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ISO 9001:2015

ISO 45001:2018

ISO 14001:2015

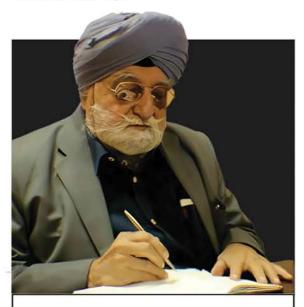
www.gilard.com

#### **ABOUT US**

### Gilard Philosophy

Gilard's organisational structure & working stems from its philosophy which is perfectly summed by our founder's words, "Lesser the number of uncertainties, Greater the chances of Success."

In keeping with this belief, Gilard has a wide organisational base under one roof, which includes: Design & Development - Tool Room - Moulding Shop - Press Shop - Automats Shops - Electroplating - Assemblies - Quality Assurance & Marketing for better control on Quality, Cost & Delivery.



"I have always laid the utmost importantce on the two constant beliefs in my life - Honest Dealings in Business and the higher priority for me than a transitory profit. That's how Gilard has been doing its business for the past six decades."

H.S. Sethi (Chairman)

### **Company Vision**

To be the first choice of our customer.

### **Company Mission**

To be a supplier to the Automobile, Electronic and Electrical Industry and achieve perfection in whatever we do.

### **Quality Policy**

Our vision to be the first choice of our customer drives us to improve the way we think, change and act on a continuous basis. We shall measure our performance by our quality, delivery and the skills of our people. We shall maximise our effectiveness by continuously improving our products, processes and services based on customer inputs and our internal metrics.



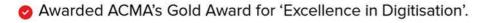
"Gilard is a One Stop Shop for customers looking for highly complex & customised products."

#### **MILESTONES**

Started in Kota (Rajasthan), as a partnership concern, manufacturing Valve Sockets for radios. • Started Manufacturing Electronic Components and renamed as Gilard Electronics. 1975 Registered as Gilard Electronics Pvt. Ltd. Shifted plant from Kota (Rajasthan) to Mohali (Punjab). 1995 Certified For ISO 9001. 2000 Certified for IATF 16949. 2004 Certified for ISO 14001. 2006 • Certified for ISO 45001. Formation of Gilard's CSR Team EHSAS focusing on Corporate Social Responsibility. Gilard Application Programmers LLP (sister concern of Gilard Electronics Pvt. Ltd.) is registered as a Company. 2017 ● Won ACMA's Gold Award for 'Excellence in Digitisation' for implementing Industry 4.0. 2020 Certified as a Great Place To Work™ by the Great Place To Work™ Institute. • Gilard celebrates its Diamond Anniversary with 60 Years of Operations. 2024 • Inauguration of Gilard's R&D Department which is recognised by Department of Scientific & Industrial Research (DSIR), Govt. of India.

### Gilard is an Award Winning Company





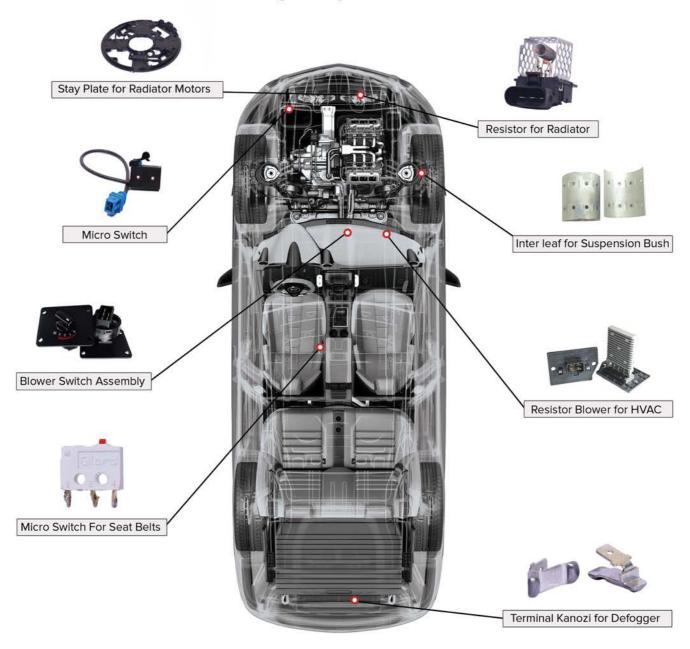
- Only Company in Punjab to receive QCI ZED Certificate with Diamond Rating.
- Highlighted in a study by UNIDO as an Industry 4.0 Smart Manufacturing Plant.
- Won QCI-D.L.Shah Gold Quality Award for Productivity Improvement in Moulding Shop.
- Gilard gets Punjab State MSME Award.
- Gilard wins an Award at ACMA's Northern region 5S Competition 2019.



