

Tanzania Engineering and Manufacturing Design Organization (TEMDO)



Your Partner in Technology

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TEMDOs

Main Functions:

- Design and development of machine and technology
- Transfer of technologies to manufacturing SMEs
- Consulting services to industries
- Training of engineers and technician in industries

Welcome Note

Dear Brothers and Sisters. I greet you in the name of the United Republic of Tanzania!

On behalf of the Board of Directors, Management, and Staff of TEMDO, we welcome you to read our 1st version of the Newsletters. This issue has covered activities, that were accomplished by our Institution in the 2021/2022 financial year. We have also outlaid the plans for the financial year 2022/2023.

It is anticipated that through this newsletter you will be able to understand what TEMDO is doing and what service we can offer to you and the community. We will always strive to ensure that we are Your Technology Partner in building an industrialized economy in Tanzania



Director General
Eng. Prof. F.C. Kahimba

Exhibition

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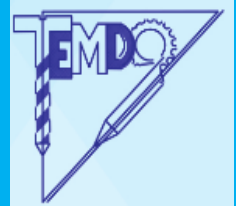
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Manager of Industrial Technical Support Services Engineer Jackson Massaka holding the prize of the cup of the second winner in the category of innovation of agricultural machinery and tools given in the 28th Nane Nane farmers exhibition held in Them Njiro grounds in Arusha city council. Engineer Massaka proclaimed that TEMDO are focused on making machines and equipments for post harvesting and value additions of farmer produce to ensure that when the farmer cultivates, they increase the productivity of produced crops and profitability. Some of exhibited machine and equipment's are Sunflower oil min refinery plant, Peanut butter processing plant, raspado machine, fruit pulper machine, briquetting machine, spice milling machine, grape crusher/destimmer, animal food mixer, tomato seed separator, honey processing equipment and seed dressing machine.



Eng. Jackson Massaka





Sugar Cane Processing Plant



The Minister of the Ministry of Investment, Industry and Trade Hon. Dkt. Ashatu K. Kijaji has directed TEMDO to accomplish the design and manufacture of Min Sugar Processing Plant (machines and equipment) which will be installed and commissioned to Kilombero in Morogoro region before December 2022 and replicated to Mtibwa and other parts of the sugar-

cane growing area which will help Small and Medium farmers to overcome the deterioration of farmers produce. This plant will address the recurring sugar shortages in the country and will be able to process one ton of sugarcane per hour where it will have average processing of ten tons per day. The plant will solve the problem of sugar supply as it will be pro-

cessed by small industries using machines that will be manufactured by TEMDO. The government encourages smallholder producers to increase sugarcane production through a system of smallholder farmers starting from households and even small groups, the aim is to produce 700,000 tonnes of sugar per year by 2025. Once the country achieves this target, it won't need to import sugar to meet domestic demand.

Clean Energy for Cooking



Biomass Briquetting Plant

The idea of making biomass briquettes from agro and industrial residues provides an opportunity for saving the cutting of trees and environmentally safe disposal of agro residues and garbage which are currently burnt or left to litter the streets. TEMDOs design and manufacture this technology to process agro

residues which are considered as the waste and are not even consumed by animals such as groundnut, rice husks and sawdust to produce briquettes or charcoals which can be used as the source of energy for cooking or for industrial use.

The process involves drying, sieving, grinding and pressing briquettes into uniform shapes. By compressing the wastes into briquettes they become easier to transport, and store; give much higher efficiency and lasts longer with more calorific value than ordinary charcoal made from trees.

