

**ITTI, LLC Serving North America**

# OVERVIEW



**ITTI, LLC**

Your Gateway to India for  
**CONTRACT MANUFACTURING AND JOINT VENTURES**

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# Company Profile



1. **Established in 1984 in Waukesha, WI (USA) as International Technology Transfer, Inc (ITTI).**
2. Relocated company HQ to the metro Atlanta area and reincorporated as ITTI, LLC on June 1, 1997.
3. **Launched outsourcing division on May 1, 2004.**
4. Outsourcing business grew 20,000% between January 1, 2005 and Dec 31, 2010.
5. **Principals: Ashok Thakkar, CEO; Bharati Thakkar, CFO**

# Products & Services



## Contract Manufacturing:

- PC Board Design, Assy and Testing
- **Electronic Assemblies such as Connectors, Black Boxes, etc.**
- Sheet Metal Fabrication including Powder Coating
- **Precision Stamping and Assemblies**
- Injection Molding (Molds as well as Components)
- **Wire Harnessing**
- Turn-Key Projects (Turn-Key Manufacturing of newly invented products)



# Products & Services (Continued)

## Joint Ventures in India

**ITTI can help North American companies to form joint ventures in India.**

Joint Ventures can take multiple forms: Technical Collaborations, Equity partnerships, Licensing Agreements, etc.

**Potential clients should contact our office for details.**



# Strengths

1. Guarantee of Zero Defects quality
2. **97% on-time shipping performance**
3. Guaranteed protection of client's intellectual property
4. **Exceptional project management**
5. Highly ethical handling of your account
6. **Exceptional service and communication**
7. The client will be dealing with an American company (even if the work is done in India), thereby assuring full legal protection.



## Strengths (Con't)

7. We will obtain UL, CSA or Intertek ETL certificates for you and develop appropriate production facility in India as needed.
8. **ITTI's founder, Ashok Thakkar is one of the pioneers in Supply Chain Management and Zero Defects research work in North America. This research work, coupled with Ashok's experience in managing manufacturing plants in USA has afforded him a unique skillset to deliver these services.**
9. Being of Indian origin and having settled in USA since 1976 make Ashok and Bharati well versed in both cultures – socially as well as in business circles.



## Examples of “Turn-Key Projects”

**“Turn-Key Projects are those projects where the Indian supplier would do most or all of the following activities:**

- Re-engineer the product (or fine-tune the product that is designed and patented by someone but not engineered for cost effective manufacturing).
- **Design tooling, fixtures, inspection gages, etc.**
- Design packaging and printing including owners manuals plus obtain necessary certs such as UL/CSA/FDA
- **Manufacture the product, test it, package it and ship to destination(s). Example, Heaters, LED Light Assemblies, etc.**



June 9, 2016

To Whom it May Concern:

Please accept this letter as an affirmation of the Contract Manufacturing Services ITTI has provided to McMillan Electric Company since 2006.

We are a high volume manufacturer of electric motors. In 2006 we developed and patented a high efficiency electric motor that uses 50 to 70% less electricity than most other motors in the marketplace. Our customers were excited about the energy savings associated with this product.

The only down side to this new design stems from the fact that the purchase price is higher than a traditional motor due to the electronics incorporated in the motor. The energy savings quickly pay for this difference, however, we were experiencing initial purchasing resistance due to the higher price.

This is where Ashok and ITTI stepped in to help McMillan. We needed a low cost provider of PCB electronic circuit boards in order to minimize the price difference between our high efficiency motor and the traditional design. Ashok spent a great deal of time in India searching for a high quality PCB vendor. After interviewing dozens of candidates he selected three that he thought were exceptional. McMillan personnel, along with Ashok, interviewed each of these applicants and eventually selected our current vendor AIF.

From the beginning people at AIF were exceptional to work with. They were small but they were eager to grow. They were willing to work with us when our volume was low in order to incubate growth in this new product line. They were also trustworthy and willing to protect our patented intellectual property.

Ashok introduced AIF to ISO quality systems that enabled them to build high quality products from the very beginning. He provided guidance to AIF in the writing of work instructions as well as the documentation of all production processes. These quality documents enabled AIF to meet specific quality goals while achieving an exceptionally low defect rate.

We are truly grateful to Ashok for bringing us an exceptional vendor and for his efforts to incorporate a culture of quality throughout AIF. I am happy to say that our high efficiency motor now represents more than 50% of our company's total sales. We could not have done this without the input and professionalism Ashok Thakkar and ITTI brought to the table.

Sincerely,

Doug McMillan  
CTO McMillan Electric Company

McMillan Electric Company • 400 Best Road • Woodville, Wisconsin 54028 • Tel: (715) 698-2488 • Fax: (715) 698-2297

## Testimonial # 1





June 20, 2016

To Whom It May Concern,

It is with great pleasure that I offer this letter of recommendation for Ashok Thakkar and ITTI on behalf of Advanced illumination, Inc., a manufacturer of lighting & electronics for the Machine Vision Industry.

I approached Ashok in 2012 to explore manufacturing in India. He had a well-earned reputation as a leading ISO compliance professional in the United States and I found him to be a very straight forward, honest and extremely capable. At the time, we needed a higher volume contract manufacturer that could *complement*, not replace, our in-house manufacturing capabilities. I arranged to have him come up to our factory in Vermont to explore a possible partnership.

What started as a typical discussion about a business opportunity, quickly led to an in-depth review of our efforts to acquire ISO 9001 certification. Ashok offered us his vast knowledge about the certification process by giving us a series of compliance templates that he had developed over the years as an ISO consultant. In addition, he gave us priceless insights and tips that would help us to develop our own Quality System Procedures. Ashok told us we could call him at any time throughout our certification process and that he would help us in any way he could.

When the discussion returned to the task at hand, we learned about the process Ashok employed to vet and then develop his contracting resources in India. He used a very stringent process to weed out all but the most dependable vendors and then worked with them to develop the same Quality Systems that his U.S. based customers had acquired. In addition, he educated them about the business expectations of Western companies.

Ashok introduced us to two contractors in Bangalore, sister companies AIE and VIE, electronic assembly and component fabrication facilities, respectively. We were very impressed with these companies. The level of sophistication they demonstrated regarding manufacturing and quality processes, human resource management and capital investment were on par with similar companies in the West. After several years of working with these companies, an opportunity to partner with a very demanding German company in need of high volume lighting products, presented itself. Arrangements were made for the customer to perform preliminary Quality audits at the facilities in Bangalore. At the conclusion of the audits, Ashok asked the customer if ITTI's companies had met their expectations. The auditor quickly replied no..... they had *exceeded* their expectations.

If you have an opportunity to work with Ashok and his team of Indian suppliers, I highly recommend that you do so. You won't be disappointed.

