



Metals Industry Research  
& Development Center

# *Citizen's Charter*

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## THE METALS INDUSTRY RESEARCH & DEVELOPMENT CENTER

To develop and expand the metals industry of the Philippines, Republic Act No. 4724, dated 18 June 1966, established the Metals Industry Development center (MIDC). The Center was primarily tasked to work for close rapport between the government and the industry to foster the advancement of metals, engineering and allied industries in the country.

This was amended by Republic Act No. 6428, dated 31 May 1972, reorganizing and renaming the MIDC into the Metals Industry Research and Development Center (MIRDC), giving it corporate existence and enlarging its powers. The administration of the Center and the exercise of its corporate authority were vested exclusively in a Board of Trustees organized under this Act.

Later presidential issuances reflected the Center's change of thrust and direction. These were Executive Order No. 602, transferring the MIRDC from the National Science Development Board (now Department of Science and Technology) to then Ministry of Trade & Industry (now Department of Trade & Industry) for policy and program coordination and direction; Presidential Decree No. 1765, reorienting its thrust from research and development to direct assistance to the metals industry; and Executive Order No. 128, transferring the Center from the Department of Trade & Industry to the Department of Science & Technology as a separate and attached agency.

Finally, Executive Order No. 494 dated 6 December 1991 transformed the MIRDC into a regular government agency of the Department of Science and Technology. This was fully implemented on 27 May 1993.

## **VISION**

Center of excellence in science, technology and innovation for globally-competitive metals, engineering and allied industries by 2025.

## **MISSION**

To provide both government and private sectors in the metals and engineering industry with professional management and technical expertise on the training of engineers and technicians; information exchange; quality control and testing of metal products; research and development; technology transfer; and business economics advisory services.

## **STRATEGIC OBJECTIVES/THRUSTS**

**F**ocus on Customers

**I**ndustry Competitiveness

**R**esponsiveness to National Priorities

**S**ervice Improvement

**T**echnological Self-Reliance

## **CORE VALUES**

### **PROFESSIONALISM**

- We adhere to the highest ethical standards of performance
- We value our work and committed to perform to the best of our ability

### **RESPONSIVENESS**

- We spearhead implementation of projects that address the needs of the metals and engineering industry
- We find solutions to real-life problems through science, technology and innovation

### **INTEGRITY**

- We act responsibly, work honestly, and encourage transparency.

### **DYNAMISM**

- We perform our jobs with vigor and enthusiasm.
- We welcome change as an opportunity for growth and continual improvement.

### **EXCELLENCE**

- We adhere to world-class performance and continuous improvement in all we do
- We always do our best in every task/endeavor.

## **CORPORATE OBJECTIVES**

1. To attain a "very satisfactory" customer satisfaction rating through the continual improvement of our QEMS.
2. To deliver finished products and services according to mutually agreed terms and conditions and existing applicable statutory and regulatory requirements.
3. To ensure that customer complaints are attended to 10 working days upon receipt thereof.



## QUALITY AND ENVIRONMENTAL POLICY

We are committed to provide products and services to both the government and private sectors in the metals and engineering and allied industries with the highest standards of quality and reliability within our capabilities and resources and to continually improve the effectiveness of our Quality and Environmental Management Systems at all times in order to meet customer satisfaction.

We shall manage and control our activities in order to minimize impacts on the environment, prevent pollution and safeguard the health and safety of all employees, stakeholders, customers, suppliers, and the surrounding community.

To fulfill these commitments, the Center shall:

- Adopt a new and appropriate technologies and processes to continually improve the quality of our products and services and our environmental performance;
- Implement programs to enhance the competency and awareness of all personnel;
- Promote quality and environmental awareness and health and safety practices in all levels of the Center;
- Comply with all applicable laws and regulations in the country, including the requirements of DOST, customers, stakeholders, industry in which we subscribe to;
- Reduce dependence on the use of toxic and hazardous substances, including Ozone Depleting Substance (ODS);
- Implement an effective waste management and waste reduction program including where practicable, recycling and reusing of wastes; and
- Optimize the use of resources by continually identifying, implementing and reviewing practical measures to reduce resources usage while maintaining the quality of products and services;



## ISO 9001:2008 CERTIFIED

The Metals Industry Research and Development Center (MIRDC) is part of the growing number of public organizations that has a certified Quality Management System (QMS) based on ISO 9001:2008 standard.

It all started in 1998 when the MIRDC committed to the establishment and implementation of a QMS based on ISO 9002 in its Precision Casting Unit specifically its investment casting process that would ensure access to international markets of world-class investment casting products.

In 2001, the Center earned ISO 9001:1994 Certification for its Industrial Training and Staff Development Section (ITSDS) then later successfully upgraded to ISO 9001:2000 version in 2002, facilitating conformance of MIRDC's training programs to international requirements and standards.

In 2004, the MIRDC was awarded a Center-wide certification of its QMS under ISO 9001:2000 standard, the implementation of which resulted to a more effective and efficient operation of the Center.

On March 2, 2009, the Certification International Philippines, Incorporated awarded the QMS certification based on ISO 9001:2008 to the Center after the completion and reassessment of its QMS.

In 2012, the TÜV SÜD Asia Pacific TÜV SÜD Group granted the MIRDC the ISO 9001:2008 for the establishment and application of the Center's QMS for "Provision of Services on Research and Development of Equipment, Products, Process and Materials; Industrial Training, Technical Consultancy, Technology Transfer, and Technical Information Dissemination; Machining, Heat Treatment, Casting, Welding, and Fabrication of Metal Products."

On June 15, 2015, TÜV Rheinland Cert GmbH certified that the MIRDC fulfilled the requirements according to the ISO 9001:2008 with the scope "Provision of Service on Research and Development, Products, Process and Materials; Industrial Training, Technical Consultancy, Technology Transfer and Technical Information Dissemination; Machining, Surface Engineering, Casting, Welding and Fabrication of Metal Parts."

At present, after several years of QMS implementation, MIRDC remains steadfast and committed to continually provide added assurance to its customers as to the quality, reliability, credibility, and consistency in the delivery of MIRDC services.

## PQA Awardee

The Metals Industry Research and Development Center (MIRDC) has attained a number of milestones since its establishment in 1966. Mandated to provide professional management and technical expertise to both government and private sectors in the metals and engineering industries, the Center remains successful in making a difference as it engages in the training of engineers and technicians; information exchange; trade accreditation services; quality control and testing of metal products; research and development; and business advisory services.

The Philippine Quality Award (PQA) serves as the National Action Agenda for Productivity's strategy to promote quality and excellence in private and public sector organizations for it provides an internationally comparable framework and criteria for assessing organizational performance. Increasing globalization, a phenomenon that results to raised quality standards all over the world, calls for the continual intensification of productivity and quality improvement efforts in the country. The PQA, after being established through the issuance of EO No. 448 by former President Fidel V. Ramos and institutionalized through the signing of the Philippine Quality Award Act or RA No. 9013, is the highest level of national recognition for exemplary organizational performance, equivalent to the Malcolm Baldrige National Quality Award in the United States. The Award is a template for competitiveness based on the principle of Total Quality Management and is given to a role-model organization that delivers products and/or services and exhibits continuous improvement that is focused mainly on results – customer satisfaction, sharing of information, and benchmarking of best practices among organizations pursuing quality improvements.

The PQA experience is a fulfilling journey for the MIRDC. Upon the launching of the "Organizational Transformation of DOST Agencies Toward s Performance Excellence," a project of the Department of Science and Technology, with the DOST IX Regional Office, the Philippine Council for Industry, Energy, and Emerging Technology Research and Development (PCIEERD), and the MIRDC as the implementing agencies, the Center began taking definite steps toward the realization of its vision of achieving performance excellence.

Adopting the PQA framework led the Center to undertake relevant activities that put the experience close to the heart of every member of the MIRDC family. All the preparations for the site review/assessment brought out the best in all the employees and led the Center to yet another, and in fact its biggest milestone: the PQA Level 1 – Recognition for Commitment to Quality Management, a recognition that serves as acknowledgment of all the undying efforts and unconditional support of MIRDC officers and employees.

As a PQA recipient, the MIRDC will strive to pursue continued improvement. The Center will remain determined and focused in pushing performance excellence to the limits. With the commitment of the entire MIRDC family, these will easily be translated to the delivery of products and services of unquestionable quality. The Center will exhaust all means to breathe life to the M&E industries. We will always aim for excellence, for the greater service of the country.

## PERFORMANCE PLEDGE

We, the officials and employees of the Metals Industry Research and Development Center commit to serve you **BEST**:

**B** **UILDING A REPUTABLE ORGANIZATION**  
We uphold honesty, decency, and transparency in all our transactions.  
We commit to serve customers promptly, efficiently and reliably.

**E** **XCELLENCE IN ALL WE DO**  
We empower employees to take responsible actions and deliver excellent performance.  
We commit to continually improve organizational effectiveness through our quality and environmental management systems, comply with applicable statutory and regulatory requirements, and provide products and services with the highest standards of quality and reliability to meet customer satisfaction.

**S** **ERVICE BEFORE SELF**  
We put our professional duties to take precedence over personal desires and interests.  
We commit to serve customers professionally, responsibly and competently and abide by the Center's rules and regulations and the code of conduct and ethical standards for public officials and employees being a productive and law abiding citizen and public servant.

**T** **RUST AND RESPECT FOR EVERYONE**  
We value diversity and treat with justness and fairness every individual at work.  
We commit to serve customers of any group, sector, status, gender, culture, or religion with utmost courtesy, vigor and enthusiasm.

All these we pledge, because **YOU** deserve the **BEST!**

## FEEDBACK AND REDRESS MECHANISMS

**Please let us know how we have served you through the following:**

- Accomplish our Customer Satisfaction Feedback Form available in the Center
- Send your feedback through electronic message accessible at MIRDC website (<http://www.mirdc.dost.gov.ph>)
- Personally talk to the Executive Director of the Center



# MIRDC

# FRONTLINE SERVICES

**INDUSTRIAL TRAINING SERVICES**  
**Regular Training Program (Application)**



**Schedule of Availability of Service:**

Monday - Friday  
 8:00 AM - 5:00 PM  
 11:00 AM - 12:00 Noon (Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

Entry requirements depend on the kind of Training Program.

**Duration:** 15 minutes

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	At least five (5) days before the program schedule, submit filled out Seminar Reservation Form to Industrial Training Section (ITS)	Give Reservation Form to the Customer.  Provide Curriculum Design to the customer.	5 minutes	ITS Personnel		Reservation Form (ITS 021)
2	Within five (5) days before the conduct of the program, confirm reservation.	If unable to attend the upcoming seminar, instruct the Customer to look for a qualified replacement; If no replacement provided, cancel the reservation.	5 minutes	ITS Personnel		

		Ask Customer to submit letter requesting for cancellation.				
3	Pay the total training fee.	Process payment and issue an Official Receipt.	12 minutes	Financial Management Section	Please refer to <b>Appendix "D"</b> ( <i>Table of Training Fee</i> )	Billing Request Form (ITS 022)
4	Attend the Training Program.	Conduct the Training Program.		Resource Speaker/ Technical Assistance		Seminar Attendance Sheet (ITS 007)  Training Certificate
<b>END OF TRANSACTION</b>						



**INDUSTRIAL TRAINING SERVICES**  
**Package and Regional Training Program (Application)**



**Schedule of Availability of Service:**

Monday - Friday  
 8:00 AM - 5:00 PM  
 11:00 AM - 12:00 Noon (Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

None

**Duration:**

3 days - 4 days

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Supply information required on the Training Inquiry Form (TIF) or Submit Letter of Request (LER)	Give the Customer a Training Inquiry Form	5 minutes	ITS Personnel		Training Inquiry Form (TIF) (ITS 001)
2	Prepare facilities for training assessment, if necessary	Conduct Training Requirement Analysis, if necessary	1 day	ITS Personnel		Training Requirement Analysis (TRA) Form (ITS 023)
3	Wait for Training Program	Prepare Training Program	3 days after receipt	ITS Personnel, ITS		Training Cost

	Proposal	Proposal (TPP)  Review and approval of the Training Program Proposal (TPP)	of the Training Inquiry Form or Letter of Request if no Training Requirement Analysis is conducted; or 4 days after the conduct of the Training Requirement Analysis	Section Chief, Chief of TDD, Deputy Executive Director for Technical Services and Executive Director		Estimates Form (ITS 023)  Training Proposal Monitoring Sheet Form (ITS 056)
4	Submit the signed/approved Terms and Conditions at least 5 days before the program schedule	Receive the signed terms and conditions	2 minutes	ITS Personnel		
5	For Packaged Program, pay the total fee to the Industrial Training Section (ITS)	Process payment and issue Official Receipt	10 minutes	Financial Management Section	Refer to <b>Appendix "D"</b> (Table of Training Fee)	Billing Request Form (ITS 022)
6	Attend the Training Program	Conduct the Training Program	Per training program	Resource Speaker/ Technical Assistance		Attendance Sheet (ITS 007)  Training Certificate
<b>END OF TRANSACTION</b>						

## TECHNOLOGY ADVISORY AND BUSINESS DEVELOPMENT SERVICES

### Consultancy Services



#### Schedule of Availability of Service:

Monday - Friday

8:00 AM - 5:00 PM

11:00 AM - 12:00 Noon (Lunch Break)

#### Who May Avail of the Service?

Individuals, group of individuals, firms, companies and association related to metals and engineering industry, other government agencies and DOST Regional Offices and agencies.

