



press office

FieraMilano Rho Fairgrounds

October 12-15, 2022

Biennial world exhibition for woodworking technology and furniture supplies

Assago, July 12, 2022
To Xylexpo 2022 exhibitors



To the kind attention of
SECRETARIAT OF XIA AWARDS 2022
Eng. Matteo Simonetta
Acimall Technical Office
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Nomination to XIA Award 2022 **By and within September 15, 2022**

I, the undersigned, (name and surname): **Ejder Bayır**
in my capacity as (company role): **Geomatics Engineer**
of company (full company name): **Karabudak Machinery**
based in (country, city): **TURKEY / Kocaeli**
in (street, square address): **Inonu 1. Street number: 6**
ZIP 41400 country **TURKEY**

submit a nomination to XIA 2022 award for the following machine / solution / plant:
model / denomination **Vibration Sanding Machine TZM 1300**

PRESS OFFICE

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www.xylexpo.com - info@xylexpo.com

Designed to (description of functionality):

TZM 1300 has been designed to provide perfect sanding of not only typical wood pieces, but also specific products that cannot be sanded with standard sanding machines by using KAMA-VISION which includes advanced digital image processing technology and artificial intelligence. It was ensured that the dimensions of the products to be processed were measured at optimum speed and high precision. Recognition of the products by the machine and the ability to automatically plan and make the selection of the type of the process which is specific to each product were supported and designed by KAMA-VISION technology that process digital camera data (RGB color space). The capability of the KAMA-VISION used in TZM 1300 is not only object detection with artificial intelligence and vision processing technology, but also recording the real-time image of the processed product and providing important data to the IoT such as product measurement and type.

This solution offers the following innovative features:

With the motto of 'opening the eyes of the machine', TZM 1300 offers fast, accurate and innovative solutions by using technologies and methodologies that have not been used before in wood machinery sector. TZM 1300 KAMA-VISION technology is able to define the geometrical features of the object with high accuracy by using an efficient object detection algorithm. KAMA-VISION presents an object detection system that is almost as capable as Lidar in two dimension, in addition; it provides image data that can be interpreted easily by operators. On the other hand, KAMA-VISION has the potential of being computer vision based quality control systems. Sensitive and accurate detection of products is one of the main focus of point for the sanding process, where precision is very important. TZM 1300, which is equipped by KAMA-VISION, can decide how to detect the product precisely and how the product will be processed. Regardless of the geometric shape of the product (circle, rhombus, trapezoid, frame, etc.), accurate and precise sanding route is calculated using image data, without the operator's need to enter the geometric shape or dimensioning of the product. It is possible to teach special products to the machine. The images of the taught product models can be viewed and used after training of the machine. Real-time images of the products are recorded as geometrically corrected images, and data such as operating parameters and the amount of processed products are recorded in the database together with the product images. In this way, the tracking of which products are processed with which parameters is supported by visual data that supplied from KAMA-VISION. The 8 orbital vibration units apply equal sanding pressure force on piece and sand equal amount of material throughout the sanding process on every point on surface of piece, despite the rough surface of the product by using an intelligent sanding system.

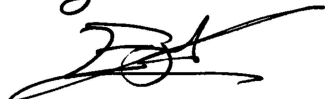
The award has been created to recognize innovative solutions presented at Xylexpo, therefore the jury will only consider solutions / activities launched after January 1st, 2020.

The applicant takes full responsibility for the statements contained herein and accepts that, in case of discrepancies and/or non-compliance, the nomination may be canceled and/or the prize withdrawn (if already assigned).

Put an X on the correct option:

Is this solution a "global preview"? YES NO
If NO, is it a new solution for the Italian market? YES NO
If NO, where was it presented for the first time?
In which year? : 2022 Is it currently in production? YES NO

Signature:

Ejder BAYIR


Place: Kocaeli / Istanbul

Date: 13.09.2022

For the purpose of evaluation by the jury, the applicant encloses the following documentation:

- TZM 1300 web page : <https://karabudakmakine.com/kr-yzm-1300-yuzey-zimpara-2/>
- Videos : https://www.youtube.com/watch?v=eVBmvGz_cX0
<https://www.youtube.com/watch?v=7Hm15cEJzm8>
- Photos, videos and gifs : in e-mail attachments

As required by the award call for nominations, the information herein shall be published on the following web site: www.xylexpo.com.

For any information about application procedures, or technical questions, please contact:

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For logistic and general information about the award organization, please contact:

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