Sincerely,

John Thrailkill  
Co-founder & CEO, Advanced illumination, Inc.

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## Testimonial # 2



December 31, 2011

**Ashok M Thakkar, President and CEO,**  
**ITTI, LLC**  
80, Old Sandhurst Landing,  
Johns Creek, GA-30022 (USA)

Sub: Thank you for your exceptional service to SCHOTT Gemtron since 1994

**Dear Ashok,**

It has been more than 17 years since you began your association with SCHOTT Gemtron Corp. I wanted to take this opportunity to express my sincere appreciation for the exceptional service provided by you and your associates.

Our association began with ISO 9002 consulting services you provided to all our plants in USA and Mexico. This eventually culminated into full compliance with ISO 9002:1994, ISO 9001:2000 and then ISO 9001:2008. Thanks to your strong GMS, we continue to run efficient, high quality operations in all our locations.

Beginning 2008, the partnership between SCHOTT Gemtron and ITTI, LLC expanded into contract manufacturing in India for our Food Display business. I am very proud of the fact that ITTI has supplied zero defects products in all of 2010 and 2011.

In addition to zero defects quality of the products, we are also very happy with the quality of service ITTI continues to provide. Your entire organization including the Indian suppliers and staff reflect high integrity and ethics. Your innovative supply chain management and effective project management are better than any I have seen. We know our intellectual property is safe in ITTI's hands.

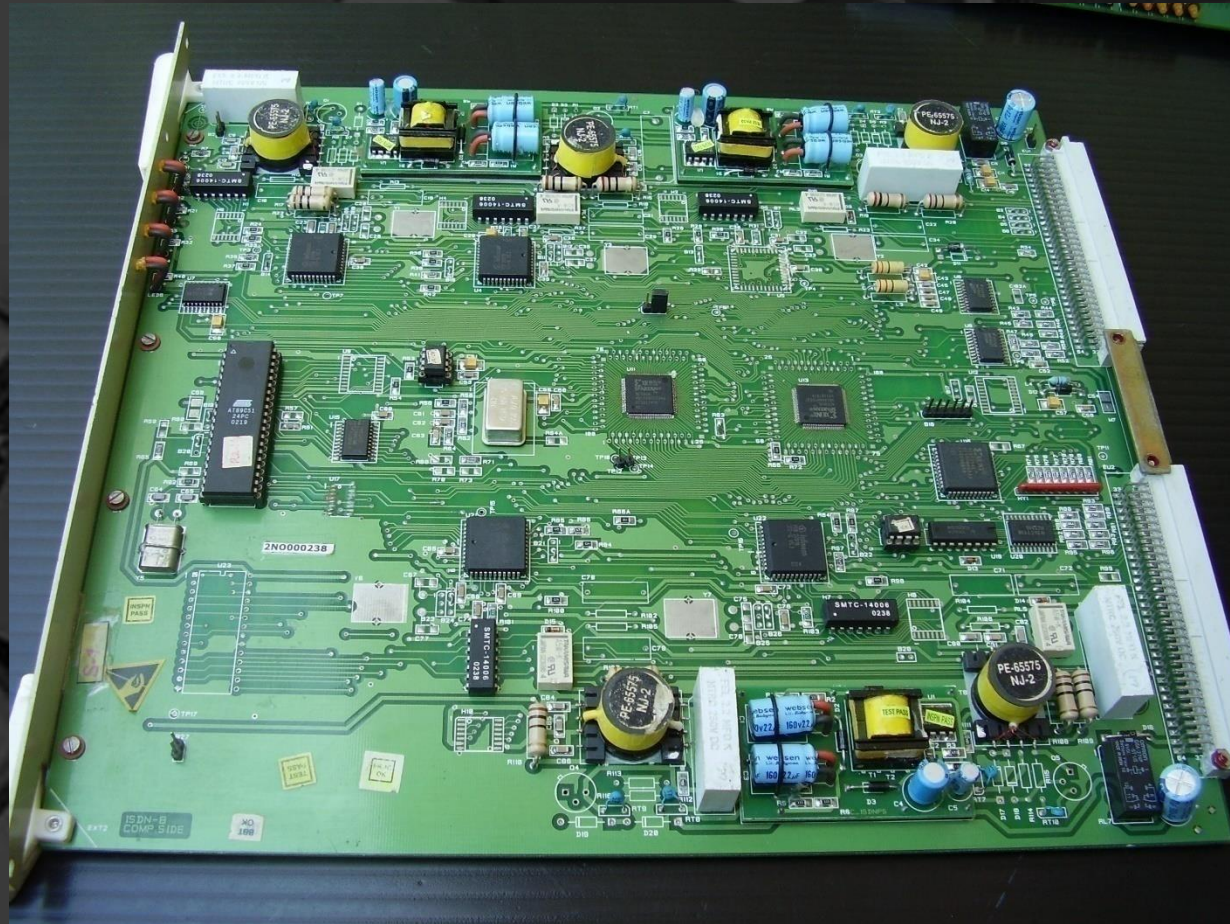
Once again, thank you for this wonderful work you are doing for us. I wish you a very successful future with SCHOTT Gemtron and with your growing list of clients.