Place

### Research and Development

Gilard has a government recognised inhouse R&D centre which houses a team of experienced design engineers in our New Product Development Team who create drawings and models for child parts, finished products and tools for mass production. Our R&D team works as per the 5-D model of New Development which is a Gilard patented method of development cycle which includes Function Study, Design and Process FMEAs. We also have provision for additive manufacturing (3-D printing) and our in-house captive Tool Room manufactures the tools, moulds, jigs and fixtures as per the design team. Our R&D centre also houses a LAB for validation and testing of our products.



### R&D Process



### New Business Development

Gilard's team conducts market research and identifies market needs for a specific product which can be taken up for development.



### **Product Design**

Gilard's OSM<sup>™</sup> - NPD software solution is used to design new products by our certified design engineers. The team works on customer's input which can be a finished drawing, a sample, a 3D model or just a concept. State of the art design softwares like Solidworks, PTC Creo, are used for Solid Modelling as well as Prototype Sampling.



### **Tool Design**

We design the moulds, press tools, jigs and fixtures as well as checking aids. We mostly design progressive tools for our sheet metal parts and multi cavity moulds for our plastic moulded parts. For our assembly processes, we design jigs, fixtures as well as Special Purpose Machines.



### Tool Manufacturing

We have a captive tool room which is equipped with sophisticated machines like CNC Wire Cuts, EDMs, Machining Centres, Grinders, etc. We also have measuring equipment like CMM, Profile Projectors and Tool Maker's Microscope. The entire tool room is manned by highly skilled machinists, tool makers and inspectors.



### **Product Validation**

Our design and development activity starts by capturing the 'Voice of the Customer' and then freezing the DVP (Design Validation Plan). All design activities like function study, QFD, DFMEA are based on the DVP. Once the development activities are completed, the pilot samples are subjected to testing as per the DVP in our in-house LAB as well as our approved LABs.



### INJECTION MOULDING

Gilard has facilities for Injection Moulding of Thermoplastics as well as Thermosetting Material. Besides these, Gilard also does Compression, Rubber and Insert Mouldings. The machine capacities range from 30 to 250 tons. Different Injection engineering plastics like Nylons, Polyesters, Acetals, Polycarbonates, ABS, PP, PPO, PPS and elastomers are processed.

Gilard is equipped with fully automatic computer controlled machines including 15 Thermoplastic Horizontal Machines, 6 Vertical Injection Moulding Machines, 5 Horizontal Thermoset Injection Machines, 2 Compression Moulding Machines & a Vertical Thermoset Injection Machine.





Gilard uses high speed power presses (upto 600 spm) and medium speed presses with progressive tools for making stamped parts. The machine capacities range from 10 to 80 tonnes. Most of the presses are fitted with feeders and decoilers. Different materials like CRCA, GI, Copper, Phosphor Bronze, Beryllium Copper, Stainless Steel, etc are processed. We also do draw and forming operations in our stamping shop.













### **PLATING**

Gilard has an in-house Plating Shop which has lines for Gold, Silver, Tin, Nickel, Copper and Zinc Platings. While most of the lines are semi automatic, the silver line is fully automatic. Gilard is an environment conscious company and takes care that all platings are ROHS compliant. Gilard also has an Effluent Treatment Plant in place to treat the effluent.