#### What Are the Requirements?

None

#### Duration:

30 minutes - 14 hours

#### How to Avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Inquire or request for technical assistance/ consultancy services through letter, phone, fax, email or personally	Accomplish Technical Assistance Request Form and evaluate customer's inquiry/request	10 minutes	Technology Advisory and Business Development Section (TABDS) Personnel (Senior Science Research Specialist (SRS))		Technical Assistance Request Form (TARF) (TABDS 001)

2	Provide information based on required intervention	Provide on-the-spot expert advise fro short-term consultancy	15 minutes to 2 hours	TABDS Personnel (Senior SRS)		TARF (TABDS 001)
3	If site visit is required, confirm the schedule	Organize consultants / technical staff and prepare necessary documents	10 minutes - 1.5 hours	TABDS Personnel (Senior SRS)		Job Execution Order (JEO) Form (TABDS 002), Notice of Travel, Authority to travel, Itinerary of Travel
4	Prepare for consultancy visit	Implement technical consultancy	5 - 8 hours	TABDS Personnel (Senior SRS)		
5	Receive, verify and implement recommended course of action	Prepare and submit Post Travel Report (PTR) and accomplishment within 10 working days	4 hours	TABDS Personnel (Senior SRS)		
<b>END OF TRANSACTION</b>						

**TECHNOLOGY ADVISORY AND BUSINESS DEVELOPMENT SERVICES**  
**Technology Transfer Activities**



**Schedule of Availability of Service:**

Monday - Friday  
 8:00 AM - 5:00 PM; 11:00 AM - 12:00 Noon (Lunch Break)

**Who May Avail of the Service?**

Individuals, group of individuals, firms, companies and association related to metals and engineering industry, other government agencies and DOST Regional Offices and agencies.

**What Are the Requirements?**

1. Letter of Request
2. Terms and Conditions

**Duration:**

3 hours & 15 minutes

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Submit Letter of Request with the Technology Business Advisory Section specifying therein the technology	Evaluate customer's inquiry/request	15 minutes	TABDS Personnel (Senior SRS)		
2	Provide the required information	Conduct technology discussion	1 hour	TABDS Personnel (Senior SRS)		

3		Conduct technology demonstration if necessary	2 hours	TABDS Personnel (Senior SRS)		
4	Decide whether or not to adopt the technology	Provide assistance in the establishment of facility, if required	Per requirement	TABDS Personnel (Senior SRS)		
<b>END OF TRANSACTION</b>						

## ANALYSIS AND TESTING SERVICES

### In-House Calibration & Testing Services



#### Schedule of Availability of Service:

8:00 AM - 5:00 PM

11:00 AM - 12:00 Noon (Lunch Break) [Not applicable to receiving and releasing service areas].

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

1. Instruments and Test items for calibration/testing
2. Filled-out Request for Work Form (Refer to additional requirements as provided in the RFW).

**Note:** Repair of instruments and machining of samples are not included.

#### Duration:

7 to 14 working days (from the date of receipt of sample)

#### How to avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Proceed to appropriate Analysis and Testing Division (ATD) Laboratory (Chemical, Corrosion, NDT, Mechanical, Instrumentation, Metrology)	Concerned laboratory staff fill-out Request for Work Form (RFW), inspect / evaluate samples or test items submitted by customer. Affix identification tag on	10 minutes or more depending on the quantity and complexity of test requested	Analysis and Testing Division (ATD) Personnel (Laboratory Personnel)		Request for Work Form (RFW)  (PM-ATD-04-04-F1 to PM-ATD-04-04-08)  Note: RFW also serves

		the sample submitted. Assign Job Order Number. Sign the RFW.				as "Claim Stub" when claiming sample and test / calibration certificates.
2	Review carefully the contents of the RFW.  Ensure that requirements for the requested service are included.  Sign the RFW.	Inform the customer of the scope of work, due date, necessary sample preparation, cost and payment requirements	1 minute	ATD Personnel (Concerned Laboratory Staff)		
3	Proceed to Cashier. Present RFW and pay the assessed amount (i.e. deposit, down payment, full payment).  <i>Note: For calibration jobs, no down payment is required.</i>	Process Payment and issue an Official Receipt.	10 minutes	Financial Management Section Personnel	Please refer to <b>Appendix "A"</b> , Schedule of Calibration and Testing Fees	Official Receipt (OR) (Accountable Form No. 51-C)
4	Proceed to ATD and present Request for Work (Official Receipt, if any) and Visitor's Slip	Accomplish and sign Job Order Form provided by Analysis and Testing Division.  Sign and accomplish Visitor's Slip	5 minutes	ATD Personnel		Job Order Form (WI-ATD-04-05-F1)  Visitor's Slip
5	Customer returns to MIRDC					



	as per stated "Estimated Due Date" in the Request for Work.					
6		<p>Conduct of sample preparation, testing and calibration, submission of draft report.</p> <p>Typing, checking, signing, and sealing of Test / Calibration Certificates.</p>	<p>7 to 14 working days depending on the quantity and complexity of test / calibration performed.</p> <p>Note: Duration may be extended for sample / instruments requiring longer calibration / test lead time, submission of necessary accessories, and sample preparation involving other MIRDC facilities.</p>	ATD Personnel (Concerned Laboratory Staff)		(for calibration service, Calibration Sticker)
7	Customer returns to ATD to claim test and/or calibration certificates.	Evaluate status of transaction	1 minute	ATD personnel		
8	Proceed to Financial	Process Payment and	10 minutes	Financial	Please refer	Official Receipt (OR)

	Management Section if advised by ATD.  Present RFW and OR, if there be any.  Pay amount due.	issue an OR.  If required, issue Invoice.		Management Section Personnel	to <b>Appendix "A"</b> , Schedule of Calibration & Testing Fees	Accountable Form No. 51-C  Invoice (FAD-002)
9	Proceed to ATD and present RFW, OR, Visitor's Slip, and Invoice, if any to ATD	Release Test or Calibration Certificates.  For items to be released, accomplish Property Exit Slip.  Sign Visitor's Slip	5 minutes or more depending on the number of test items released.	A TD Personnel		Property Exit Slip (PM-ATD- 05-06-F1)  Visitor's Slip
10	Present Visitor's Slip and Property Exit Slip to MIRDC Guard at Main Gate	Inspect released items/samples.  Inspect hand carry items and vehicle trunk, if applicable.	1 minute	MIRDC Security Guard assigned at main gate		
<b>END OF TRANSACTION</b>						

**Note:** Visitor's Slip and Property Exit Slip are collected by the MIRDC Guard at main gate.

## ANALYSIS AND TESTING SERVICES

### In-Plant Calibration & Testing Services



#### Schedule of Availability of Service:

8:00 AM - 5:00 PM

11:00 AM - 12:00 Noon (Lunch Break) [Not applicable to receiving and releasing service areas].

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

1. Instruments and Test items for calibration/testing
2. Filled-out Request for Work Form (Refer to additional requirements as provided in the RFW).

**Note:** Repair of instruments and machining of samples are not included.

#### Duration:

7 to 10 working days (after conduct of field job)

#### How to avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Proceed to appropriate Analysis and Testing Division (ATD) Laboratory (Chemical, Corrosion, Mechanical, NDT, Instrumentation, and Metrology.	Concerned laboratory staff fill-out Request for Work Form (RFW) as per quotation. Evaluate samples or test items for field job. Assign Job Order Number.	10 minutes or more depending on the quantity and complexity of test requested	Concerned Laboratory Personnel		Request for Work Form (RFW)  (PM-ATD-04-04-F1 to PM-ATD-04-04-F8)

	Present MIRDC Quotation.	Schedule the date of in-plant  Sign the RFW.				<b>Note:</b> RFW also serves as "claim stub" when claiming sample and test / calibration certificates.
2	Review carefully the contents of the RFW.  Ensure that requirements for the requested service are included.  Sign the RFW.	Inform the customer of the scope of work, scheduled date of in-plant, necessary sample preparation, cost, payment requirements, arrangement of vehicle for transport, and accommodation, if any.	1 minute	Concerned Laboratory Staff		
3	Proceed to Financial Management Section.  Present RFW and pay the assessed amount.	Process Payment and issue an Official Receipt.	10 minutes	Financial Management Section Personnel	Please refer to <b>Appendix "A"</b> , Schedule of Calibration and Testing Fees.  <b>Note:</b> In-plant calibration jobs require only at least 50% down payment.	Official Receipt (OR) (Accountable Form No. 51-C)

4	Proceed to ATD and Present Request for Work, Official Receipt and Visitor's Slip	Accomplish and sign Job Order Form provided by ATD.  Sign and accomplish Visitor's Slip	5 minutes	ATD Personnel		Job Order Form (WI-ATD-04-05-F1)  Visitor's Slip
5	Customer returns to MIRDC as per Schedule of In-Plant in the Request for Work.  Provide transport for MIRDC personnel.	Conduct of field testing/calibration.  For in-plant calibration, affix calibration sticker.	Within the scheduled date	Concerned Laboratory Staff		(For in-plant calibration, Calibration Sticker)
6		Process draft report.  Conducts typing, checking, signing, and sealing of Test/Calibration Certificates.	7 to 10 working days after conduct of in-plant job.  Note: Duration may be extended depending on the quantity and complexity of test requested.	ATD Personnel (Concerned Laboratory Staff)		(For calibration service, Calibration Sticker)
7	Customer returns to ATD to claim test and/or calibration certificates.  Present RFW and OR, if any.	Evaluate status of transaction	1 minute	ATD personnel		

8	Proceed to Financial Management Section if advised by ATD.  Present RFW and OR, if there be any. Pay the assessed amount.	Process Payment and issue an OR.  If required, issue Invoice.	10 minutes	ATD Personnel  Financial Management Section Personnel	Please refer to <b>Appendix "A"</b> , Schedule of Calibration & Testing Fees	Accountable Form No. 51-C Official Receipt (O.R.)
9	Present RFW, OR, Visitor's Slip, and Invoice, if any to ATD	Release Test or Calibration Certificates.  Sign Visitor's Slip	5 minutes	A TD Personnel		Accountable Form No. 51-C Official Receipt (O.R.)  Visitor's Slip RFW
10	Present Visitor's Slip to MIRDC Guard at Main Gate	Inspect hand carry items and vehicle trunk, if applicable.	1 minute	MIRDC Security Guard assigned at main gate		
<b>END OF TRANSACTION</b>						

**Note:** Visitor's Slip and Property Exit Slip are collected by the MIRDC Guard at main gate.



## RESEARCH AND DEVELOPMENT SERVICES

### Physical Metallurgy Testing Services

#### Schedule of Availability of Service:

8:00 AM - 5:00 PM

11:00 AM - 12:00 Noon (Lunch Break) [Not applicable to receiving and releasing service areas].

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

1. Sample or test items for testing
2. Filled-out Request for Work Form (Refer to additional requirements as provided in the RFW).