Regards,

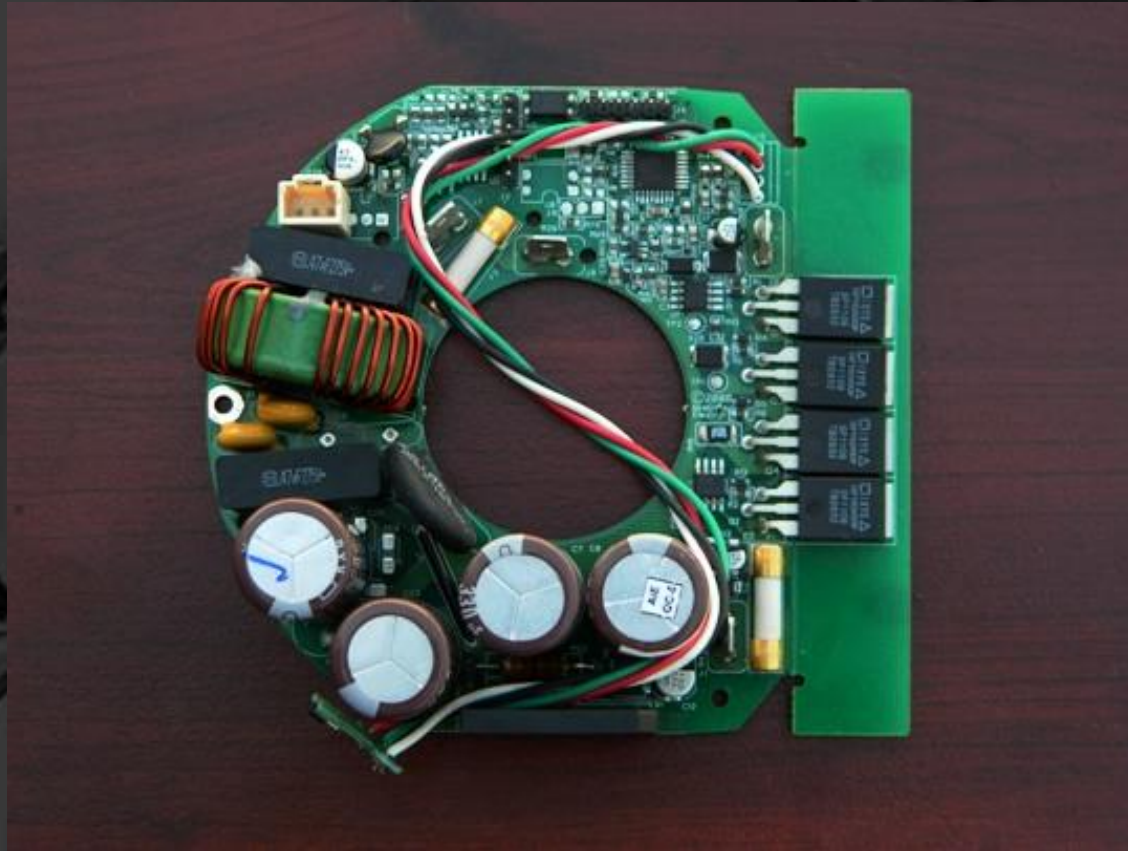
Doug Roberts  
President & C.O.O.  
SCHOTT Gemtron Corporation