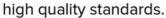








Gilard is an equal opportunity provider and that is obvious when one walks into the assembly shop which is run by a sea of women workforce. Gilard has flexible lines for different products and dedicated lines for specific customers enabling us to cater to requirements of both high volumes as well as high variants. The lines are scientifically designed to yield maximum productivity with zero defects using techniques of Line Balancing, Lean Management and Pokayoke. Single piece flow with on-line inspection and testing ensures





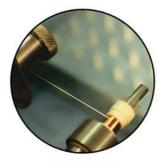






### **SPECIAL PROCESSES**

Gilard is equipped with Special Purpose Machines to perform certain special processes required for customised product requirements for the customers. These include processes like Printing, Spot Welding, Dip Soldering, Hand Soldering, Winding, Heat Shrinking, Cementing, Potting, Wire Cutting and Paint Fill.



WINDING
Using high speed
automatic machine
capable
of winding wire as fine
as 0.06mm



POTTING
Using 2 part epoxies &
PU for sealing &
waterproofing the
assembly.



SPOT WELDING
3 Phase 25 KVA spot
welding machines to
spot weld two metals
together using Tungsten /
Copper electrodes



SOLDERING
Electronically controlled,
temperature
displayed soldering
stations in place where
ever required.



## **OUR VALUABLE CUSTOMER LIST**

amber	S MARUTI SUZUKI	Lucas TVS	TRELEC
BOSCH	<b>♦</b> RENAULT	( Hero	VII Vibracoustic
8 GREENFUEL	DAIKIN	MAHLE	DENSO .
WABCO	Subres	HONDA	Panasonic
BLUE STAR	MITSUBISHI	SML	ENGE
НУППОЯІ	KINETIC	TATA MOTORS	Asahi India Glass Ltd.
<b>Delphi - TVS</b> Technologies	BHARAT BECTRONICS	SAINT-GOBAIN	Schneider Electric
Enjoy Technology	SWaraJ Mahindra Rise.	(III)	Godrej
FOCUS TEK	Audi	SANDEN	-All for dreams

<sup>\*</sup>The logos depicted above are registered trademark of companies for whom we are Tier 1 / Tier 2 supplier.



### **SMART Manufacturing Plant**

A study conducted by UNIDO (United Nations Industrial Development Organisation) named Gilard as a manufacturing company with advanced levels of Industry 4.0 controls. Gilard also won ACMA's Gold award for "Excellence in Digitisation".

This is made possible by OSM (Operating System For Manufacturing) developed by Gilard Application Programmers LLP (Part of Gilard Group) which is a multiple modular, integrated software designed to digitise the business as well as manufacturing processes in an organisation thereby helping to streamline all processes as per best industrial practices like Lean Management, APQP, PPAP, MSA, FMEA, SPC, TPM and TQM.



**Business** Development & Sales (CRM, CLM)



**New Product** Development



Human Resource Development & Payroll



Document Control



Financial Accounting & Asset Management



**Product Life** Management



Manufacturing & Purchase & Inventory Management



**Quality Control** 



**Total Productive** Maintenance



Dashboard (Management Information System)



#### We do the same, just a lot better.

Better Production Planning Control ...

... to ensure on-time deliveries.

Better Material Planning Control ...

... to ensure No Production Hold-ups.

Better Process Control ...

... to ensure better and consistent Quality. Better Cost Control ...

... to ensure a better price / value.

This OSM software has been developed and customized over a period of 37 years and controls every process at Gilard including monitoring production in real time.

### Gilard CSR



Gilard's management strongly believes in Social Responsibility and have been actively engaged since 2011, even when Gilard was not legally mandated by law to do so. At Gilard. we believe that the main purpose of any organisation is to be a positive contributor to the society. Gilard has a dedicated in-house CSR team named 'EHSAS' which stands for Environment, Health, Safety & Society, which has been active since 2011 and works towards sensitisation of the immediate society on various social issues. Gilard's Team EHSAS works with various NGOs and supports and donates for different causes actively for the betterment of the society. Gilard works for the following causes:

Empowering people with disabilities by providing support and assistance for employment opportunities.