#### Duration:

7 to 14 working days (from the date of receipt of sample)

#### How to avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Proceed to Physical Metallurgy Laboratory (PML)	Concerned laboratory staff attends to customer inquiry, inspect / evaluate samples or test items submitted by customer, fill-out Request for Work Form in 4 copies, assign Job Order Number and affix identification tag on the sample submitted.	10 minutes or more depending on the quantity and complexity of test requested	Materials and Process Research Division (MPRD) Personnel (Laboratory Personnel)		Request for Work (RFW) Form (MPRD 004)  <i>Note: RFW also serves as "claim stub" when claiming sample and test certificates</i>

2	Ensure that requirements for the requested service are included.  Sign the RFW.	Inform the customer of the scope of work, due date, follow-ups, and necessary sample preparation, and cost and payment requirements.  Sign RFW once customer conforms.	1 minute	MPRD Personnel (Concerned Laboratory Staff)		
3	Proceed to Financial Management Section. Present RFW and pay the full amount.	Process payment, issue an Official Receipt and stamp "PAID" on all copies of RFW.  Retain Accounting copy of RFW	10 minutes	Financial Management Section Personnel	Please refer to <b>Appendix "A"</b> , Schedule of Calibration and Testing Fees	Official Receipt (O.R.) (Accountable Form No. 51-C)
4	Proceed to PML and present RFW and Official Receipt	Retain 2 copies of the RFW: Laboratory copy and Security /Delivery copy.  Record the OR information (OR #, date, amount)	1 minute	MPRD Personnel (Laboratory Personnel)		RFW Form (MPRD 004)  OR (Accountable Form No. 51-C)
5		Conduct of sample preparation, testing and calibration, if necessary.  Typing, checking, signing, and sealing of Test Reports/ Certificates. (Test Reports/Certificates : 1) official copy, and 2) laboratory copy)	7 to 14 working days depending on the quantity and complexity of test performed.  Note: Duration may be extended for sample/item requiring longer test lead time, submission of necessary accessories, and sample	MPRD Personnel (Concerned Laboratory Staff)		



			preparation involving other MIRDC facilities.			
6		Submit Official Copy of Test Reports/Certificates to MPRD Division Head Office (DHO).  Sign the Laboratory copy as proof of endorsement.		MPRD Personnel (Concerned Laboratory Staff)  MPRD DHO Personnel		
7	Customer returns to PML to claim sample and Test Report/ Certificate.					
9	Proceed to PML and present customer's copy of RFW, OR to retrieve sample/ item, if applicable.  Proceed to MPRD DHO and present customer's copy of RFW to claim Official copy of Test Report/ Certificate	Release the sample/item, if applicable, to customer and furnish him the Security/ Delivery copy of the RFW.  Release Test Certificates and sign Visitor's slip.	5 minutes or more depending on the number of test items released.	MPRD Personnel  MPRD DHO Personnel		RFW (MPRD 004)  Test Reports/ Certificates  Visitor's slip
10	Present Visitor's Slip and Security/ Delivery copy RFW to MIRDC Guard at Main Gate	Inspect released items/samples, if applicable.  Inspect hand carry items and vehicle trunk, if applicable.	1 minute	MIRDC Security Guard assigned at main gate		RFW (MPRD 004)  Visitor's slip
<b>END OF TRANSACTION</b>						

**RESEARCH AND DEVELOPMENT SERVICES**  
**Material Development Program**  
**Acceptance of Joint Research Project**



**Schedule of Availability of Service:**

Monday - Friday  
 7:00 AM - 5:00 PM (No Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

None

**Duration:**

5 days to 10 days

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Inquire personally at the Materials and Process Research Division and fill-out corresponding Form	Attend to Customer Inquiry	30 minutes to 1 hour	Materials & Process Research Division (MPRD) Personnel		Quotation Request Form (MPRD 001)
2		Prepare cost estimate	1-2 days	MPRD Personnel (SRS II)		
3		Prepare Memorandum of Agreement (MOA)	3 - 5 days	MPRD Personnel		Quotation Form (MIRDC 001)

4		Review, approve and notarize the MOA	5 - 10 days	Contracting Parties (MIRDC and CUSTOMER)		
5	Fill-out Project Order Form	Review and sign Project Order (PO) Form	5 minutes	MPRD Personnel		Project Order (PO) Form (MPRD 042)
6		Implement Research and Development Project	Depending on the Project scope and Duration	MPRD Personnel (Project Leader)		
7		Inform customer on the completed project	5 minutes	MPRD Personnel		
8		Prepare Delivery Receipt	3 minutes	MPRD Personnel		Delivery Receipt (DR) (MIRDC 002)
9	Get the Delivery Receipt from MPRD	Stamp "RELEASED" in the Delivery Receipt indicating the printed name and signature of the personnel who released the item.	2 minutes	MPRD Personnel		DR (MIRDC 002)
10	Pick-up Research and Development Project Output	Issue/release the Research and Development Project Output	10 minutes	MPRD Personnel		
11	Present Delivery Receipt and Property Entry/Exit Slip to the security guard at the gate	If material was supplied by customer for the preparation of the project, prepare a Property Entry/Exit slip	2 minutes	Security Guard MPRD Personnel		DR (MIRDC 002) Property Entry/ Exit Slip (MIRDC 003)
<b>END OF TRANSACTION</b>						

**RESEARCH AND DEVELOPMENT SERVICES**  
**Material Development Program**  
**Acceptance of Contract Research Project**



**Schedule of Availability of Service:**

Monday - Friday  
 7:00 AM - 5:00 PM (No Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

None

**Duration:**

1 day to 2 days

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEEES	FORMS
1	Inquire personally at the Materials and Process Research Division (MPRD) and fill-out corresponding Form	Attend to Customer Inquiry	30 minutes to 1 hour	MPRD Personnel		Quotation Request Form (MPRD 001)
2		Prepare cost estimate	2 days	MPRD Personnel		

3		Prepare quotation and forward to signatories for their signature	2 days	MPRD Personnel		Quotation Form (MIRDC 001)
4		Send approved quotation to customer thru fax message or mail	5 minutes	MPRD Personnel		
5	Fill-out Project Order Form	Review and sign Project Order (PO) Form	5 minutes	MPRD Personnel		Project Order (PO) Form (MPRD 042)
		Approve Project Execution Order	1 day	Chief, MPRD		
6	For private companies, pay the required down payment.	Process payment and issue an Official Receipt or receive Certificate of Availability of Funds and Purchase Order	3 - 10 minutes	Financial Management Section Personnel	30% of the total Project cost	Project Order (PO) Form (MPRD 042)
	For government agencies, submit Certificate of Availability of Funds and a Purchase Order.					
7		Implement Research and Development Project	Depending on the Project scope and duration	MPRD Personnel (Project Team)		
8		Inform customer on the completed project	5 minutes	MPRD Personnel		
9		Prepare Delivery Receipt	3 minutes	MPRD Personnel		Delivery Receipt (DR) (MIRDC 002)
10	Get the Delivery Receipt from MPRD and pay the remaining balance	Process payment and issue Official Receipt	10 minutes	MPRD Personnel		DR (MIRDC 002)
		Stamp "RELEASED" in the		Financial Management		Official Receipt (OR) (Accountable)

		Delivery Receipt indicating the printed name and signature of the personnel who released the item.		Section Personnel		Form No. 51-C)
11	Get the Research and Development Project Output	Issue/release the Research and Development Project Output	10 minutes	MPRD Personnel		
12	Present Delivery Receipt and Property Entry/Exit Slip to the security guard in the gate	If material/s was supplied by customer for the preparation of the project, prepare a Property Entry/Exit Slip	2 minutes	Security Guard MPRD Personnel		Property Entry/Exit Slip (MIRDC 003)
<b>END OF TRANSACTION</b>						

**Note:** For Physical Metallurgy Contract Service, the photocopy of the PO Form (MPRD 042) will serve as Delivery Receipt and/or Property Entry/Exit Slip of Customer; Physical Metallurgy Laboratory and Financial Management Section also may retain a photocopy of PO for record purposes.

## RESEARCH AND DEVELOPMENT SERVICES

### Equipment Development Program

Acceptance of Joint Research Project



#### Schedule of Availability of Service:

Monday - Friday

7:00 AM - 5:00 PM (No Lunch Break)

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

None

#### Duration:

5 days to 10 days

#### How to Avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Inquire personally at the Prototyping Division and fill-out corresponding Form	Attend to Customer Inquiry	30 minutes to 1 hour	Prototyping Division (PD) Personnel		Assistance Request Form (PD 006)
2		Prepare cost estimate	1-8 days	PD Personnel		
3		Prepare Memorandum of Agreement (MOA)	2 -8 days	PD Personnel		Quotation Form (MIRDC 001)
4		Review, approve and	5 - 8 days	Contracting Parties		

		notarize the MOA		(MIRDC and CUSTOMER)		
5	Fill-out and sign Project Order Form	Review and sign Project Order (PO) Form  Approve Project Execution Order	4 hours	PD Personnel  Chief, PD		Project Order (PO) Form (PD 007)
6		Implement Research and Development Project	Depending on the Project scope and duration	PD Personnel (Project Team)		
7		Inform customer on the completed project	5 minutes	PD Personnel		
8		Prepare Delivery Receipt	3 minutes	PD Personnel		Delivery Receipt (DR) (MIRDC 002)
9	Get the Delivery Receipt from PD	Stamp "RELEASED" in the Delivery Receipt indicating the printed name and signature of the personnel who released the item.	2 minutes	PD Personnel		DR (MIRDC 002)
10	Pick-up Research and Development Project Output	Issue/release the Research and Development Project Output	30 minutes to 1 hour	PD Personnel		
11	Present Delivery Receipt and Property Entry/Exit Slip to the security guard in the gate	If material was supplied by customer for the preparation of the project, prepare a Property Entry/Exit Slip	2 minutes	Security Guard  PD Personnel		DR (MIRDC 002)  Property Entry/Exit Slip (MIRDC 003)
<b>END OF TRANSACTION</b>						



## RESEARCH AND DEVELOPMENT SERVICES

### Equipment Development Program

#### Acceptance of Contract Research Project



#### Schedule of Availability of Service:

Monday - Friday

7:00 AM - 5:00 PM (No Lunch Break)

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

None

#### Duration:

1 day to 2 days

#### How to Avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Inquire personally at the Prototyping Division and Fill-out corresponding Form	Attend to Customer Inquiry	30 minutes to 1 hour	Prototyping Division (PD) Personnel		Assistance Request Form (PD 006 Rev.)
2		Prepare cost estimate	1 day to 8 days	PD Personnel		
3		Prepare quotation and	2 days to 8 days	PD Personnel		Quotation Form

		forward to signatories for their signature				(MIRDC 001)
4		Send approved quotation to customer thru fax message or mail	5 minutes	PD Personnel		Quotation Form (MIRDC 001)
5	Fill-out Project Order Form	Review and sign Project Order (PO) Form	5 minutes	PD Personnel		Project Order (PO) Form (PD 007)
		Approve Project Execution Order	1 day	Chief, PD		
6	For private companies, pay the required down payment.	Process payment and issue an Official Receipt or receive Certificate of Availability of Funds and Purchase Order	10 minutes	Financial Management Section Personnel	30% of the total project cost	PO Form (PD 007)
	For government agencies, submit Certificate of Availability of Funds and a PO.					
7		Implement Research and Development Project	Depending on the Project scope and Duration	PD Personnel (Project Team)		
8		Inform customer on the completed project	5 minutes	PD Personnel		
9		Prepare Delivery Receipt	3 minutes	PD Personnel		Delivery Receipt (DR) (MIRDC 002)
10	Get the Delivery Receipt from PD and pay the remaining balance	Process payment and issue Official Receipt	10 minutes	PD Personnel		DR (MIRDC 002)
		Stamp "RELEASED" in the Delivery Receipt indicating the printed name and signature of		Financial Management Section Personnel		Official Receipt (Accountable Form No. 51-C)

		the personnel who released the item.				
11	Get the Research and Development Project Output	Issue/release the Research and Development Project Output	10 minutes	PD Personnel		
12	Present Delivery Receipt and Property Entry/Exit Slip to the security guard at the gate	If material/s was supplied by customer for the preparation of the project, prepare a Property Entry/Exit Slip	2 minutes	Security Guard PD Personnel		Property Entry/Exit Slip (MIRDC 003)
<b>END OF TRANSACTION</b>						

## RESEARCH AND DEVELOPMENT SERVICES

### Metal Casting Process



#### Schedule of Availability of Service:

Monday - Friday

7:00 AM - 5:00 PM (No Lunch Break)