## Testimonial # 3

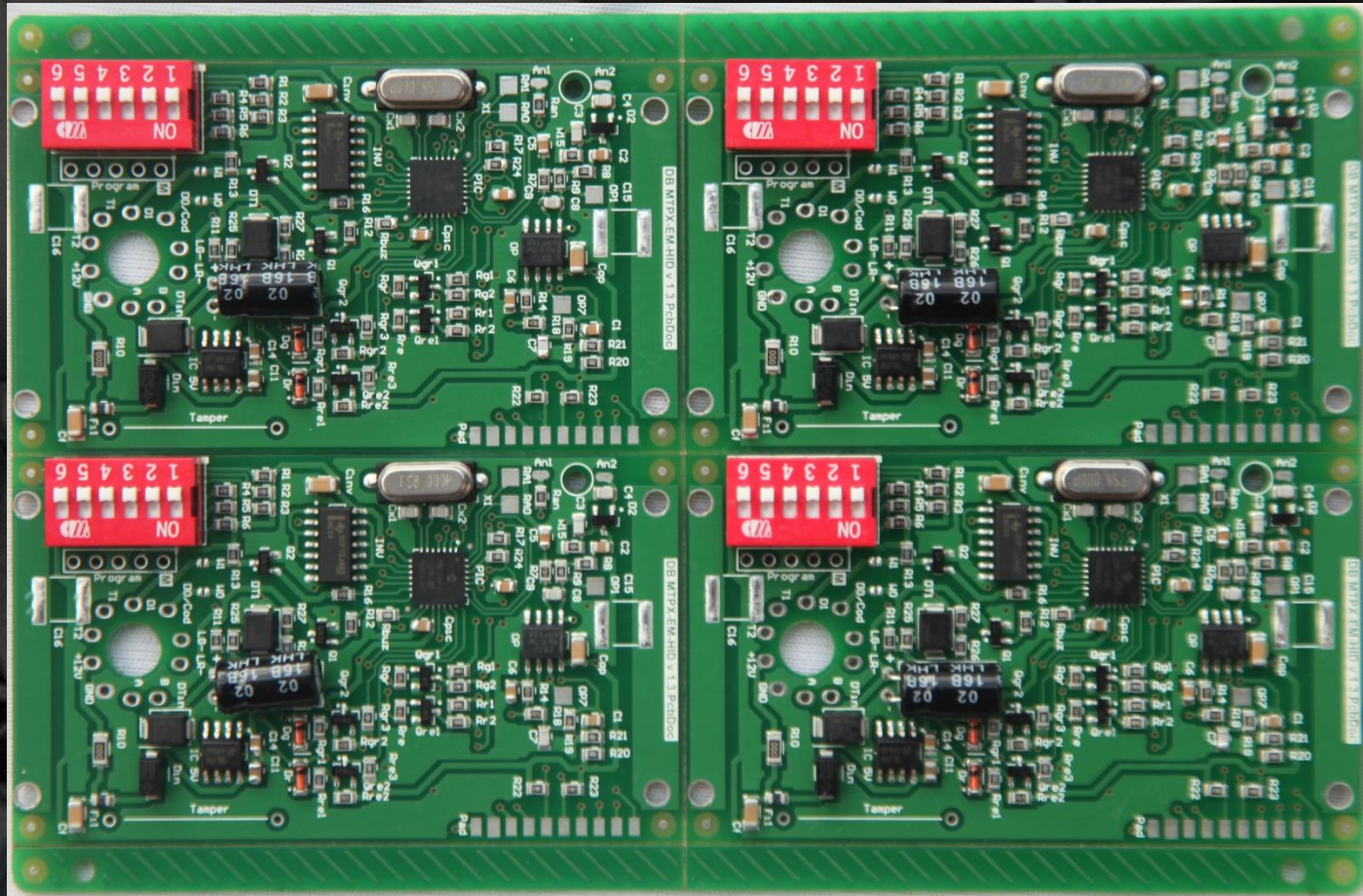
# PCB Assembly Sample 1



# PCB Assembly Sample 2



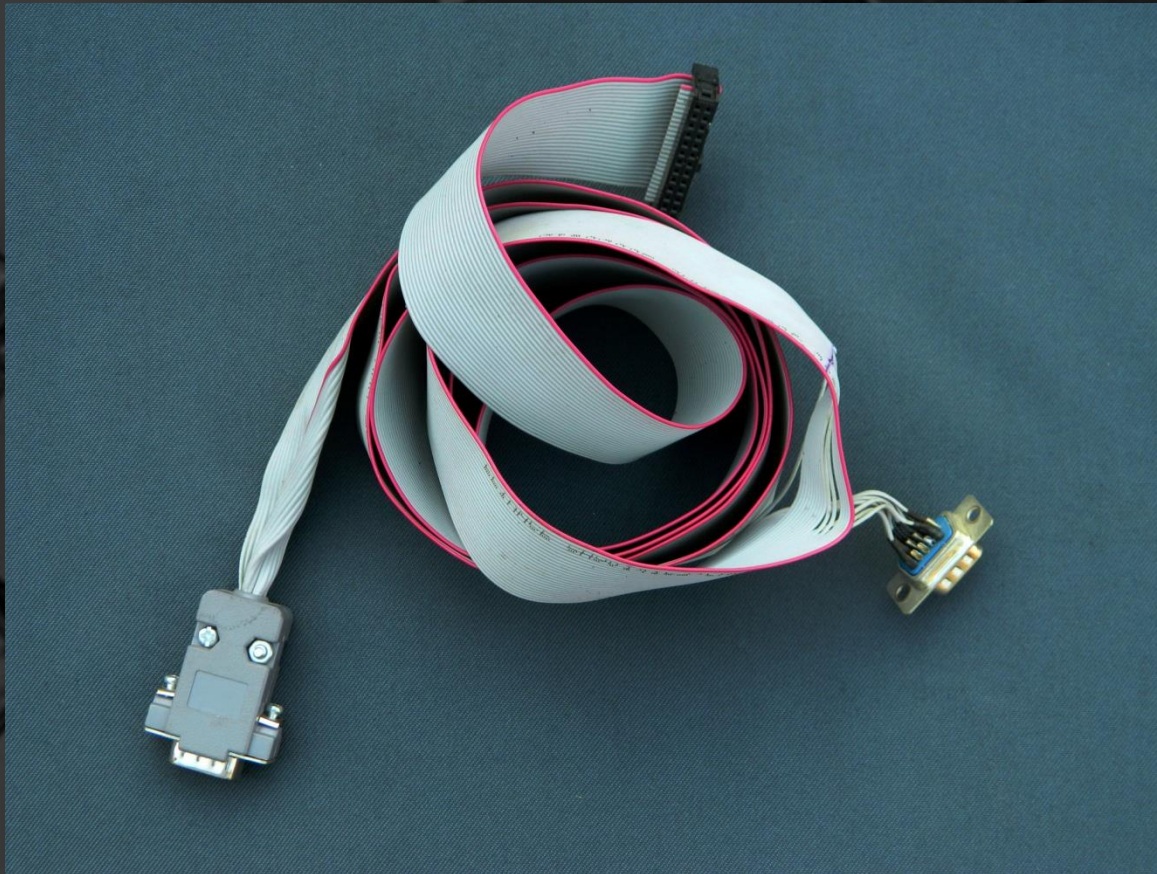
# PCB Assembly Sample 3



# PCB Assembly Sample # 4 (with Aluminum Enclosure)



# Ribbon Cable Harness





**This is a brand new invention from Michigan (USA).**

**It is a Carbon-Monoxide free Propane Gas Heater. ITTI Re-engineered this product and produced a working Prototype.**

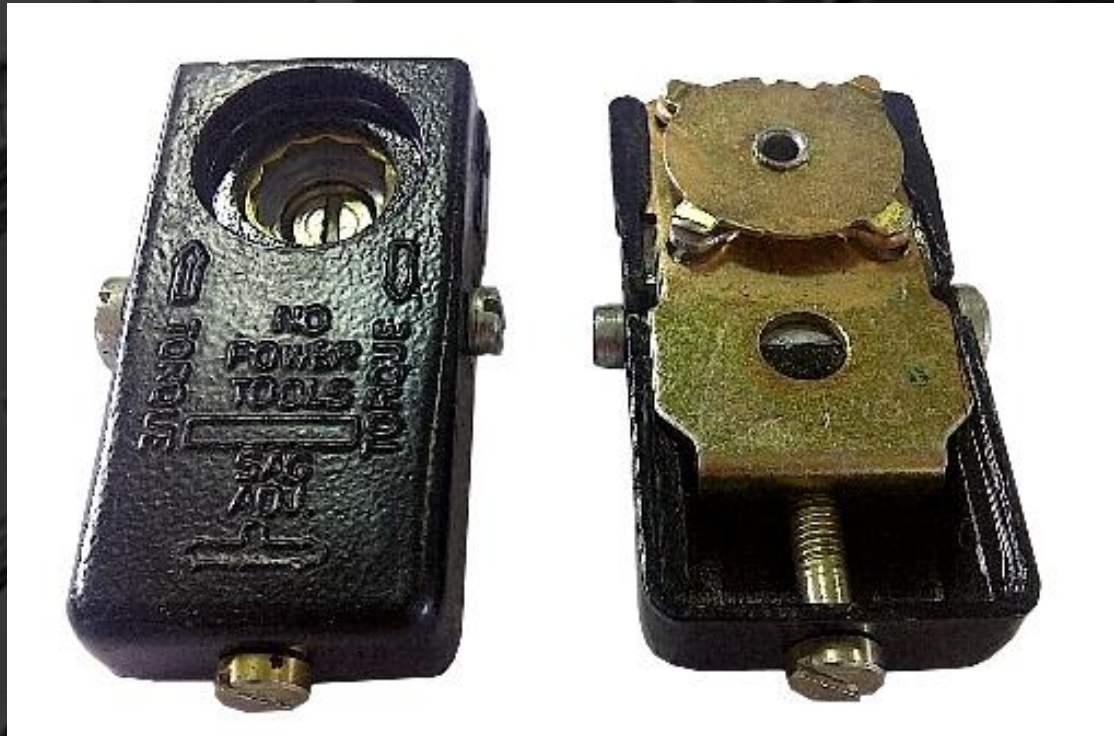