Donating to NGO that work diligently to promote the rich heritage of Indian Classical Arts.

Working with NGOs dedicated to the development of children with or at risk of Developmental Delays / Learning Disabilities / Mental Retardation.

Assisting NGOs that spread awareness on breast cancer and cervical cancer by organizing free mammography and pap smears and support poor patients in need of treatment.

Supporting an NGO that aims at social upliftment and empowerment of poor girl children who are either orphans or abandoned by their families, through holistic education.















"In the end, it is never just about running a business, sales growth or profitability. The true measure of a company is not just what it does for shareholders and clients, but how well it addresses the needs of its employees and the immediate society."

H.S. Sethi

(Chairman)





### **SPECIAL FEATURES:**

- Rating 12V DC
- Coupler Mounting
- -Imbedded Contacts (not PCB) for long Life

### **CONSISTS OF:**

- Wiper Switch (dual speed) + Flash
- Washer Switch
- Hazard Switch
- -Indicator Switch
- Horn Switch
- Head Lamp On-Off
- Dipper Switch

GE 2210



### **RESISTORS**



4 SPEED RESISTOR WITH TCO (Scorpio)



GE 2341-01

PLATE TYPE RESISTOR (X1, FCA, Y1, TML)



**GE 2371** 

FET



GE 2321

4 SPEED RESISTOR (Indica & Scorpio)



GE 2302

3 SPEED RESISTOR BLOWER WITH THERMAL FUSE (Tata Nano)



GE 2331-05

4 SPEED RESISTOR (Maruti Estilo)



GE 2162-03I

4 SPEED RESISTOR BLOWER (Tata Indica, Maruti Versa, Sumo Face Lift Reva Electric Car)



GE 2214

RADIATOR RESISTOR (Mahindra S101 & Tata)



RADIATOR RESISTOR (Mahindra TUV)



GE 2214-07N

RADIATOR RESISTOR (Tata Nexon)



GE 2214-09

RADIATOR RESISTOR (Tata Curvv)



GE 2214-05M

RADIATOR RESISTOR (Tata Nexon)

# COMPONENTS STARTERS, ALTERNATORS & MOTORS



FIELD MOULDING (ACE Start Stop - Tata)



FIELD MOULDING (Tata Cummins Ltd.)



FIELD MOULDING (Maruti Wagon-R)



REGULATOR MOULDING (Maruti)



REGULATOR MOULDING (VECV Truck)



REGULATOR MOULDING (Tata Narrow Cab & Sumo Gold)



FIELD MOULDING (Tata Narrow Cab VECV Truck)



**BRUSH BOX MOULDING** 



### SWITCHES FOR LCV



MANUAL BATTERY CUT OFF SWITCH : 12 / 24V, 100 / 250 Amps Operation: Rotating 90° to disconnect

and connect



RELAY SUB ASSY (Relay based BCOS) Rating : 12V /24V, Max 300Amp Available in SPST and DPST versions

