

Deploy ANATERGOARM™ at your factory

Articulated Nimble Adaptable Trunk

ANATERGOARM™ TMA-500

Developed and designed by Robotics Design Inc. Canada

Robotics Design Inc. is an innovative Canadian company dedicated to the design and development of robotic, electrical and mechanical systems to resolve complex industrial challenges faced by manufacturers worldwide. **ANAT™** products are designed with **ANAT** modular technology from Robotics Design Inc. Canada.

Repair and maintenance of turbine components is a dangerous task due to the limited maneuvering space available in the turbine. Power production stops during repair, which favors a fast solution to repair and maintenance needs that can be quickly assembled and disassembled on site. Without proper equipment for the job, plant owners risk time, productivity, and the safety of their workers.

Robotics Design Inc. created the **ANATERGOARM™ TMA-500** specifically to overcome these challenges and provide a fast and easy maintenance and repair method that can bend around obstacles, carry heavy loads, be quickly and easily assembled and disassembled on site with a minimum workforce, and allow workers to perform tasks in complete safety.

The **ANATERGOARM™ TMA-500** is a heavy-duty manual ergonomic manipulator arm specialized for repair and maintenance of hydroelectric turbines.

This product is protected by US patent
and other international patents pending
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It is composed of a series of linked **ANAT** modules forming a serpentine arm attached to a vertical axis that can be made mobile along a rail, or stationary when fixed to a column using our rugged support system. Its modular design and hyper-redundancy allows it to carry payloads of up to 500kg and maneuver around obstacles, making the **ANATERGOARM™ TMA-500** highly effective for tasks in limited work-envelopes.

The **ANATERGOARM™ TMA-500's** arm(s) fold relatively to each other, mimicking the natural bio-mechanical movement of the human body, which offers a larger coverage area and allows users to accurately and effortlessly manipulate heavy loads, improving worker and equipment safety.

The components of the **ANATERGOARM™ TMA-500** arrive ready-to-assemble in 2 portable pelican cases. Components are assembled, deployed and stored quickly and easily with two operators, thanks to the **ANATERGOARM™ TMA-500's** Lego like **ANAT** modular design. The arm's length can be customized by adding or removing modules to or from the arm, depending on user needs.

The **ANATERGOARM™ TMA-500** is ruggedly built for lasting performance from aerospace aluminum and heat-treated steel, and is an indispensable part of maintaining a safe and functional hydroelectric power plant.

At the touch of a button, the **ANATERGOARM™ TMA-500** moves vertically, while horizontal movements are performed by pushing the arm manually. The **ANATERGOARM™ TMA-500** maintains its positioning along the vertical axis, even if power intake is removed, allowing users to safely leave the arm unattended at any time. Its innovative SCARA architecture nullifies the effect of gravity, allowing the arm to move horizontally without friction or power consumption.

To manipulate objects, simply lock them to the end effector using the included bars and pins, adjust to desired height pressing the UP and DOWN buttons, and push or bend the arm manually

Advantages

- Increases productivity, reduces operating costs and improves the quality of the production.
- Reduces work-place accidents and injuries.
- Works in limited spaces and around obstacles.
- Portable and easy to operate, assemble, deploy and store.
- Improves the operator's comfort and safety by providing an ergonomic working procedure and reducing RMI and carpal tunnel syndrome.

Key Features

- Fast and easy to assemble and remove portable and re-configurable modular design
- Robust and flexible design which supports pay-loads up to 500kg.
- Adjustable arm length: users can add or remove modules depending on their needs.
- Optimized work-space coverage: performs a full rotation of 360 degrees without turning the base, reducing space needed to perform.
- Object and arm position retention assured even if power is removed.
- Arm remains parallel to the horizontal plane.
- Can be designed in dual arm configuration.

Applications

- Maintenance and repair of hydroelectric turbines.
- Industrial material manipulation.
- Handling, assembly and repair of heavy objects in limited work spaces.

ANATERGOARM™ TMA-500

Modules	Construct	Anodized aluminum
	Number of modules	4
	Weight	25 Kg
	Length	9 Inches
	Height	8 Inches
	Width	4.5 Inches
Base	Construct	Anodized aluminum
	Weight	75 Kg
	Length	12.5 Inches
	Height	33.75 Inches
	Width	11.25 Inches
	Vertical travel	15.5 Inches
Carrier	Construct	Anodized aluminum
	Load capacity	500 Kg
	Weight	35 Kg
Circular rail	Construct	Anodized aluminum
	Number of units	16
	Weight	35 Kg
	Angle	20
Arm	Length	68.5 Inches
	Height	8 Inches
	Width	4.5 Inches
	Number of handles	7
	Rotation	360°
Input		30-125VAC 50/60 Hz
Consumption		16 A
Construct		Anodized aluminum
Total Weight		300 Kg