## Bringing New Inventions to Market



**HEATED WIPER BLADE (at Minus 40 Degree F)  
Brand New Invention from Manitoba, Canada**

# Torque Adjuster for Commercial Refrigeration

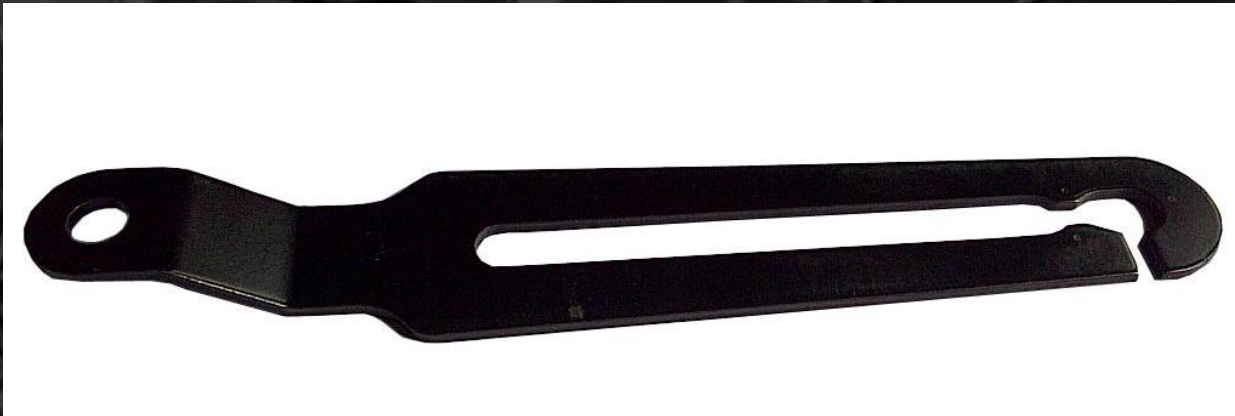


# Torque Tube Assembly for Commercial Refrigeration

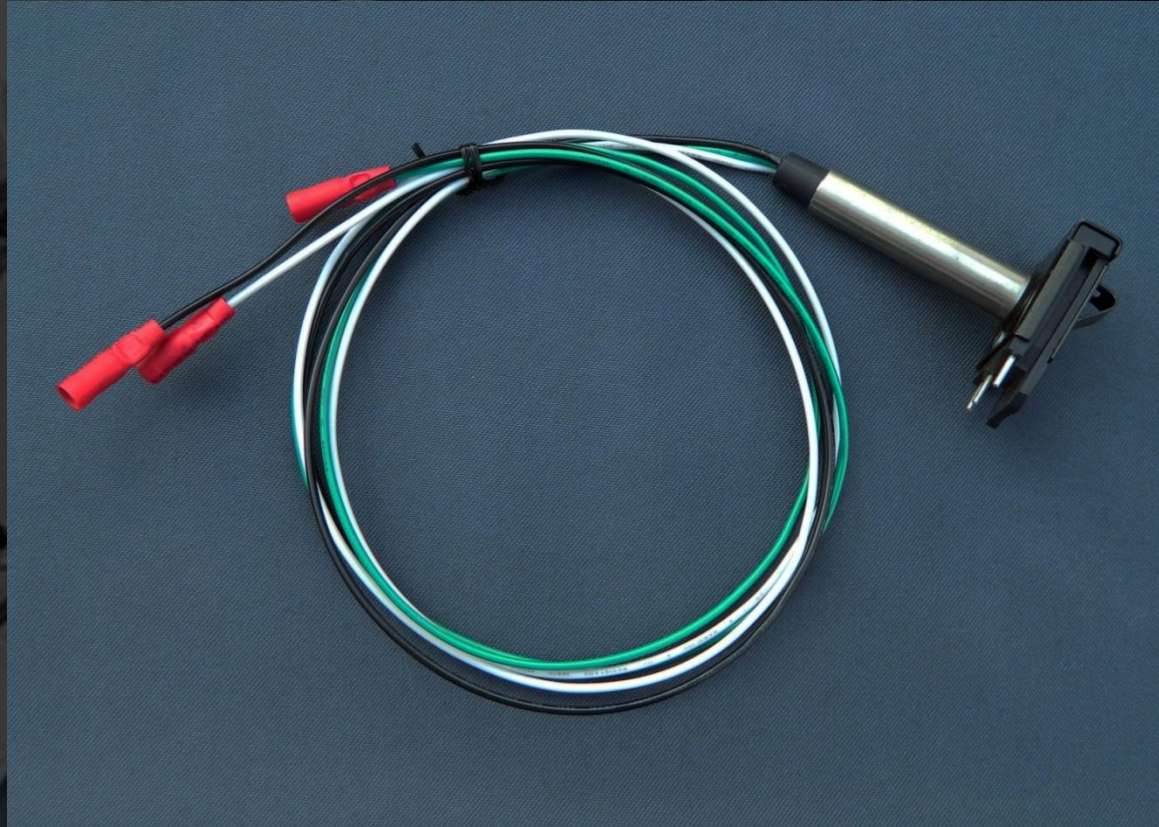


Gemtron Part No.	Description	Qty. Per Door
44QLASM1	Torque Rod Assembly	1 No.
Supplier : ITTI, LLC, USA		

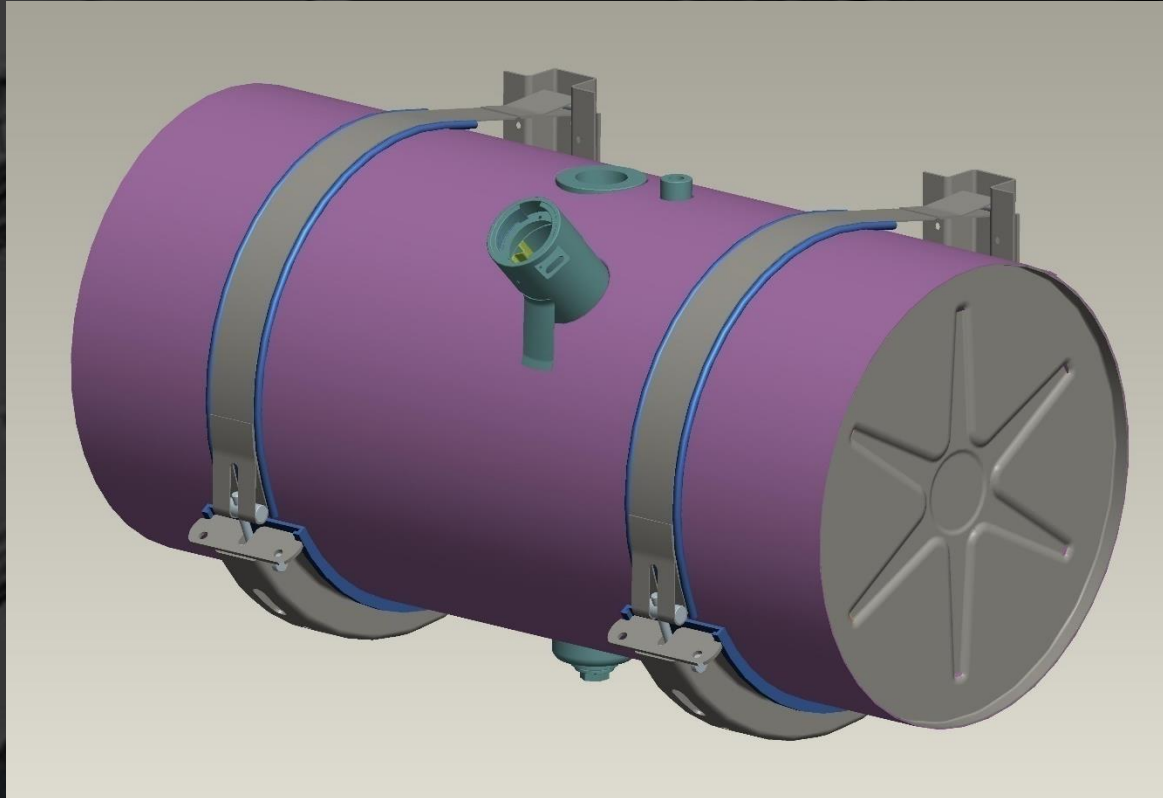
# Top Hold Open for Commercial Refrigeration