GE 781-01

**NEUTRAL SAFETY SWITCH (NC TYPE)** Rating : 24V DC, 0.5 Amp

Operation: Push to Off



GE 751

SWITCH STOP LAMP Rating : 12V DC, 8 Amp Operation : Push to Off



GE 752

**SWITCH ACCELERATOR** Rating : 10V DC, 3 Amp Operation : Push to On



SWITCH EXHAUST BRAKE

Rating : 12V DC, 3 Amp Operation: Rocker Type



SWITCH ROOF LAMP

Rating : 12V DC, 5 Amp Operation : Push to On / Push to Off

SWITCH ROOM WARMER

Rating : 12V DC, 0.5 Amp Operation : Push to On / Push to Off

GE 768-FL **SWITCH FOG LAMP** Rating : 12V DC, 10 Amp Operation : Rocker Type





**DIFF SWITCH** 

: 12V DC, 0.5 Amp Rating Operation: Push to On / Push to Off



DOOR SWITCH

: 12V DC, 2 Amp Rating Operation : Slide to On



**CNG SWITCH** Rating : 12V DC Operation: Push to On

### **SWITCHES FOR TRACTORS**



START SWITCH

Rating : 12V DC, 30Amp Operation : Rocker Type Termination : Lug Type



LIGHT SWITCH

Rating : 12V DC, 10 Amp Operation : Rotary Termination : Screw Type



START SWITCH Rating: 12V DC, 15Amp



**BRAKE LIGHT SWITCH 60 HP MODEL** 

Rating : 12V DC, 10 Amp Operation : Push to off



**BRAKE LIGHT SWITCH** 

: 12V DC, 10 Amp Termination : Clip on

GE 761-04

HAZARD SWITCH (TOGGLE TYPE) Rating : 12V DC, 11 Amp

Operation : Toggle Salient Features : One input /

Two outputs



HORN PUSH BUTTON

: Clip on & Screw Type Termination Salient Features : Protective rubber

cap provided



**NEUTRAL SWITCH** 

: 16V DC, 5 Amp Rating Termination: Wire Insertion Type



INDICATOR SWITCH

Rating : 12V DC, 10 Amp Operation : Toggle

**Termination: Wire Insertion Type** 

### **BLOWER SWITCH SERIES**



GE 2219-SV

SWITCH (12/24V)

3 SPEED BLOWER SWITCH (12/24V)

WITH PLATE















### **WIRE ASSEMBLIES**



**OVERMOLDED ASSEMBLY** 



CONNECTOR CABLE FOR DIESEL **FUEL PUMPS** 



**FUEL INJECTOR CONNECTOR WITH GOLD PLATED TERMINALS** 



WIPER COVER ASSEMBLY



INNOVA BAKELITE TERMINAL

(Maruti Esteem)



SWITCH ASSY CONTROL (Maruti 800)



SWITCH ASSY CONTROL (ZEN)

### **TERMINAL BLOCKS**



#### GE 1265 - 01

4 WAY TERMINAL SEAT (SMALL) Rating: 300V AC 25A



#### GE 1266

4 WAY TERMINAL SEAT (BIG) Rating: 300V AC 25A



### GE 1268

5 WAY TERMINAL BOARD Rating: 300V AC 25A



4 WAY TERMINAL STRIP Rating: 600V AC 35A



#### GE 1265-02

3 WAY TERMINAL SEAT Rating: 300V AC 25A



#### GE 1267

3 WAY TERMINAL SEAT (SMALL)

Rating: 300V AC 25A



#### GE 1269

**4 WAY TERMINAL STRIP** Rating: 600V AC 60A



#### GE 1271

3 WAY TERMINAL STRIP Rating: 600V AC 25A

### **COLD START SET UP FOR DIESEL VEHICLES**



HEATER RELAY

Rating: 12V DC, Permissible current 200Amp **SPECIAL FEATURES** 

- Mounting pitch 46mm.
- Coupler arrangment with flexible wire.
- Bright zinc plating to prevent corrosion.



AIR HEATER

Rating: 11V, 130Amp SPECIAL FEATURES

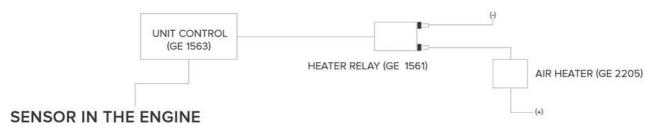
- Mounting pitch 85 x 85.11 mm holes.
- Body made of pressure die casted Aluminium.
- Connection through copper stranded PVC wire.