Biomedical Hospital Waste Incinerator



Hospital Waste Incinerator

Biomedical Solid Waste Incinerator is a special design machine for the reduction of refuse into inert gases and solids by controlled combustion. For over ten years, TEMDO as R&D institution has developed this special machine to handle hospital wastes efficiently at

the same time protecting the environment. This machine burns Biomedical Solid Wastes to highest recommended temperature and allows only harmless smoke to be released to the atmosphere. By de-signing this machine, TEMDO has substantially reduced the prob-

lem of importing the Biomedical Solid Wastes Incinerator from abroad which is a burden to our economy and most of our hospital cannot manage due to their limited resources. Main features:

- Primary chamber - (Temp. 700C)
- Secondary chamber- (Temp. 1000C)



Affordable Oil Refinery Plant

Edible oil is among the major agricultural products produced in great quantities but with low contribution to overall economic development of the country. The main reason for this situation is low level of processing leading to losses and low value, thus the need for

intervention. In order to address this problem, TEMDO has taken the initiative to promote and commercialize seed oil processing technologies suitable for establishing medium scale agro-processing industries. The effort which has been

done by TEMDO in the processing of seed oil is the development of a medium scale sunflower oil processing plant. This plant which consists of sieving machine; seed decorticator; oil expeller; oil filter press; storage tanks, refinery equipment, (conveyors and pumps)



Oil Refinery Plant

An Alternative Way of Disposing Used Sanitary Pad

Menstrual hygiene management refers to the creation of an ecosystem that allows women and girls to experience menstruation in a safe and dignified manner. This begins with easy and affordable access to feminine hygiene products to absorb or collect menstrual blood,

and ends with access to facilities for disposing the used products in a safe, hygienic and sustainable manner. Privacy is an important factor that impacts disposal of menstrual products. Incineration is an option for managing disposal

of menstrual waste, particularly in worksites, schools and dormitory settings. TEMDOs developed a sanitary pad incinerators with a properly vented and directly connected to the toilet room by a chute provide an effective and discrete way of disposing of menstrual absorbents.



Medical Equipment

Uhuru Hospital in Chamwino District in Dodoma Region has received 5 Million Shillings (5m) in Medical Equipment from TEMDO as a contribution to the Corporate Social Responsibility (CSR) as follows; Two delivery bed, Two normal hospital beds

with adjusted slotted bar mechanism, Two Examination Beds with racks for reclining mechanism, Two drip stand with straight base. These products were provided by the Director General Engineer Prof. Kahimba and received by the District Ex-

ecutive Director (DED) Dr. Semistatus Mashimba on behalf of the Hospital. TEMDO currently has developed more than fifteen (15) medical equipment with TMDA certification.





Establishment

The Tanzania Engineering and Manufacturing Design Organization (TEMDO) is an applied R&D institution under the Ministry of Investment, Industry and Trade (MIIT). TEMDO was established through Act of Parliament No. 23 of 1980 and started its operations in July 1982 with the mission of promoting engineering design, technology development and enhancement of the competitiveness of local manufacturing enterprises through provision of various technical support services, including training. TEMDO is the only industrial support organization mandated with the development and promotion of industrial machinery and equipment in Tanzania. TEMDO is based in the City of Arusha at Njiro Hills, six Kilometres from the city center.

Vision

To be best developer and provider of quality and competitive plants, equipment and technical services in the region (East and Central Africa)

Mission

To research, develop and transfer plants and equipment for commercial manufacturing and deliver competitive R&D services to the industrial sector

Core Competences

In fulfilling the stated mission, TEMDO is guided by the following core values:

Being demand driven in its design, technology development, technical support and training services;

Operating with the highest quality standards and professionalism;

Operating in business-like manner to ensure timely delivery of products and services to customers and promoting commercialization of proven technologies;

Human Capacity and Facilities

TEMDO has total staff strength of fifty two (52) personnel including twenty two (22) technical personnel. The technical personnel comprise of professional engineers and technicians. The technical personnel are supported by a total of thirty (30) administrations and other support staff.

TEMDO has a fairly good design office equipped with modern basic equipment including personal computers (PCs) and desktop computers loaded with the appropriate design software for Computer Aided Design and Drafting (CADD) and other application software like Solid Works and professional Inventor. The design function of TEMDO is supported

by a machine shop equipped with CNC machines and other general purpose machine tools for key metal cutting operations.



Plasma Cutting Machine



CNC lathe Machines



CNC Milling Machines