## 3-Pin Connector w/ Wire Harness for Commercial Refrigeration



# Fuel Tank



# Examples of Stamping, Sheet Metal and Assy Jobs



## Tipper Assembly in Indore, MP



**We make the Tipper NOT the Truck.**



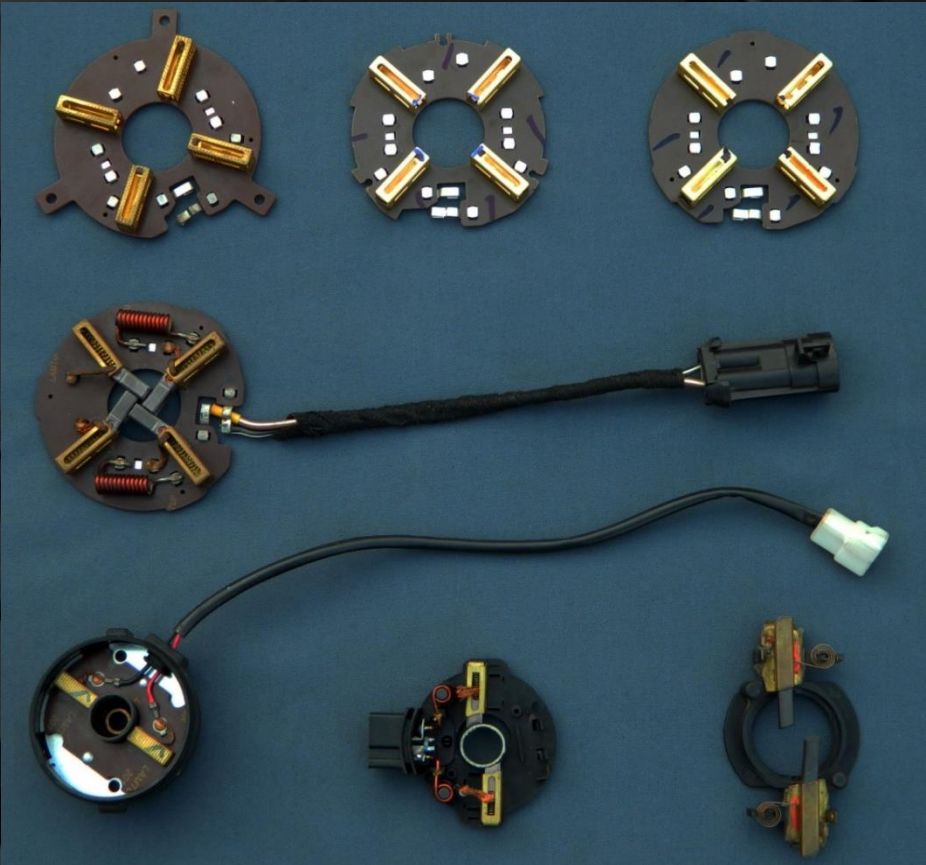
# CNC Parts



# Copper & Brass Terminals



# Brush Box Assemblies





## Electronic Assembly Facility in Bangalore



## SMT Line - Bangalore



## State-of-the-Art Pick 'N Place Machine - Bangalore



## Wire Harness and Connector Assembly - Bangalore



# Injection Molding, Mini Stampings and Heater Assembly, Bangalore





## Section of the Heater Assembly Shop - Bangalore





## Heater Assembly Team-Bangalore



# Sheet metal Fabrication and Heavy Duty Stamping Facility in Pithampur, MP



## Press Brake – Pithampur (MP)



## Tipper Fabrication Line – Pithampur (MP)



## Tipper fabrication Line 2 – Pithampur (MP)



# Heavy Duty fabrication Line – Pithampur (MP)



## Paint Shop Line 1 – Pithampur (MP)





## Paint Shop Line 2 – Pithampur (MP)



## Press line - Pune



## Pulley Spinning Machine # 1 - Pune



## Pulley Spinning Machine # 2 - Pune



# Tool Room - Pune



## QC Room - Pune





- ITTI established Injection Molding Division in 2009 for designing and manufacturing precision insert molded components and Injection molded thermoplastic parts.
- ITTI focuses on specialized Insert molded components for various wiring harness and sensor, as well as bringing product knowledge towards customer.
- ITTI offers one-stop-shop solution for your molding requirements. ITTI has the ability to manufacture and supply a range of injection molded components using a wide range of polymers.
- We have state of the art machinery, highly skilled work force and ISO 9001 Quality Management System with full participation by the entire management team including the CEO. The facility is housed in a sprawling 20000 Square foot building in India's Silicon Valley – the City of Bangalore. Needless to say, there is sufficient room to expand.



- **Equipment ranging from 20 tons to 225 tons of clamping pressure. All are computer controlled molding machines and give optimal efficiency in set-up, process control and monitoring. Our machines are designed for consistent quality and repeatability to minimize labor costs and rejection rates.**
- **Shot Capacity: From less than a gram up to 300 grams per cycle.**
- **Custom Colors**
- **Insert Molding: Which allows for other components (e.g. Metal parts, Molded Cables, etc.) to be completely integrated into plastic molded assembly.**
- **Over molding: This process uses different component materials and integrates them into a single part, much like what you might see on a toothbrush, where a soft elastomer material is molded onto a rigid handle.**