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

Sample/Pattern/Drawing

#### Duration:

1 day to 2 days

#### How to Avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Inquire personally at the Materials and Process Research Division and fill-out corresponding Form	Discuss/clarify the project requirements with the Customer	4 hours	Materials and Process Research Division (MPRD) Personnel		Quotation Request Form (MPRD 001)
2	Submit/present pertinent documents (drawing, product specifications/ requirements, etc.) and or sample pattern	Fill-out Job Order Form and prepare Property Entry/Exit Slip, if necessary	15 minutes	MPRD Personnel		Job Order Form (MPRD 002)  Property

						Entry/ Exit Slip (MIRDC 003)
3		Prepare Memorandum of Agreement (MOA)	10 days	MPRD Personnel		
4	Review the contents of the MOA	Finalize the MOA	5 days	Contracting Parties (MIRDC and Customer)		MOA
5	Fill-out Project Order (PO) Form	Review and sign PO Form Approve Project Execution Order	4 hours	MPRD Personnel Chief, MPRD		Project Order (PO) Form (MPRD 042)
6	Proceed to the Financial Management Section and pay the required down payment.  For private companies, pay the required down payment;  For government agencies, in lieu of down payment, submit Certificate of Availability of Funds and PO.	Process the payment and issue an Official Receipt  Receive Certificate of Availability of Funds and Purchase Order	10 minutes	Financial Management Section Personnel		PO Form (MPRD 042)
7		Implement Research and Development Project	Depending on the Project scope and duration	MPRD Personnel (Project Team)		
8		Inform customer on the completed project	5 minutes	MPRD Personnel		
9		Prepare Delivery Receipt (DR)	3 minutes	MPRD Personnel		Delivery Receipt (DR) (MIRDC 002)

10	Secure the DR from the MPRD and pay the remaining balance at the Financial Management Section	Issue DR  Process Payment and issue Official Receipt	10 minutes	MPRD Personnel  Financial Management Section Personnel	as assessed based on <b>Appendix "B"</b> (Metal Casting Technology Machine Rates)	DR (MIRDC 002)  Official Receipt (OR) (Accountable Form No. 51-C)
11	Proceed to MPRD and present the OR and DR.	Require the customer to present the OR and DR.  Stamp "RELEASED" in the DR indicating the printed name and signature of the personnel releasing the item	10 minutes	MPRD Personnel		DR (MIRDC 002)  OR (Accountable Form No. 51-C)
12	Pick-up the Research and Development project output	Issue/release the Research and Development Project Output	30 minutes	MPRD Personnel		
13	Present the DR to the Security Guard on duty at the main gate, including the Property Entry/Exit Slip, if necessary.	Issue Property Entry/Exit Slip  Check DR and Property Entry/Exit Slip	10 minutes	Security Guard  MPRD Personnel		Property Entry/Exit Slip (MIRDC 003)
<b>END OF TRANSACTION</b>						

## RESEARCH AND DEVELOPMENT SERVICES

### Acceptance of Heat Treatment Service



#### Schedule of Availability of Service:

Monday - Friday

7:00 AM - 5:00 PM (No Lunch Break)

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

Products/materials to be heat treated

#### Duration:

1 day to 3 days

#### How to Avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Bring items to be heat treated at the Heat Treatment Shop	Receive the items, evaluate and inspect if within the capability of the Heat Treatment Service of the Center	20 - 30 minutes	Materials Process and Research Division (MPRD) Personnel (Heat Treatment Staff)		
2	Accomplish four (4) copies of Job Order (JO) Form	Issue JO to the Customer  Check Form if properly accomplished.	5 minutes	MPRD Personnel (Heat Treatment Staff)		Job Order (JO) Form (MPRD 004)
3		Sign the Job Order Form	1 minute	MPRD Personnel		JO Form (MPRD)

				(Heat Treatment Staff)		004)
4		Conduct Heat Treatment Process  Conduct Hardness Test	2-3 days	MPRD Personnel (Heat Treatment Staff)		
5		Prepare and Issue Delivery Receipt (DR)	5 minutes	MPRD Personnel (Heat Treatment Staff)		
6	Get Delivery Receipt (DR) Form (serve as billing) from the MPRD and proceed to the Financial Management Section to pay heat treatment cost.	Process payment and issue an Official Receipt (OR)	10 minutes	MPRD Personnel (Heat Treatment Staff)  Financial Management Section Personnel	as assessed based on <b>Appendix "C"</b> (Heat Treatment Rates)	JO Form (MPRD 004)  Delivery Receipt (DR) (MIRDC 002)  Official Receipt (OR) (Accountable Form No. 51-C)
7	Proceed to Heat Treatment Shop and present the OR and DR	Check the DR, JO and the heat treated items.  Stamp "RELEASED" in the DR indicating the name and signature of the personnel who released the item.  Surrender the heat treated items. In case of partial delivery, check the DR and release only the paid items. (Indicate in the JO Form the quantity of items released	15 -20 minutes	MPRD Personnel (Heat Treatment Staff)		JO Form (MPRD 004)  Delivery Receipt (DR) (MIRDC 002)



		and the date of release.)				
8	Present DR and Property Exit Slip to the security guard in the gate	If material/s was supplied by the customer for heat treatment process, prepare a Property Entry/Exit Slip	2 minutes	MPRD (Heat Treatment Staff )		JO Form (MPRD 004) DR (MIRDC 002)
<b>END OF TRANSACTION</b>						

## METALWORKING TECHNOLOGY SERVICES

### Machining of Actual Time Jobs



#### Schedule of Availability of Service:

Monday - Friday

8:00 AM - 5:00 PM; 11:00 AM- 12:00 Noon (Lunch Break)

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

Sample/Pattern/Drawing

#### Duration:

4 hours - 8 hours

#### How to Avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Proceed to Prototype Division (PD)	Attend to customer inquiry and evaluate requirements submitted	30 minutes	PD Personnel		
2	Fill-out Job Order (JO) and Property Entry Exit Slip (PEES)	Give forms, check the entries and assign JO Number.  Make a record in the logbook. Let the concerned	15 minutes	PD Personnel		Job Order (JO) Form (PD 002)  Property Entry/ Exit Slip (PEES) (MIRDC 003)

		signatories affix their signatures.  Assign JO Number in the drawing and stamped if acceptable and drawing is needed.				
3		Process the product	4 - 8 hours depending on the Complexity and volume of the product			
4		Fill-up Job ticket and let the Supervisor affix his/her signature	10 minutes	PD Personnel (Metal Technologist)		Job Ticket
5		Compute the man hour and machine hour utilized from the job ticket  Compute the bill due and prepare DR and let the concerned signatories affix their signature.	30 minutes	PD Personnel	Rate per hour of the machine used	Billing Slip for Actual Time Job  Delivery Receipt (DR) (MIRDC 002)
6	Proceed to the Financial Management Section and pay the Actual Time Cost or Bill due in processing the Job Order	Process the transaction, accept payment and issued OR	10 minutes	Financial Management Section Personnel	As assessed based on "Appendix E" (PD Schedule of Rates)	Billing Slip for Actual Time Job  JO Form (PD 002)
7	Proceed to PD and present the OR and the stamped DR from the	Get the OR Number and indicate it in the JO File and JO Logbook	20 minutes	PD Personnel		Official Receipt (OR) (Accountable Form No. 51-C)

	Financial Management Section	Let the customer affix his/her complete name, position date and signature in the DR.  If in order, stamp "RELEASED" & affix signature.				JO Form (PD 002)  DR (MIRDC 002)
8	Secure the PEES and the Customer's Copy of DR.  Get the product	Issue completely filled out and signed Property Entry Exit Slip and stamped DR  Release the Product	20 minutes	PD Personnel		PEES (MIRDC 003)  DR (MIRDC 002)
<b>END OF TRANSACTION</b>						

## METALWORKING TECHNOLOGY SERVICES

### Machining of Quoted Jobs



#### Schedule of Availability of Service:

Monday - Friday

8:00 AM - 5:00 PM; 11:00 AM- 12:00 Noon (Lunch Break)

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

Sample/Pattern/Drawing

#### Duration:

4 hours - 8 hours

#### How to Avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Proceed to Prototype Division (PD)	Attend to customer inquiry and evaluate requirements submitted	30 minutes	PD Personnel		
2	Fill-out Assistance Request Form	Provide Assistance Request Form (ARF)  Check entries and assign ARF Number	15 minutes	PD Personnel		Assistance Request Form (ARF) (PD 006)

		Make a record in the ARF Logbook				
3		Prepare cost estimate and let the concerned signatories affix their signatures	30 minutes - 1 hour depending on the complexity and volume of the product			
4		Prepare quotation and let it be approved by the Head of the Office	4 - 8 hours depending on the complexity and volume of the product	PD Personnel		Quotation Form (MIRDC 001)
5		Send the approved quotation to the customer		PD Personnel		Quotation Form (MIRDC 001)
6	Fill-out Job Order (JO) and Property Entry Exit Slip (PEES)	Provides the JO Form and Property Entry/ Exit Slip  Check the entries and assign JO Number and make record in the logbook  Let the signatories affix their signatures  Assign JO Number in the drawing and stamp acceptable and drawing is needed	15 minutes	PD Personnel		Job Order (JO) Form (PD 002)  Property Entry Exit Slip (PEES) (MIRDC 003)

7		Process the product	4 - 8 hours depending on the complexity and volume of the product and schedule	PD Personnel (Metal Technologist)		
8		Prepare DR and let it signed by the concerned signatories	20 minutes	PD Personnel		
9	Proceed to the Financial Management Section and pay the Actual Time Cost or Bill due in processing the Job Order	Process the transaction, accept payment and issued OR	10 minutes	Financial Management Section Personnel	As assessed	Official Receipt (OR) (Accountable Form No. 51-C)  Delivery Receipt (DR) (MIRDC 002)
10	Proceed to PD and present the OR and the stamped DR from the Financial Management Section	Get the OR Number and indicate it in the JO File and JO Logbook  Let the customer affix his/her complete name, position date and signature in the DR and stamp "RELEASED" & affix signature.	20 minutes	PD Personnel		
	Secure PEES and the Customer's Copy of DR.	Issue completely filled out and signed PEES and stamped DR	15 minutes	PD Personnel		
	Get the product	Release the Product	5 minutes	PD Personnel		
<b>END OF TRANSACTION</b>						

**METALWORKING TECHNOLOGY SERVICES**  
**Facility Sharing Services (Equipment)**



**Schedule of Availability of Service:**

Monday - Friday  
 8:00 AM - 5:00 PM; 11:00 AM- 12:00 Noon (Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

1. Personal Protective Equipment
2. Cutting and Measuring Tools

**Duration:**

4 hours - 8 hours

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Proceed to Prototype Division (PD)	Attend to customer inquiry and evaluate requirements submitted	15 minutes	PD Personnel		
2	Secure and fill-up Job Order (JO) Form, Certification for Operator's Competency and Property Entry/ Exit Slip (PEES)	Provide JO Form, Certification for Operator's Competency and Property Entry/ Exit Slip Assign JO Number and make a record in the logbook and let	10 minutes	PD Personnel		Job Order (JO) Form (PD 002)



		the concerned signatories affix their signature(s)				Certification for Operator's Competency (MIRDC 004)  Property Entry/Exit Slip (PEES) (MIRDC 003)
3	Secure with PD an Authorization Slip for Machine Utilization	Issue a completely filled up and signed Authorization Slip	15 minutes	PD Personnel		Authorization Slip for Machine Utilization
4	Use the machine/ equipment with Personal Protective Equipments  Properly accomplish the entries in the Authorization Slip for Machine Utilization	Check or monitor the machine or equipment being used by the customer	4 - 8 hours depending on the complexity and volume of the product and schedule	PD Personnel (Metal Technologist)		
5	Submit the filled up Authorization Slip for Machine Utilization	Check the entries filled up on the Authorization Slip for Machine Utilization and affix signature  Prepare and issue Billing and DR signed by concerned signatories	20 minutes	PD Personnel		Billing Slip  Delivery Receipt (DR) (MIRDC 002)
6	Proceed to the Financial Management Section and pay the Time Sharing Cost due as reflected in the Delivery Receipt	Process the transaction, accept payment and issue Official Receipt	10 minutes	Financial Management Section Personnel	As assessed based on "Appendix E" (PD Schedule of Rates)	Official Receipt (OR) (Accountable Form No. 51-C)  DR (MIRDC 002)