Rating: 12V DC Normal Temperature Characteristics of Timer

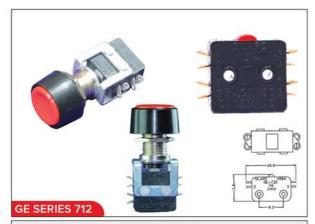


#### COLD START SET UP FOR DIESEL VEHICLES



Unit Control (GE 1563) senses the temperature using a sensor and the internal circuit decides the time duration of the heating to be provided to the engine. Triple timers energise the Heater Relay (GE 1561) which in turn power the Air Heater (GE 2205) for the required duration to start the engine.

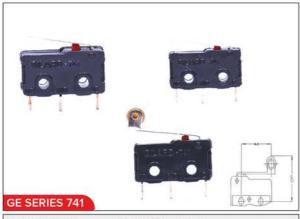
### **MICRO SWITCHES**



Contact Rating : 230V AC, 2 Amp Contact Resistance : 30m ohm (max) for Gold Plating 20m ohm (max) for Silver Plating



: 230V AC, 10 Amp **Contact Rating** Contact Resistance : 10m ohm (max)



Contact Rating : 230V AC, 3 Am Contact Resistance : 10m ohm (max) : 230V AC, 3 Amp



**Contact Rating** : 230V AC, 15Amp Contact Resistance: 10m ohm (max)



**Electrical Specifications:** 

**Operating Force** : < 300 N

Endurance / Life test: 5,000,000 Cycles

Operating Voltage : 6-15 Volts **Dielectric Strength** : > 500Volts



**Electrical Specifications:** 

Operating Force : 1.96 N or less Endurance / Life test : 50,000 Cycles Operating Voltage : 12V DC, 1 Amp Insulation Resistance: 1M ohm at 500V DC

#### **TOGGLE / ROCKER SWITCHES**



#### **GE SERIES 713**

M12 BUSHING

Rating : 230V AC, 4.5 Amp Contact Resistance : 20m ohm (max) Insulation Resistance : 100M ohm (min)



#### GE SERIES 726-1

M12 BUSHING

Rating : 230V AC, 6 Amp Contact Resistance : 10m ohm (max) Insulation Resistance : 1000M ohm (min)



#### GE SERIES 726-2

M12 BUSHING

Rating : 230V AC, 10 Amp Contact Resistance : 10m ohm (max) Insulation Resistance : 1000M ohm (min)



#### **GE SERIES 726-3**

M12 BUSHING

Rating : 230V AC, 15 Amp Contact Resistance : 10m ohm (max) Insulation Resistance : 1000M ohm(min)



#### GE SERIES 726-4

M12 BUSHING

Rating : 230V AC, 20 Amp Contact Resistance : 10m ohm (max) Insulation Resistance : 1000M ohm (min)



#### **GE SERIES 727**

M6 BUSHING

Rating : 230V AC, 3 Amp Contact Resistance : 10m ohm (max) Insulation Resistance : 1000M ohm (min)



#### GE 714-321B / 322B

DPST WITH BLACK KNOB / DPDT WITH BLACK KNOB Current Rating : 16 Amp

Current Rating : 16 Amp Operating Voltage : 250 V AC



#### GE 714-321R / 322R

DPST WITH RED KNOB / DPDT WITH RED KNOB

Current Rating : 16 Amp Operating Voltage : 250 V AC



#### GE 714-321Y / 322Y

DPST WITH YELLOW KNOB / DPDT WITH YELLOW KNOB Current Rating : 16 Amp Operating Voltage : 250 V AC



#### GE 714-321G / 322G

DPST WITH GREEN KNOB / DPDT WITH GREEN KNOB Current Rating: 16 Amp Operating Voltage: 250 V AC



#### GE 714-321AI

DPST WITH ILLUMINATED

AMBER KNOB

Current Rating : 16 Amp Operating Voltage : 250 V AC



#### GE 714-321RI

**DPST WITH ILLUMINATED** 

**RED KNOB** 

Current Rating : 16 Amp Operating Voltage : 250 V AC

### SHEET METALS / MOULDINGS



















## DEALER NETWORK



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