# German Made Arburg Universal Molding machine – Horizontal Mode



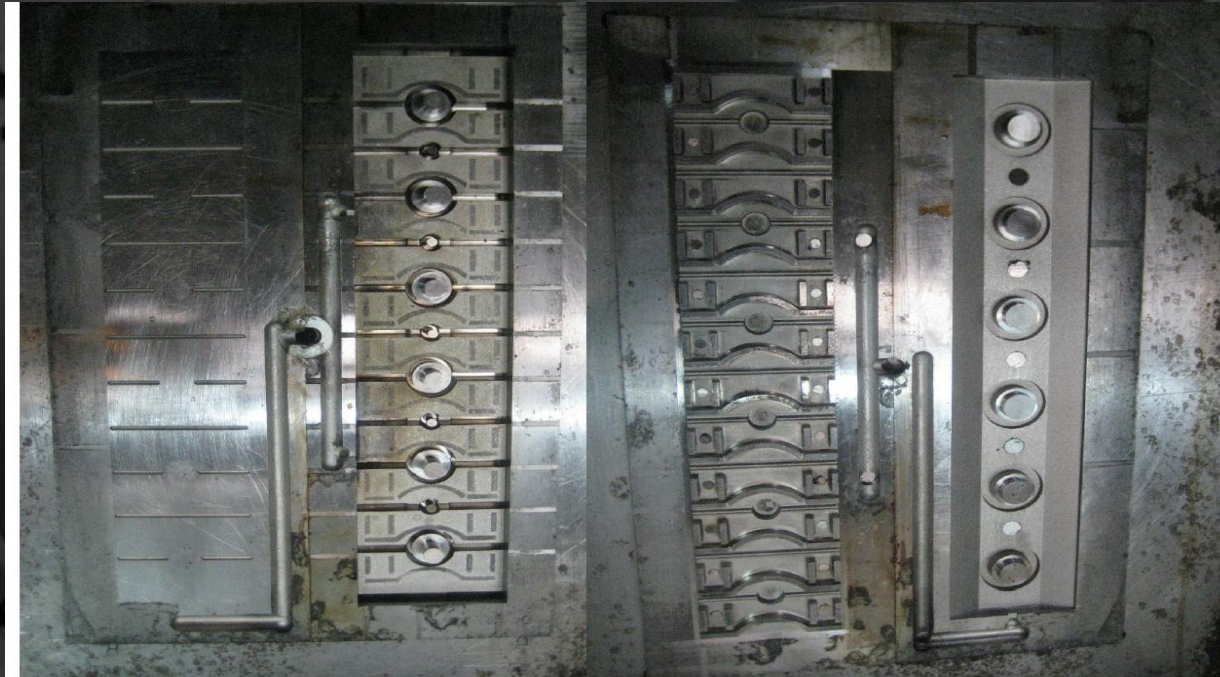
# German Made Arburg Universal Molding machine – Vertical Mode



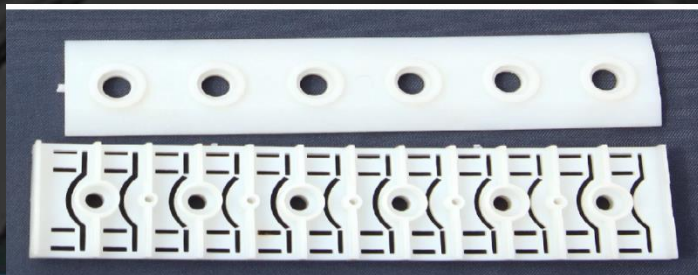


Machine model		370 S	370 S	370 S
EUROMAP size indication <sup>1)</sup>		500-100   600-100   700-100	500-170   600-170   700-170	600-290   700-290
<b>Clamping unit</b>				
Clamping force	max. kN	500   600   700	500   600   700	600   700
Closing force	max. kN	38	38	38
Opening force / increased	max. kN	24 / 160	24 / 160	24 / 160
Opening stroke	max. mm	400	400	400
Mould height	min. mm	200	200	200
Daylight	max. mm	600	600	600
Distance between tie bars	mm	370 x 370	370 x 370	370 x 370
Platen size (hor. x vert.)	mm	510 x 510	510 x 510	510 x 510
Weight of mov. mould half	max. kg	360	360	360
Ejector force	max. kN	30	30	30
Ejector stroke	max. mm	125	125	125
<b>Hydraulics, drive, general</b>				
Drive power of the hydraulic pump	kW	11   11   15	11   15   15	15   15
Dry cycle time for opening stroke <sup>4)</sup>	s-mm	2,1 (1,3)-259   2,0 (1,3)-259   1,4-259	2,1 (1,3)-259   1,9 (1,3)-259   1,4-259	1,9 (1,3)-259   1,4-259
Total connected load <sup>5)</sup>	kW	18,4   18,4   22,4	22,9   26,9   26,9	23,9   23,9
Colour: plastic coated, structure light grey / mint green / canary yellow				
<b>Control cabinet</b>				
Safety standard according to		DIN EN 60204	DIN EN 60204	DIN EN 60204
Socket combination (1 single phase, 1 three-phase)		1 x 16 A	1 x 16 A	1 x 16 A
<b>Injection unit</b>				
Screw diameter	mm	20 / 25 / 30	25 / 30 / 35	30 / 35 / 40
Effective screw length	L/D	25 / 20 / 16,7	24 / 20 / 17	23,3 / 20 / 17,5
Screw stroke	max. mm	100	120	150
Calculated injection volume	max. cm <sup>3</sup>	31 / 49 / 71	59 / 85 / 115	106 / 144 / 188
Shot weight	max. g PS	29 / 45 / 65	54 / 77 / 105	97 / 132 / 172
Material throughput <sup>6)</sup>	max. kg/h PS	5,5 / 8 / 9,5	10 / 13,5 / 16	17 / 20,5 / 24,5
	max. kg/h PA 6.62,8 / 4 / 4,9		5 / 7 / 8	8,5 / 10,5 / 12,5
Injection pressure <sup>7)</sup>	max. bar	2500 / 2000 / 1390	2500 / 2000 / 1470	2500 / 2000 / 1530
Injection flow <sup>8)</sup>	max. cm <sup>3</sup> /s	64 / 100 / 146   90 / 142 / 204   90 / 142 / 204	66 / 96 / 132   94 / 136 / 186   94 / 136 / 186	102 / 140 / 182
Injection flow with accumulator	max. cm <sup>3</sup> /s	172 / 268 / 388	216 / 312 / 424	316 / 430 / 562
Back pressure positive/negative	max. bar	350 / 200	350 / 200	350 / 200
Circumferential screw speed	max. m/min	28 / 35 / 42   39 / 49 / 59   39 / 49 / 59	35 / 42 / 49   49 / 59 / 69   49 / 59 / 69	46 / 54 / 62
Screw torque	max. Nm	120 / 150 / 180	210 / 250 / 290	320 / 380 / 430
Nozzle contact force	max. kN	50	50	60
Nozzle retraction stroke	max. mm	180	210	240
Installed cylinder heating power / heating zones	kW	4,3 / 4	8,8 / 4	5,8 / 4
Installed nozzle heating power	kW	0,6	0,6	0,6
Material hopper capacity	l	50	50	50
Horizontal injection position	max. mm	125	125	125
<b>Machine dimensions and weights of the basic machine</b>				
Oil capacity	l	135	135	135
Net weight	approx. kg	3200	3250	3300
Electrical connection <sup>9)</sup>	A	63	63   80   80	80