7	Proceed to PD and present the Official Receipt and the stamped Delivery Receipt from the Financial Management Section	<p>Get the OR Number and indicate it in the stamped DR and JO file.</p> <p>Make a record in the JO Logbook.</p> <p>Require the customer to indicate his name, position and date in the DR and affixed his/her signature.</p> <p>Stamp the DR with "RELEASED" and affix signature if all is in order.</p>	20 minutes	PD Personnel		<p>OR (Accountable Form No. 51-C)</p> <p>DR (MIRDC 002)</p>
8	Secure Property Entry /Exit Slip and Customer's Copy of the Delivery Receipt	Issue completely filled-out and signed Property Entry Exit Slip and Delivery Receipt.	10 minutes	PD Personnel		
<b>END OF TRANSACTION</b>						

**METAL CASTING TECHNOLOGY SERVICES**  
**Facility Sharing Services (Foundry Services)**



**Schedule of Availability of Service:**

Monday - Friday  
 7:00 AM - 5:00 PM (No Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

Sample/Pattern/Drawing

**Duration:**

1 - 2 months

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	For Walk-in Customers, proceed to Metals & Process Research Division (MPRD).  For Phone-in Customers, send drawing either through fax message or e-mail	Discuss/clarify Customer's requirements.  Fill out Quotation Request Form and prepare Property Entry/Exit Slip (PEES), if necessary.	0.5 day	MPRD Personnel (Science Research Specialist (SRS) II, Senior SRS, Supervising SRS, Chief SRS; Metals Technologist III, IV or V)		Quotation Request Form (QRF) (MPRD 001)  Property Entry/Exit Slip (MIRDC 003)

	Present sample(s)/ drawing/ pattern to MPRD					
2		Compute estimated cost	3 days	MPRD Personnel (Senior SRS, Supervising SRS)		
3		Prepare quotation	1 day	MPRD Personnel		Quotation Form (MIRDC 001)
4		Approve quotation	2 day s	Dep. Director for Research & Development		Quotation Form (MIRDC 001)
5	Proceed to Financial Management Section and pay the corresponding down Payment	Process the payment and issue OR	10 minutes	Financial Management Section Personnel	30% of the total contract price	Official Receipt (OR) (Accountable Form No. 51-C)
6	Proceed to MPRD and present the OR	Issue Job Execution Order	10 minutes	MPRD Personnel		Job Order Form (MPRD 002) or Job Execution Form
7		Implement the Job Order	15-30 days	MPRD Personnel		
8	Upon acceptance of the product, proceed to Financial Management Section and pay the 70% remaining balance	Prepare billing documents	1 hour	MPRD Personnel	70% of the total amount to be pulled- out	Delivery Receipt (MIRDC 003)  OR (Accountable Form No. 51-C)
9		Prepare Property Entry/ Exit Slip and release the product	1 hour	MPRD Personnel		Property Entry/Exit Slip (MIRDC 003)
10	Present Property Entry/Exit Slip to the security guard in the gate of the Center	Release the product	5 minutes	MPRD Personnel		Property Entry/Exit Slip (MIRDC 003)
<b>END OF TRANSACTION</b>						

**METAL CASTING TECHNOLOGY SERVICES**  
**Facility Sharing Services (Actual Time)**



**Schedule of Availability of Service:**

Monday - Friday  
 7:00 AM - 5:00 PM (No Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

None

**Duration:**

2 hours

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Proceed to Materials & Process Research Division (MPRD)	Discuss requirements/policy with the customer	1 hour	MPRD Personnel		
2	Fill-out and review carefully the content of the Job Order (JO) Form and sign	Process the Job Order Form and prepare Property Entry/Exit Slip (PEES) , if necessary	5 minutes	MPRD Personnel		Job Order (JO) Form (MPRD 002)  Property Entry/Exit Slip (PEES) (MIRDC 003)
3		Sign/approve the Job	1 minute			JO Form (MPRD 002)

		Execution Order and issue Authorization Slip				or Job Execution Form Authorization Slip
4		Implement the Job Order	1 minutes	MPRD Personnel		
5		Check the quality of output/product	30 minutes	MPRD Personnel	Rate per hour of the machine used	
6		Prepare Deliver Receipt (DR)	1 minute			Delivery Receipt (DR)(MIRDC 002)
7	Pay the required amount to the Financial Management Section	Process the payment	10 minutes	Financial Management Section Personnel	Refer to <b>Appendix "B"</b> (MPRD Actual Time Rates)	Official Receipt (OR) (Accountable Form No. 51-C)
8	Proceed to MPRD and present the OR and DR	Check the OR and DR and fill up PEES  Release the Product	2 minutes	MPRD Personnel		OR (Accountable Form No. 51-C) DR (MIRDC 002)  PEES (MIRDC 003)
<b>END OF TRANSACTION</b>						

**METAL CASTING TECHNOLOGY SERVICES**  
**Facility Sharing Services (Time Sharing)**



**Schedule of Availability of Service:**

Monday - Friday  
 7:00 AM - 5:00 PM (No Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

1. Machine/Equipment Bond;
2. Certification of Operator's Competency;
3. Company ID
4. Safety Apparels

**Duration:**

2 hours

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Proceed to Materials & Process Research Division (MPRD)	Discuss requirements/ policy with the customer	1 hour	MPRD Personnel		
2	Fill-out and review carefully the content of the Job Order Form and	Accept and process the Job Order Form and prepare Property Entry/Exit Slip (PEES),	5 minutes	MPRD Personnel		Job Order (JO) Form (MPRD 002)

	sign, if agreeable	if necessary				Property Entry/ Exit Slip (PEES) (MIRDC 003)
3		Check/issue Certification for Operator's Competency	1 minute			
5		Sign/approve the Job Execution Order and issue Authorization Slip  Check the Operator's Personal Protection Equipments	30 minutes	MPRD Personnel		JO Form (MPRD 002) or Job Execution Form  Authorization Slip
6	Use the equipment	Fill out Billing Slip for Time Sharing Jobs to be signed by the customer and the MPRD Chief	5 minutes	MPRD Personnel/ Chief		Billing Slip
7		Prepare DR	10 minutes			Delivery Receipt (DR) (MIRDC 002)
8	Proceed to the Financial Management Section and pay the assessed amount	Process the payment	10 minutes	MPRD Personnel/ Chief	As per MPRD's list of Timesharing Rates ( <b>Appendix "B"</b> )	Official Receipt (OR) (Accountable Form No. 51-C)
9	Proceed to MPRD and present the OR and DR	Check the OR and DR and fill up PEES  Release the Product	2 minutes	MPRD Personnel		OR (Accountable Form No. 51-C)  DR (MIRDC 002) PEES (MIRDC 003)
<b>END OF TRANSACTION</b>						



## FINANCIAL MANAGEMENT SERVICES

### Collection of Payments of Job Orders

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#### Schedule of Availability of Service:

Monday - Friday

7:00 AM - 5:00 PM (No Noon Break)

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

1. Required Billing Documents
2. Order of Payment

#### How Payments Made:

##### A. For Services Made to Company-Customer

1. Cash
2. Manager's or Cashier's Check Payable to the Order of Metals Industry Research and Development Center (MIRDC)
3. Company Check Payable to the Order of Metals Industry Research and Development Center (MIRDC) with the Account Name printed on the face of the check.

##### B. For Services Made to Individual-CUSTOMER

1. Cash
2. Manager's or Cashier's Check Payable to the Order of Metals Industry Research and Development Center
3. Personal Check Payable to the Order of Metals Industry Research & Development Center (MIRDC) with the Account Name printed on the face of the check. **However, CUSTOMERS ARE ADVISED THAT THE SERVICES REQUESTED SHALL ONLY BE RENDERED OR GOODS SHALL BE DELIVERED UPON VERIFICATION OR CONFIRMATION FROM THE DRAWEE BANK THAT THEIR ACCOUNT IS PROPERLY OR SUFFICIENTLY FUNDED OR THE CHECK PAID WAS HONORED BY THE DRAWEE BANK i.e. within three (3) days upon deposit.**

**Duration:** 10 minutes

**How to Avail of the Service:**

<b>STEP</b>	<b>APPLICANT / CUSTOMER</b>	<b>SERVICE PROVIDER</b>	<b>DURATION OF ACTIVITY (Under Normal Circumstances)</b>	<b>PERSON IN CHARGE</b>	<b>FEES</b>	<b>FORMS</b>
1	Proceed to Credit and Collection - Financial Management Section (FMS) and present Customer's copy of Job Order (JO) Form, Delivery Receipt (DR) and/or other Billing Documents	Accept and review documents presented	3 minutes	Credit and Collection - FMS Personnel		
2		Prepare and issue Order of Payment	2 minutes	Credit and Collection - FMS Personnel	As stated in the billing documents	Order of Payment (FAD 009)
3	Present Order of Payment, DR and other Billing Documents, if applicable and pay the corresponding Fees or Charges	Receive Order of Payment and Billing Documents/ accept payment. If payment is in the form of check, review the check as to date, amount and signatory.	2 minutes	Credit and Collection - FMS Personnel	As stated in the billing documents	
4		Issue OR and stamp "PAID" in all billing documents. Sign and release OR and all billing documents except Accounting Copy	3 minutes			Accountable Form No. 51-C (Official Receipt)
<b>END OF TRANSACTION</b>						

**TECHNOLOGY INFORMATION AND PROMOTION SERVICES**  
**Information Dissemination Service**



**Schedule of Availability of Service:**

Monday - Friday  
 8:00 AM - 5:00 PM (No Lunch Break)

**Who May Avail of the Service?**

General Public

**What Are the Requirements?**

Letter of Request addressed to the Executive Director

**Duration:**

1 hour / 5 days

**How to Avail of the Service:**

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Inquires through letter, phone, fax message, electronic mail or personal visit	Accommodate inquiry and fill-out the TIPS 002 Form	10 minutes	TIPS Personnel (Administrative Officer II)		Information Dissemination Request Form (TIPS 001)
2	Requests machine copies of data/ information requested	Process the request and issue corresponding Bill for photocopying service	15 minutes 4 days if information needs to be	TIPS Personnel (Administrative Officer II)		Photocopying Service Form (TIPS 003)

			processed			
3	Proceed to the Financial Management Section and pay the assessed amount	Process the payment and issue Official Receipt	1 minute	Financial Management Section Personnel	Assessed amount depending on how many copies requested (Php 1.50 per page)	Accountable Form No. 51-C (Official Receipt)
4	Proceed to the Photocopying Service and present the OR	Reproduce the requested date/information	20 minutes 30 minutes depending on the volume and copies requested	TIPS Personnel (Administrative Assistant III)		
5	Return information source	Inspect the returned information source	5 minutes	TIPS Personnel (Administrative Officer II)		
<b>END OF TRANSACTION</b>						

## TECHNOLOGY INFORMATION AND PROMOTION SERVICES

### Library Service



#### Schedule of Availability of Service:

Monday - Friday

8:00 AM - 5:00 PM; 11:00 AM -12:00 Noon (Lunch Break)

#### Who May Avail of the Service?

General Public

#### What Are the Requirements?

Identification Card

#### Duration:

1 hour / 5 days

#### How to Avail of the Service:

STEP	APPLICANT / CUSTOMER	SERVICE PROVIDER	DURATION OF ACTIVITY (Under Normal Circumstances)	PERSON IN CHARGE	FEES	FORMS
1	Inquires through letter, phone, fax message, e-mail or personal visit	Accommodate Inquiry	5 minutes	Library Personnel (Administrative Officer IV)		
2		Search for information source.  Provide information source	15 minutes	Library Personnel (Administrative Officer IV)		

3	Requests machine copies of the information/data requested	Prepare billing for the requested copies.	10 minutes  4 days, if the information needs to be processed	Library Personnel (Administrative Officer IV)		Photocopying Service Form (TIPS 003)
4	Proceed to the Financial Management Section and pay the assessed amount as reflected in the bill	Process the payment and issue Official Receipt	10 minutes	Financial Management Section Personnel	Assessed amount depending on how many copies requested	Accountable Form No. 51-C (Official Receipt)
5	Proceed to photocopying services, fill-out TIPS 004 Form and indicate the OR Number	Photocopy/Reproduce the Requested data/information	10 minutes - 20 minutes depending on the volume of the data requested	TIPS Personnel (Administrative Assistant III)		
6	Proceed to the Library and return photocopied information source	Inspect the returned information source	5 minutes	TIPS Personnel (Administrative Assistant III)		
<b>END OF TRANSACTION</b>						

