BOX ASSY INST. PANEL - DOOR INSTRUMENT PANEL BOX GI	COMPLETED TODAY.DELAYED DUE TO MACHINE HEATER PROBLEM	
-6	1	065A (488W - BOX ASSY INST. PANEL - PANEL INSTR. CLUSTER FINISH LV		
-3	-5	065A (488W - BOX S/A CONSOLE RR - BOX CONSOLE RR		
-2	-51	065A (488W - BOX S/A CONSOLE RR - COVER CONSOLE BOX HOLE 1	PRODUCTION CONTINUE, DELAYED DUE TO NEW MOLDS TRIALS.	
-2	-51	065A (488W - BOX S/A CONSOLE RR - COVER CONSOLE BOX HOLE 2		
1	0	065A (488W - BOX S/A CONSOLE RR - PANEL CONSOLE RR END		
-6	-1	065A (488W - DOOR ASSY GLOVE COMPARTMENT - DOOR GLOVE COMPAI		
-6	-5	065A (488W - DOOR ASSY GLOVE COMPARTMENT - DOOR GLOVE COMPAI		
0	-1	065A (488W - DUCT ASSY QUARTER VENT - DUCT ASSY, QTR VENT		
-2	0	065A (488W - ECU BRACKET - ECU BRACKET		
-8	0	065A (488W - GAR FR DR LWR FRAME BRA GARNISH FR DR LWR FRAM		
2	-3	065A (488W - GAR FR DR LWR FRAME BRA GARNISH FR DR LWR FRAM		
2	-3	065A (488W - GAR FR DR LWR FRAME BRA GARNISH FR DR LWR FRAM		
-6	-2	065A (488W - GAR. ASSY CTR PILLAR - GARNISH ASSY CTR PILLAR LHS		
-6	-1	065A (488W - GAR. ASSY CTR PILLAR - GARNISH ASSY CTR PILLAR RHS		
-1	-3	065A (488W - GARNISHES/PANEL - BOARD COWL SIDE TRIM LHS		
-1	-3	065A (488W - GARNISHES/PANEL - BOARD COWL SIDE TRIM RHS		
-4	-2	065A (488W - GARNISHES/PANEL - BOARD ROOF SIDE INNER GARNISH LE		v
1				

## SIS

#### **SPECIFIED INTERVAL SAMPLING SYSTEM (SIS)**

- A system by which samples are collected for inspection during production after specified intervals and marked accordingly
- ➢ Intervals selected on the basis of process stability Category A product → every 100th piece Category B product → every 50th piece Category C product → every 25th piece
- Production constantly transferred to store and collected sample boxes sent to QA Inspection shooters at the end of production

#### PREPARATION OF SIS SAMPLE BOXES



INSPECTION OF SIS SAMPLES

#### TRANSFER OF SAMPLE BOXES TO QA INSPECTION SHOOTERS





## **5S IMPLEMENTATION**

# CRUSHING AND MIXING OF RAW MATERIAL



AVT HANDLES MORE THAN 50
ENGINEERING PLASTICS IN 3 TO 4
DIFFERENT COLOURS. 5S IS THE KEY TO
CONTROL THIS COMPLEX MATERIAL
FLOW.