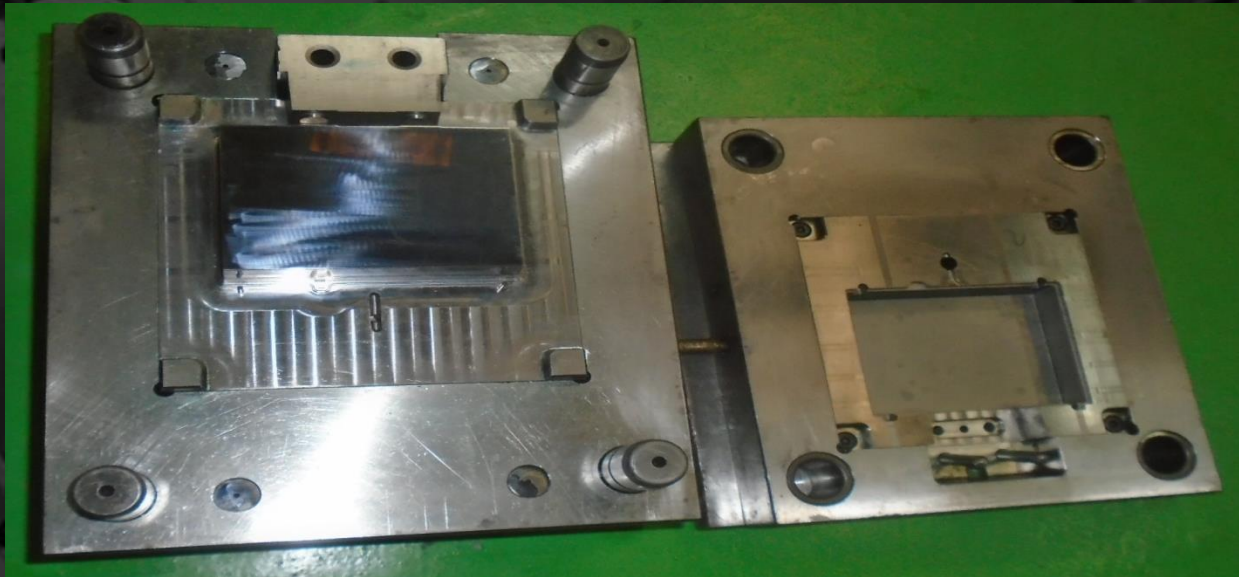
Components made by Nylon shot weight 93 Grams.



**Mold for B.D. Kit  
Assy.  
Tool Size: L 15.5" X  
W 11.5" X H 8"**

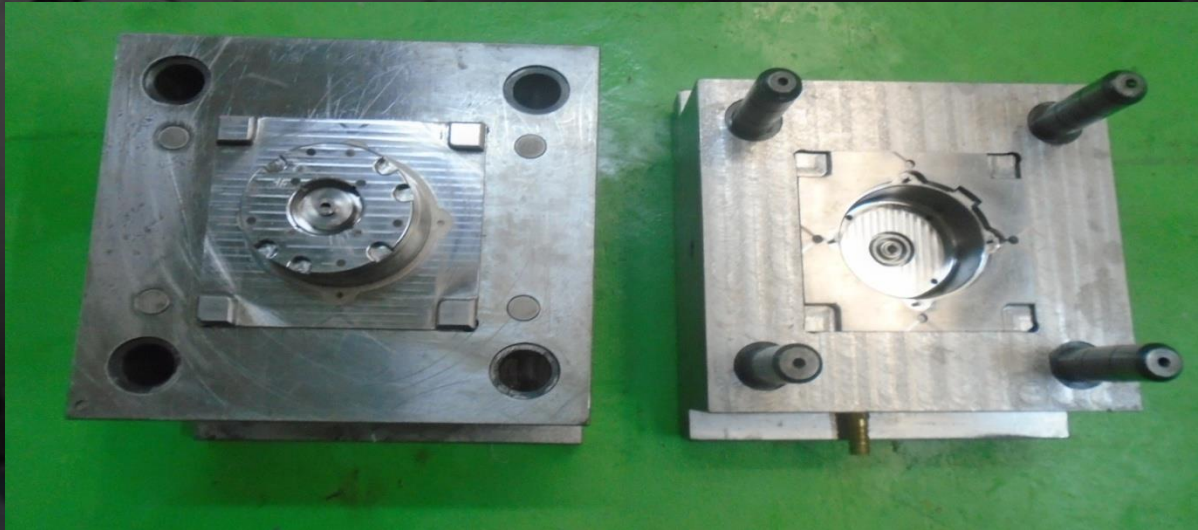


# Components made by PC shot weight 90 Grams.



**Above is the Mold for Molded Top cover 100 X 150 ( Clear ).  
Tool Size: L 14" X W 10" X H 11"**

# Components made by Noryl shot weight 98 Grams.



**Mold for End Cover**  
**Tool Size: L 11.5" X W 10" X H 12"**

Components made by Nylon with thin wall thickness shot weight 0.60 Grams.



Mold for Housing Terminal Brush Free Yellow  
Tool Size in Inches : L 11" X W 8" X H 9"



## Mobile Compact Dryer LMD 50/80 with Drying Bin



The LMD 50 and LMD 80 mobile compact dryers are used exclusively to generate dry air which is used to dry hygroscopic, free-flowing plastics granulates.  
The compact dryer operates between ..... 5°C and 35°C



# Vacuum loader HLB-E



The Vacuum loader HLB-E is exclusively used to feed plastics material in granular form to plastics processing machines, drying bins, or storage bins.

# Sprue Granulator



**The granulator granulates sprues from the injection molding process. This is used as a “by-the-machine” sprue granulator which enables the use of regrind immediately after its regeneration**



## Quality assurance

Quality assurance for our Molding Operations has three distinct phases in full compliance with ISO 9001 QMS (Latest Version).

- 1. Process Parameters are documented and operator training is monitored.**
- 2. Visual inspection is performed by our trained machine operator on every part that is made the moment it comes out of the machine using the parameters and critical dimensions set by customer.**
- 3. Parts are then randomly inspected once again by QA personnel at the machine once every hour and rejections are logged.**
- 4. Finally the acceptable parts are boxed, counted, and moved to our quality control department, where they are randomly inspected once again and the count is verified. The parts are then ready for shipment.**
- 5. Machine maintenance is done as per Preventative Maintenance Program.**



## ITTI Contact for Canada

*In case of questions, please contact:*

**Kamal Jain**

*VP – Business Development - Canada*

**ITTI, LLC**

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Ancaster, Ontario, Canada L9K 1G1

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Web: [www.ittillc.com](http://www.ittillc.com)



*In case of questions, please contact:*

**Ashok Thakkar (“Tucker”)**

*President and CEO*

**ITTI, LLC**

80, Old Sandhurst Landing, Johns Creek,  
GA 30022 (USA)

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