# APPENDICES

## APPENDIX A - SCHEDULE OF FEES AND CHARGES FOR TESTING & CALIBRATION

EFFECTIVE as of 06 AUGUST 2015

### PHYSICO-CHEMICAL LABORATORY

	TEST NAME	RATE (Pesos)		TEST NAME	RATE (Pesos)
1	<b>CARBON/SULFUR</b>		7	<b>COBALT</b>	
	1.1 In Ferrous	650.00		7.1 In Ferrous/Non-Ferrous	670.00
	1.2 In Non-Ferrous	650.00	8	<b>COPPER</b>	
	1.3 In Powders (Low Carbon)	650.00		8.1 In Ferrous/Non-Ferrous	670.00
	1.4 In Tin/Solder Flake	700.00		8.3 In High-Purity Copper/ Cu-based/Cu-Ni/Ni-Cu alloy	1,085.00
2	<b>ALUMINUM</b>		9	<b>IRON</b>	
	2.1 In Ferrous	670.00		9.1 In Non-Ferrous	670.00
	2.2 In Non-Ferrous	670.00		9.2 In Al-based Alloy	670.00
3	<b>ANTIMONY in Nonferrous</b>		10	<b>LEAD</b>	
	3.1 Conc. <5%	670.00		10.1 In Ferrous/Non-Ferrous	670.00
	3.2 Conc. >5%	680.00		10.3 In Pb-based, Pb-Sn & Cu-based	1,140.00
4	<b>BISMUTH</b>		11	<b>MAGNESIUM</b>	670.00
	4.1 In Non-Ferrous	670.00	12	<b>MANGANESE</b>	
5	<b>CADMIUM</b>			12.1 In Ferrous/Non-Ferrous	670.00
	5.1 In Non-Ferrous	670.00		12.2 In Powders	1,310.00
6	<b>CHROMIUM</b>			12.3 In FeMn/Mn Ores/Mn Steel	1,620.00
	6.1 In Ferrous/Non-Ferrous	670.00			
	6.2 In Powders (Low Carbon)	1,310.00			
	6.3 In Stainless Steel/Cast Iron/ Tool Steel	840.00			
	6.4 In Chrome Ores/FeCr	1,630.00			



	TEST NAME	RATE (Pesos)
13	<b>MOLYBDENUM</b>	
	13.1 In Steels	1,530.00
	13.2 In Cast Iron	1,730.00
14	<b>NICKEL</b>	
	14.1 In Ferrous/Non-Ferrous	670.00
	14.2 In Ni-based, Cu-Ni & Ni-Cu alloy & SS	1120.00
15	<b>PHOSPHORUS</b>	
	15.1 In Ferrous	1,160.00
	15.3 In Cu-based Alloy	1,100.00
16	<b>SILICON</b>	
	16.1 In Ferrous/Non-Ferrous	1,130.00
17	<b>SILVER</b>	
	17.1 In Non-Ferrous	670.00
	17.2 In Ag-Brazing Alloy	1,160.00
18	<b>TIN</b>	
	18.1 In Ferrous/Non-Ferrous	670.00
	18.2 In Solders, Pb-based & Cu-based alloys	725.00

	TEST NAME	RATE (Pesos)
19	<b>TITANIUM</b>	
	19.1 In Ferrous/Non-Ferrous	730.00
20	<b>VANADIUM</b>	
	20.1 In Steel/Cast Iron	670.00
21	<b>ZINC</b>	
	21.1 In Non-Ferrous	670.00
22	<b>Moisture</b>	320.00
23	<b>Proximate Analysis</b>	770.00
24	<b>OES Analysis</b>	
	24.1 Ferrous	3,550.00
	24.2 Non-Ferrous	3,900.00
25	<b>Analysis of steel sheets, carbon steel, and LPG steel cylinders</b>	
	24.1 Niobium	For quotation
	25.2 Vanadium	For quotation
	25.3 Titanium	For quotation

## CORROSION LABORATORY

TEST NAME		RATE (Pesos)	TEST NAME		RATE (Pesos)
1	<b>Bend Test</b>	240.00			
2	<b>Tape Test</b>	215.00	8.3	Electrolytic Method	
3	<b>Impact Test</b>	300.00	8.3.1	Single Layer	570.00
4	<b>Pencil Hardness Test</b>	250.00	8.3.2	Additional layer	300.00
5	<b>Identification of Metallic Coating</b>	300.00	9	<b>Weight of Zinc Coating</b>	
6	<b>Salt Spray Test</b>		9.1	Average of Single Spot	
6.1	Per 8 hrs/sample	1,180.00	9.1.1	GI Sheets	430.00
6.2	Per 24 hrs/sample	2,410.00	9.1.2	GI Wires	420.00
6.3	Per 24 hrs (Sat/Sun/holiday)	3,060.00	9.1.3	Pre-coated GI Sheet	540.00
6.4	Per additional sample	300.00	9.1.4	GI Pipe	
7	<b>CASS Test</b>			<100 mm dia.	550.00
7.1	Per 8 hrs.	1,215.00		100-150 mm dia.	680.00
7.2	Per 24 hrs.	2,600.00		150-200 mm dia.	800.00
7.3	Per 24 hrs (Sat/Sun/holiday)	3,030.00	9.2	Triple Spot	
7.4	Per additional sample	200.00	9.2.1	GI Sheet	520.00
8	<b>Thickness of Coating</b>		9.2.2	Pre-coated GI Sheet	590.00
8.1	Stripping Method		10	<b>pH</b>	300.00
8.1.1	GI Sheet	355.00	11	<b>Specific Gravity</b>	250.00
8.1.2	Wires	420.00	12	<b>Sample Preparation</b>	
8.1.3	Pre-painted Sheet	450.00	12.1	GI Wires	100.00
8.2	Micrometer Method		12.2	GI Sheets/Pre-painted Sheets	120.00
8.2.1	GI Sheet	355.00	12.3	Blackened Samples	120.00
8.2.2	Pre-Coated Sheet	480.00	13.	Photo Print	80.00

## MECHANICAL METALLURGY LABORATORY

TEST NAME	RATE (Pesos)	TEST NAME	RATE (Pesos)
<b>1 Tension Test</b>		<b>8 Proofload/Breaking Load</b>	
Plate/Cylinder/Rebar	160.00	Manhole cover/Grating	955.00
Bolts(Axial/Wedge)	290.00	Clevis Assembly	1,020.00
Guy Wire	325.00	Turn Buckle, 1" – 2"	575.00
Using Instron	300.00	Turn Buckle, > 2"	1,145.00
Plate/Cylinder/Round Bars		Wire Rope/Cable Wires $\geq \phi 1 \frac{1}{2}$ "	955.00
For 1000-1500mm <sup>2</sup>	260.00	Small Sample (< 50kg)	305.00
For $\geq 1500\text{mm}^2$	515.00	Big Sample (50 to 100kg)	510.00
<b>2 Bend Test</b>		Heavy Sample (above 100kg)	1,115.00
Plate/Cylinder/Rebar	150.00	Using Instron	300.00
<b>3 Variation in Mass</b>	35.00	<b>9 Shear Test</b>	
<b>4 Deformation Measurement</b>	35.00	Using Shimadzu	290.00
<b>5 Hardness Test</b>		Using Instron	300.00
Rockwell, 5 Indentations	115.00	<b>10 Deflection Test</b>	
Brinell, 2 Indentations	150.00	Shimadzu (5 readings)	300.00
Vickers, 5 Indentations	190.00	Instron (5 readings)	365.00
Micro Vickers, 1 Indentation	210.00	<b>11 Fracture/Break Test</b>	625.00
<b>6 Compression Test</b>		<b>12 Pull-Out Test (Instron)</b>	300.00
Using Shimadzu	275.00	<b>13 Notching</b>	110.00
Using Instron	300.00	<b>14 Oxy-Acetylene Cutting</b>	30.00
<b>7 Flattening/Transverse Test</b>		<b>15 Sectioning Cost</b>	
Using Shimadzu	150.00	up to 1 in <sup>2</sup>	140.00
Using Instron	300.00	1 – 4 in <sup>2</sup>	190.00
<b>New Services offered:</b>		<b>16 Grinding Cost</b>	75.00
Impact Test	For quotation	<b>17 Photo print (B/W)</b>	80.00
Hydraulic Burst and Air Leak Test for LPG cylinder	For quotation		
Bend, twist and winding Tests	For quotation		

## NONDESTRUCTIVE TESTING LABORATORY

	TEST NAME	RATE (Pesos)		TEST NAME	RATE (Pesos)
1	<b>Radiography, X-ray (3.5" X 17" Film)</b>		4	<b>Liquid Penetrant Testing</b>	
	10 mm thick and below	450.00		Visible (per sq. ft.)	310.00
	>10-25 mm thick	480.00		Visible (per linear ft.)	300.00
	>25-35 mm thick	520.00		Fluorescent (per sq. ft.)	350.00
	>35-50 mm thick	550.00		Fluorescent (per linear ft.)	310.00
2	<b>Radiography, X-ray (14" X 17" Film)</b>		5	<b>Magnetic Particle Test</b>	
	10 mm thick and below	950.00		Wet-Visible (per sq. ft.)	330.00
	>10-25 mm thick	970.00		Wet-Visible (per linear ft.)	330.00
	>25-35 mm thick	990.00		Fluorescent (per sq. ft.)	300.00
	>35-50 mm thick	1,030.00		Fluorescent (per linear ft.)	300.00
3	<b>Ultrasonic Testing</b>				
	Flaw Detection ( per sq. ft.)	320.00			
	Flaw Detection (per linear ft.)	350.00			
	Thickness Gaging (per point)	50.00			

## ELECTRICAL CALIBRATION

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)	TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
AC Current Source/Standard		DC Voltage Source/Standard	
1st range	2,070.00	by direct measurement	
per succeeding range	600.00	1st range	1,100.00
AC Voltage Source/Standard		per succeeding range	500.00
1st range	1,370.00	by transfer method	
per succeeding range	450.00	1st range	2,110.00
Ammeter (AC, 20 A)		per succeeding range	850.00
1 to 2 ranges	580.00	DC Clampmeter (up to 500A)	
1 to 5 ranges	930.00	1st range	720.00
Ammeter (DC, 2 A and below)		per succeeding range	300.00
1 to 2 ranges	560.00	Decade Resistance Box (per dial)	880.00
1 to 5 ranges	900.00	Double Bridge	
Ammeter (DC, above 2 A)		1st range	1,420.00
1 to 2 ranges	770.00	per succeeding range	860.00
1 to 5 ranges	1,330.00	Earth Tester	
AC Clampmeter (up to 500A)		1st range	1,100.00
1st range	650.00	per succeeding range	310.00
per succeeding range	260.00	Electronic Load	
Current Shunt, (AC, 10 A)	1,000.00	1st range	950.00
Current Shunt, (AC, 50 A)	1,300.00	per succeeding range	630.00
Current Shunt, (DC, 10 A)	1,100.00	Groundstrap Tester/Checker	
Current Shunt, (DC, 50 A)	1,320.00	1st range	450.00
DC Current Source/Standard		per succeeding range	330.00
1st range	1,650.00		
per succeeding range	700.00		

**Note:** The prices indicated herein serve as general guides and may vary from model to model.

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)	TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
High Voltage Meter (up to 10 kV)		Resistance Box	
1st range	1,540.00	1st five points	430.00
per succeeding range	920.00	per succeeding point	150.00
Insulation Tester (Megohmeter)		Rheostat	430.00
1st range	840.00	Standard Resistor	
per succeeding range	290.00	by direct measurement	2,700.00
Kelvin Bridge		by ratio	3,600.00
1st range	1,500.00	Surface Resistance Checker	
per succeeding range	1,250.00	1st range	670.00
Millivolt Potentiometer		per succeeding range	510.00
1st range	1,430.00	Ultrasonic Tester	1,240.00
per succeeding range	710.00	Variable AC Transformer	550.00
Multimeter, Analog	2,000.00	Voltmeter, (1000V, AC/DC)	
Multimeter, Digital,		1st range	560.00
3 ½ digits	2,500.00	per succeeding range	280.00
4 ½ digits	4,500.00	Wattmeter (AC 240V, 5A)	
5 ½ digits	7,000.00	1st range	1,550.00
6 ½ digits	9,040.00	per succeeding range	780.00
Ohmmeter		Wattmeter (DC 240V, 5A)	
1st range	700.00	1st range	1,420.00
per succeeding range	280.00	per succeeding range	670.00
Puncture Tester		Wheatstone Bridge	2,600.00
1st range	760.00		
per succeeding range	330.00		