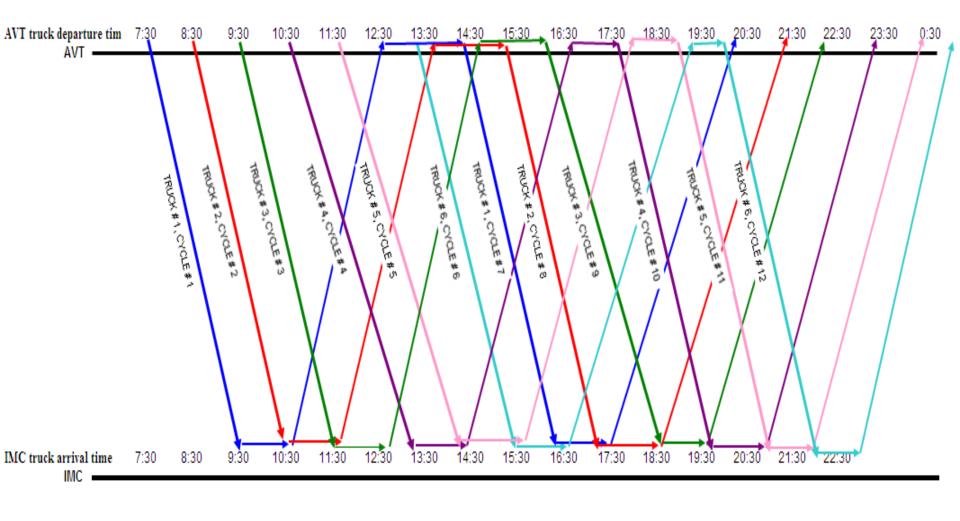




## >SUPPLIABILITY



#### KANBAN BASE AVT TRUCK MOVEMENT SCHEDULE





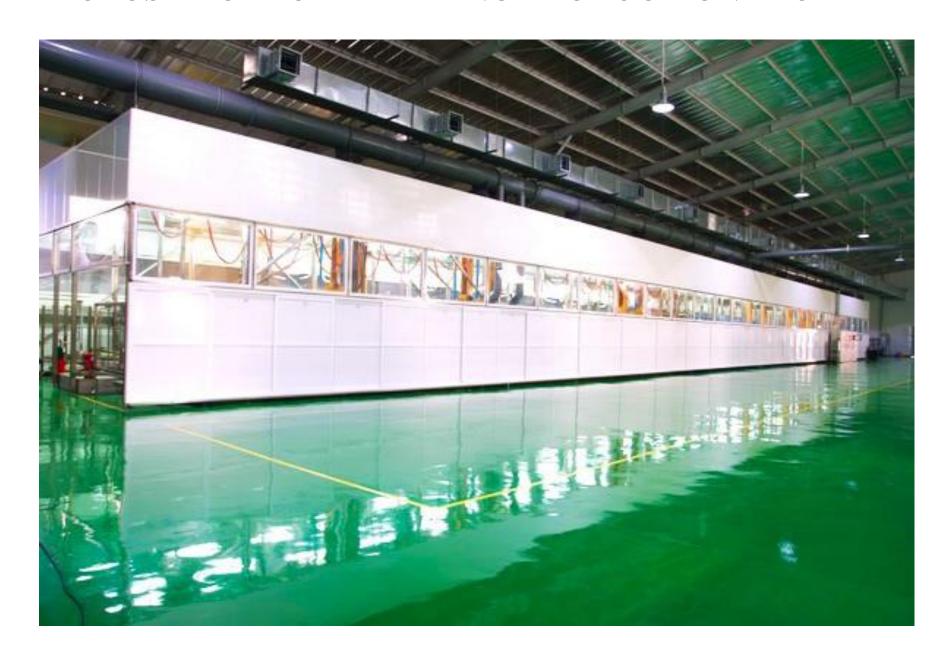
≥235,000 parts dispatch per month

➤IMC rating is excellent

# Future Plan

Fully Automatic 83 Tanks Chrome Plating Facility with Technical Assistance of Kanto kasai Japan

#### PROPOSED CHROME PLATING PRODUCTION FACILITY



## PROPOSED CHROME PLATING PRODUCTION FACILITY















# Email: avt@auvitronics.com, Ph: 021-34312322, www.auvitronics.com



MANUFACTURING UNIT - 01			
Location	Sector " A" - 137, 138, 153 & 154 H.I.T.E., Hub District Lasbella, Balochistan - Pakistan.		
Tel:	(92 853) 303014 - (92 853) 302875 (92 853) 302876 - (92 853) 302438		
Fax:	(92 853) 303013		
Email:	avthub@auvitronics.com		



MANUFA	TURING UNIT - 02					
Location	Plot No. SP-6, nwiz / P-133/C, North West Industrial Zone PORT QASIM AUTHORITY, Karachi, Sind					
Tel:	(92 21) 34750601 - 14					
Fax:	(92 21) 34750606					
Email:	avt@auvitronics.com					