**Note:** *The prices indicated herein serve as general guides and may vary from model to model.*

## TEMPERATURE CALIBRATION

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)	TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
Digital Thermometer, T/C		Oven/Freezer (-30 to +500 °C)	
1st range	1,400.00	1st temperature setting	1,200.00
per succeeding range	420.00	per additional temperature setting	300.00
Digital Thermometer, RTD		RTD Calibrator/Simulator	
1st range	1,400.00	1st range	
per succeeding range	420.00	simulate mode	1,700.00
Glass/Filled/Bimetallic Thermometer		measure mode	1,400.00
-30 +120 °C (1st 5 points)	1,350.00	per succeeding range	500.00
per additional point	385.00	RTD Probe/Wire, Industrial	
0 to 100 °C (1st 5 points)	970.00	-30 to +500 °C (1st 5 points)	1,500.00
per additional point	385.00	per additional point	580.00
0 to 200 °C (1st 5 points)	1,310.00	RTD Probe/Wire, Standard	
per additional point	385.00	-30 to +500 °C (1st 10 points)	3,000.00
0 to 350 °C (1st 5 points)	1,360.00	per additional point	770.00
per additional point	385.00	Sling Psychrometer (bulb-type)	
0 to 600 °C (1st 5 points)	1,360.00	0 to 50 °C	1,940.00
per additional point	385.00	Surface Temperature Probe	
Furnace (ambient to 500 °C)		50 to 250 °C	1,100.00
1st temperature setting	1,500.00	Temperature Controller (RTD, T/C)	1,400.00
per additional temperature setting	300.00	Temperature Indicator (RTD,T/C)	1,400.00
Furnace (ambient to 800 °C)			
1st temperature setting	1,500.00		
per additional temperature setting	530.00		

**Note:** The prices indicated herein serve as general guides and may vary from model to model.

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)	TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
Temperature Recorder (RTD,T/C)		Thermocouple Probe/Wire	
Single-point		-30 to +100 °C (1st 5 points)	1,350.00
1st range	1,400.00	per additional point	385.00
per succeeding range	350.00	0 to 100 °C (1st 5 points)	970.00
Multi-point		per additional point	385.00
1st range	2,500.00	0 to 200 °C (1st 5 points)	1,150.00
per succeeding range	500.00	per additional point	385.00
Thermocouple Calibrator/Simulator		0 to 300 °C (1st 5 points)	1,350.00
1st range		per additional point	385.00
simulate mode	1,700.00	0 to 500 °C (1st 5 points)	1,450.00
measure mode	1,400.00	per additional point	385.00
per succeeding range	500.00	0 to 800 °C (1st 5 points)	1,560.00
		per additional point	385.00
		Thermohygrograph	730.00
		Thermostat	580.00
		Water Bath, -30 to +500 °C	
		1st temperature setting	1,200.00
		per additional temperature setting	300.00

**Note:** *The prices indicated herein serve as general guides and may vary from model to model.*



## PRESSURE CALIBRATION

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
Differential Transmitter (D/P Cell)	
Electronic	1,100.00
Pneumatic	1,000.00
I/P Transducer	1,100.00
P/I Transducer	1,100.00
Pneumatic Calibrator	
1st range	1,600.00
per succeeding range	750.00
Pneumatic Controller	800.00
Pneumatic Indicator	700.00
Pneumatic Recorder	800.00
Pressure Gauge	
Pneumatic, industrial grade	700.00
Hydraulic, industrial grade	700.00

## FORCE CALIBRATION

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
Electronic Balance	1,140.00
500 g capacity and below	1,330.00
above 500 g capacity up to 50 kg	
Triple Beam Balance	1,140.00
Weighing Scale	
up to 50 kg capacity	1,140.00
Gram Gauge	800.00
Push-Pull Gauge up to 50 kg	1,000.00

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
Test Gauge	
Pneumatic	1,800.00
Hydraulic	1,800.00
Pressure Switch	700.00
Deadweight Pressure Tester	
Pneumatic type	
piston diameter	550.00
deadweight (per piece)	200.00
performance test	2,200.00
Hydraulic	
piston diameter	550.00
deadweight (per piece)	200.00
performance test	2,200.00

## DIMENSIONAL MEASUREMENT

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
Roundness Measurement	800.00
Straightness Measurement	750.00
(conventional method)	
Conventional measurement using	
V. caliper, Dial Gauge,	
O. micrometer, etc.	400.00

**Note:** *The prices indicated herein serve as general guides and may vary from model to model.*

## LENGTH CALIBRATION

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)	TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
Vernier Caliper		Vernier and Digimatic Height Gauge	
0 - 150 mm range	750.00	0 - 600 mm range	840.00
above 150 - 200 mm range	850.00	Gauge Block	
above 200 - 300 mm range	930.00	Grade 0 (per piece)	570.00
above 300 - 600 mm range	1,025.00	Grade 1 (per piece)	460.00
Outside Micrometer		Grade 2 (per piece)	360.00
0 - 25 mm range	600.00	Deburring (per piece)	120.00
25 - 100 mm range	700.00	Fixed Gauges (Plug/Go-No Go) per side	800.00
100 - 150 mm range	800.00	Pin Gauges (per piece)	150.00
Setting rod calibration per piece	500.00	Toolmakers Microscope	2,270.00
Depth Micrometer	600.00	Optical Projector	2,270.00
Tubular Micrometer calibration for		Glass Scale	
Micrometer head only	1,320.00	0-100 mm, max. 10 points	490.00
Dial Gauge, Dial Thickness Gauge		0-200 mm, max. 10 points	640.00
and Dial Test Indicators using		0-300 mm, max. 10 points	720.00
calibration tester		Surface Plate	
0-20.0 mm range	750.00	Diagonal Length in mm:	
Feeler Gauge per leaf	150.00	Over	up to & including
Combination Set		-	354
Centering Head	640.00	354	566
Protractor Head	900.00	566	891
Square Head	900.00	891	1414
Steel Rule	500.00	1414	2236
Height Master, 0-300mm, per column	2,100.00	2236	2968
			3,690.00

**Note:** The prices indicated herein serve as general guides and may vary from model to model.

TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)	TYPE OF EQUIPMENT/DEVICE	RATE (Pesos)
Dial Caliper Gauges	1,400.00	Precision Check Master	
Machine Tools: (using LASER)		600 mm and below	2,600.00
Linear Positioning error/axis	2,840.00	Precision Straight Edge	
Straightness error/axis	2,840.00	1000 mm and below	1,180.00
Squareness per axis	5,680.00	Bore Gauge – 300 mm and below	1,740.00
Steel Rule		Microindicators	1,400.00
0-200 mm	400.00	Vernier Depth Gauge	1,300.00
0-300 mm	490.00	Ball Bar Testing	2,500.00
0-600 mm	630.00	Digimatic Indicators (>20 mm res.)	1,400.00
0-1000 mm	840.00	Digital Thickness Gauge	
Rockwell Hardness Tester (per scale)	1,840.00	(Non-removable)	1,400.00
UTM		Dial Gauges (>20mm)	1,400.00
for one range	2,850.00	Comparison of LASER using:	
for additional ranges	1,190.00	UMM for x-axis only (combined)	3,000.00
Precision Square		Precision Square Master	3,200.00
200 x 300 mm and smaller	1,200.00	(each measurement )	
Precision Square Master (using LASER)	2,300.00	Snap Gauge/Snap Meter, 0-25mm	
Bevel Protractor	1,100.00	0 – 25 mm	1,400.00
Precision Level per scale	930.00	25 – 100mm	1,800.00
Mu-Checker (for one range)	1,400.00	Carpenter Square	
per additional setting range	750.00	Squareness	1,200.00
Calibration Tester	1,800.00	Linear Scale per leg	630.00
Caliper Checker - 600 mm and below	2,300.00	De-burring of other Small Tools	600.00
		Caliper Type Inside Micrometer	1,300.00

**Note:** The prices indicated herein serve as general guides and may vary from model to model.

## FIELD JOBS

### Non-Destructive Testing Laboratory

Field Inspection	<u>Two (2) or less personnel</u>	<u>More than two (2) personnel</u>
a) Within Metro Manila		
Radiography	PhP 3,000.00	PhP 3,000.00 + 800/person
Ultrasonic	PhP 3,000.00	PhP 3,000.00 + 800/person
Magnetic Particle	PhP 2,000.00	PhP 2,000.00 + 800/person
Penetrant	PhP 2,000.00	PhP 2,000.00 + 800/person
b) Outside Metro Manila		
Radiography	PhP 3,600.00	PhP 3,600.00 + 1,200/person
Ultrasonic	PhP 3,600.00	PhP 3,600.00 + 1,200/person
Magnetic Particle	PhP 3,000.00	PhP 3,000.00 + 1,200/person
Penetrant	PhP 3,000.00	PhP 3,000.00 + 1,200/person

### Physical Metallurgy Laboratory

Replication		
a) Within Metro Manila	PhP 2,000.00	PhP 2,000.00 + 800/person
b) Outside Metro Manila	PhP 3,000.00	PhP 3,000.00 + 1,200/person

### Instrumentation and Metrology Laboratory

In-Plant Calibration		
a) Within Metro Manila	PhP 2,000.00	PhP 2,000.00 + 800/person
b) Outside Metro Manila	PhP 3,000.00	PhP 3,000.00 + 1,200/person

### Physico-Chemical Laboratory

Sampling		
a) Within Metro Manila	PhP 3,000.00	
b) Outside Metro Manila	to be evaluated	

**\* ADDITIONAL COST FOR FIELD JOBS WITH OVERTIME, AND ON SATURDAYS, SUNDAYS AND HOLIDAYS.**

## APPENDIX B - PHYSICAL METALLURGY LABORATORY

TEST NAME	RATE (Pesos)	TEST NAME	RATE (Pesos)
<b>1 Metallography</b>		<b>6 Energy Dispersive Spectroscopy</b>	2,000.00
Plain Carbon Steel	1,600.00		
Cast Iron	2,000.00	<b>7 Mounting</b>	
Stainless Steel	2,250.00	Transoptic	80.00
High Alloy Steel	2,250.00	Bakelite	80.00
Al/Al Alloy	2,050.00	Epo-fix	320.00
Cu/Cu Alloy	2,200.00	Cito-fix	360.00
Pb/Pb Alloy	3,800.00	Epo-Cito fix	300.00
Weldments	3,500.00		
Boiler Tubes	2,500.00	<b>8 Metallographic Grinding</b>	400.00
Galvanized Sheet	2,500.00		
Multi-layered Bearings	2,600.00	<b>9 Grinding/Polishing</b>	750.00
Thickness of Coating	2,200.00		
		<b>10 Etching</b>	120.00
<b>2 Macroexamination</b>	1,850.00		
		<b>11 Failure Investigation</b>	25,000.00
<b>3 Metallographic Replication</b>	600.00		
<i>(in addition to metallography cost depending on type of metal/alloy)</i>		<b>12 Fractographic Evaluation</b>	7,000.00
<b>4 Photography</b>	80.00	<b>13 Metal Characterization</b>	9,000.00
<b>5 Scanning Electron Microscopy</b>		<b>14 Metal Classification/Certification</b>	750.00
Conductive Sample	2,000.00		
Non-Conductive Sample	2,600.00		

## APPENDIX C– MATERIALS AND PROCESS RESEARCH DIVISION MACHINE RATES

As of May 2007

### INVESTMENT CASTING FACILITIES

MACHINE/EQUIPMENT	RATE PER HOUR (Php)		MACHINE/EQUIPMENT	RATE PER HOUR (Php)	
	Time Sharing	Actual Time		Time Sharing	Actual Time
I. WAX PATTERN			IV. SHELLFIRING		
Wax Melting Tank	54.00	282.00	Shellfiring Furnace	187.00	407.00
Wax Curing Tank	58.00	286.00			
Wax Injection Machine	108.00	333.00	V. FETTLING		
Hot Plate/ Soldering Iron	26.00	256.00	Spencer & Halstead SB	38.00	268.00
			HI Pneumablaster	12.00	243.00
II. CERAMIC MOLD MAKING			Knockout Machine	124.00	347.00
Slurry Mixer w/ parts	48.00	277.00	Cut-off Machine	83.00	310.00
Fluidized Bed	4.00	235.00	Denyu Belt Polishing		
AirCon	1,373.00	1,513.00	Model SS-222A SN 86006	37.00	267.00
Dust Collector	29.00	259.00	Compressor (Iwata) 20 HP	319.00	530.00
III. DEWAXING					
Autoclave Machine	300.00	512.00			
Wax Reclaiming Machine	265.00	479.00			

**Note:** The prices indicated herein serve as a general guide.

## CONVENTIONAL CASTING FACILITIES

MACHINE/EQUIPMENT	RATE PER HOUR (Php)		MACHINE/EQUIPMENT	RATE PER HOUR (Php)	
	Time Sharing	Actual Time		Time Sharing	Actual Time
I. MOLDING			III. PATTERN SHOP		
Continuous Sand Mixer	280.00	491.00	Wadkin Bursgreen Bench Tablesaw		
Sand Reclaimer	69.00	293.00	SN 70113 Titling Arbor Sawbench	32.00	259.00
Forklift	82.00	306.00	Wadkin Bursgreen Bench Tablesaw		
CO2 Mixer	-	274.00	SN 70454	48.00	274.00
Sand Reclaimer (Vespa Compresor)	41.00	268.00	Band Sawing 1.5 HP	25.00	253.00
II. FETTLING			Stensberg Bandsaw LB 30M	6.00	235.00
Shotblasting (Nissho Iwai)	463.00	662.00	Wadkin Bursgreen SN 12BFT 70864	79.00	303.00
Shotblasting (Sinto)	144.00	364.00	Stensberg wood lathe	24.00	252.00
Pedestal Wheel Grinder rema	72.00	297.00	Wadkin Wood Lathe 1.5 HP	35.00	262.00
Angle Grinder bosch gws29-180	47.00	274.00	Arboga Drill Press	35.00	262.00
Pneumatic Chipping Hammer (Rd Shook)	1.00	230.00	Forklift	82.00	306.00
Silicon Arc Air Gouging- National	1,958.00	2057.00	Rotary Machine	17.00	245.00
Oxy acetylene cutting	-	230.00	Moisture Teller	2.00	231.00
			Analytical Balance	3.00	232.00
			Cold Chamber Die Casting Machine	1,218.00	1366.00
			Hot Chamber Die Casting Machine	720.00	902.00
			Low Pressure Die Casting Machine	1,116.00	1,271.00

**Note:** The prices indicated herein serve as a general guide.

<b>MACHINE EQUIPMENT</b>	<b>RATE PER HEAT (ACTUAL TIME)</b>
150 kg Induction Furnace	3,605.00
250 kg Induction Furnace	5,515.00
500 kg Induction Furnace (single heat only)	10,720.00
500 kg Induction Furnace (min. of 2 successive heats/day)	7,705.00
<b><i>CUSTOMER SUPPLIED KEROSENE</i></b>	
150 kg Induction Furnace	3,440.00
250 kg Induction Furnace	5,180.00
500 kg Induction Furnace (single heat only)	10,230.00
500 kg Induction Furnace (min. of 2 successive heats/day)	7,150.00
50 kg Crucible Furnace - Aluminum	960.00
50 kg Crucible Furnace - Brass	4,010.00
200 kg Crucible Furnace - Aluminum	4,920.00
200 kg Crucible Furnace - Brass	7,980.00
500 kg Crucible Furnace - Aluminum	6,770.00
500 kg Crucible Furnace - Brass	10,385.00

**Note:** The prices indicated herein serve as a general guide.



## APPENDIX D – HEAT TREATMENT SERVICES RATES

### BY BATCH:

Type of Process	Cost/Batch (Php)	Furnace
hardening/Annealing or Normalizing	975.80	Thermolyne
hardening/Annealing or Normalizing	1,951.60	DOST
hardening/Annealing or Normalizing	2,229.80	Fulmina
hardening/Annealing or Normalizing	4,725.00	Jalipines Chamber Furnace (100 kg. cap.)
hardening/Annealing or Normalizing	1,200.00	Jalipines Chamber Furnace (50 kg. cap.)

### HEAT TREATMENT BATCH RATE GUIDE:

Furnace	Capacity Dimension (in mm) (L x W X H)	Weight (in kgs.)	Cost/Batch (Php)
Thermolyne	355.6 x 203.2 x 152.4	Below 22	975.80
DOST	533.4 x 228.6 x 228.6	Below 44	1,951.60
Fulmina	914.4 x 406.4 x 228.6	Below 50	2,229.80
Jalipines Chamber Furnace (100 kg. cap.)		Below 105	4,725.00
Jalipines Chamber Furnace (50 kg. cap.)		Below 26	1,200.00

Process: Hardening (Through/Case)	
Furnace ID	*Rate/batch (Php)
Chamber Furnace 27-1	1200/batch (1 batch = 27 kg max)
Chamber Furnace 27-2	1200/batch (1 batch = 27 kg max)
Chamber Furnace 105	4725/batch (1 batch = 105 kg max)

Process: Annealing/Stress Relieving/Tempering	
Furnace ID	**Rate/batch (Php)
Chamber Furnace 27-1	1200/batch (1 batch = 93 kg max)
Chamber Furnace 27-2	1200/batch (1 batch = 93 kg max)
Chamber Furnace 105	4725/batch (1 batch = 364 kg max)

\* if exceeds furnace batch limit, Php 45 x gross weight.

\*\* if exceeds furnace batch limit, Php 13 x gross weight.

## APPENDIX E - INDUSTRIAL TRAINING SECTION TRAINING FEES

Effectivity Date: January 2, 2009

Training Program	Training Fee Per Pax	Training Program	Training Fee Per Pax
<b>Analysis &amp; Testing</b>		<b>High Machining Technology</b>	
Chemical Analysis of Metals	4,500.00	Plastic Injection Molding Machine Prog. & Optn.	7,600.00
Dimensional Metrology 1: Basic Measurement	4,200.00	Application of CAD/CAM	7,000.00
Dimensional Metrology 2: Length Calibration	4,200.00	Basic Plastic Mold Design	5,400.00
Dimensional Metrology 3	3,600.00	CNC EDM Wire-Cutting, Programming & Optn.	9,100.00
Uncertainty of Measurement	3,600.00	CNC EDM Sinking, Programming and Operation	8,700.00
Nondestructive Testing	6,600.00	CNC Milling Programming and Operation	8,400.00
Fundamentals of Corrosion	3,600.00	Basic CMM Operation	5,600.00
Industrial Calibration	3,400.00		
Metals Identification and Selection	3,600.00	<b>Productivity Improvement Program</b>	
		Value Analysis/Engineering	4,800.00
		5S Practice	2,200.00
<b>Engineering, Production &amp; Planning</b>		<b>Management &amp; Supervisory</b>	
Technical Drawing with CAD Application	7,300.00	Time Management	3,000.00
Basic Computer-Aided Design	7,100.00	Feasibility Study Preparation	3,600.00
Establishment of Preventive Maintenance System	4,500.00	Project Management	4,400.00
Production Planning and Control	3,000.00		
Cost Estimation for Machining Jobs	3,000.00		
Product Costing	3,600.00		

<b>Training Program</b>	<b>Training Fee Per Pax</b>
<b>Metal Casting Technology</b>	
Foundry Practices	6,500.00
Foundry Melting Practice	5,700.00
Foundry Quality Control	5,400.00
Investment Casting	4,800.00
<b>Metalworking Technology</b>	
Hydraulic Control and Design	6,000.00
Machine Shop Operation	8,000.00
Brazing Process	4,800.00
Heat Treatment of Steels	5,600.00
Metal Fabrication	6,000.00
MIG-MAG Welding	12,100.00
Oxy-Acetylene Welding	3,900.00
TIG Welding	13,800.00
Programmable Logic Control	4,800.00
Shielded Metal Arc Welding	8,100.00
Electroplating Process	4,500.00
Turning 1	3,600.00

<b>Training Program</b>	<b>Training Fee Per Pax</b>
<b>Trainer's Training Program &amp; Other Program</b>	
Trainers Training Program 1	4,800.00
Trainers Training Program 2	4,800.00
<b>Quality Management System</b>	
Customer Satisfaction Measurement	2,500.00
ISO/IEC 17025	5,000.00
Preparing a QMS (ISO 9001:2000)	3,000.00
Documenting a QMS (ISO 9001:2000)	3,000.00
Internal Quality Audit	3,200.00
EMS/ISO 14001:2004	2,500.00

## APPENDIX F – PROTOTYPING DIVISION MACHINE RATES

EQUIPMENT	RATES PER HOUR (Php)		EQUIPMENT	RATES PER HOUR (Php)	
	Time Sharing	Actual Time		Time Sharing	Actual Time
<b><u>Rapid Prototyping Machine</u></b>			<b><u>Lathe Machine</u></b>		
Stratasys FDM3000	-	-	Heineman	209.00	413.00
			Colchester	63.00	266.00
			Hanseat	51.00	254.00
			Hamburg	44.00	247.00
			Yamazak Mazak-Mate	47.00	250.00
			Hardinge	32.00	235.00
			Takisawa	34.00	237.00
			Lodge & Shipley	83.00	286.00
<b><u>CNC Machine</u></b>			<b><u>Milling Machine</u></b>		
CNC Wirecut (Sodick)	663.00	866.00	Niigata	299.00	502.00
CNC EDM Sinker (Sodick)	580.00	783.00	Cincinnati Milacron	213.00	416.00
Highspeed Drill (Sodick)	102.00	305.00	Pfeifer	127.00	331.00
CNC Milling (Maho)	327.00	530.00	Huron (PU-551)	153.00	356.00
CNC Wirecut (Agie)	589.00	792.00	Huron (NU-3)	114.00	317.00
Vertical Machining Center (Mazak VTC-16)	688.00	891.00	Deckel FP3L	89.00	292.00
Vertical Machining Center (Mazak FJV-25)	688.00	891.00	Deckel FP3	73.00	277.00
NC Surface Grinder (Okamoto)	384.00	587.00	Deckel FP2	70.00	273.00
CNC Lathe	688.00	891.00	Deckel KF2S	62.00	266.00
			Deckel Pantograph GK-2	25.00	228.00
			Ravensburg	62.00	265.00
<b><u>Plastic Injection Machine</u></b>					
Sumitomo 80T	276.00	479.00			
Sumitomo 150T	450.00	653.00			
Sumitomo 350T	825.00	1,028.00			
Mitsui Pre-Heating	53.00	-			

EQUIPMENT	RATES PER HOUR (Php)	
	Time Sharing	Actual Time
<b><u>Cylindrical Grinder</u></b>		
Schaudt A-440-N-1	166.00	370.00
Jones & Shipman 1305	70.00	273.00
Jones & Shipman 1300	62.00	265.00
<b><u>Surface Grinder</u></b>		
Cone Blanchard	342.00	545.00
Thompson Matrix	254.00	457.00
Jones & Shipman 540H	36.00	239.00
Jones & Shipman 540	33.00	236.00
<b><u>Drilling Machine</u></b>		
Webo RBR-70H	138.00	341.00
Guillardon GB-50V	45.00	248.00
<b><u>Pressworking Machine</u></b>		
Christensen Deep Drawing	90.00	293.00
Christensen Straightening	19.00	222.00
Canullo Eccentric Press	35.00	238.00

EQUIPMENT	RATES PER HOUR (Php)	
	Time Sharing	Actual Time
<b><u>Tool &amp; Cutter Grinder</u></b>		
Deckel Universal	30.00	233.00
Deckel Single Lip	25.00	228.00
Deckel SO-73-15508	20.00	224.00
Solid Pedestal DS-400-ST	28.00	231.00
Solid Pedestal D-83-CD	25.00	228.00
Portable Disc Grinder (Bosch)	25.00	228.00
Disc/Angle Grinder (Makita)	21.00	224.00
<b><u>Fabrication Machine</u></b>		
Goteneds Guillotine Shear	32.00	235.00
Austral Kleen Plate Bender	40.00	243.00
Edwards Plate Roller	31.00	235.00
Pullmax Plate Nibbler	23.00	226.00
Hyllus Bending Machine	22.00	225.00
Mubea Shear Cutter	19.00	222.00
Super Condor Pedestal Drill	21.00	225.00

EQUIPMENT	RATES PER HOUR (Php)	
	Time Sharing	Actual Time
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Jones & Shipman 1305	70.00	273.00
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