



PRODUCT CATALOGUE

ABOUT US

Losonczi Innovation Ltd. was founded in 1995. We are and have always been a family business, now supported by the second generation and more than 30 employees. Our main profile is the design and manufacture of custom-made measuring machines, workpiece gripping devices, special cutting tools, tool holders and custom-made parts.



We strive to cover the entire production process with our products, in line with the needs of our customers. We design and manufacture devices needed for gripping workpieces, indexable cutting tools and the tool holders required for machining as well as the special measuring tools required for checking the entire operation. We also manufacture and design customised parts.

Our philosophy is based on continuous innovation and technological development. We believe that if you want something, you look for a solution, and not for excuses. And at Losonczi Innovation, we always strive to find the best possible solutions to our customers' technical challenges.



In recent years, we have completely renewed our production hall, where we now manufacture our custom-made products on 12 large manufacturing machines.

We recently purchased, among other things, two simultaneous five-axis machining centres, a Studer S31 CNC grinding machine, a G+H surface grinder, a Zeiss Contura coordinate measuring machine and three Kardex vertical storage systems.

OUR PARTNERS

Our main partners are automotive and machine parts manufacturers, as well as companies producing machined components for the energy and railway industries. Our regular customers include the following companies:



MEASURING INSTRUMENTS

AXIS PRO



In addition to the applied state-of-the-art technology, design is an increasingly important factor in the market of production line machines. And Losonczy Innovation Ltd. wanted to be among the firsts to present state-of-the-art technology in the adequate design. When designing the outer casing of the AXIS PRO measuring instrument, the company wanted the design to reflect the many years of engineering work invested in its development by the design team.



The electronics and pneumatics are housed in a closed drawer.



Proprietary METRIX touchscreen interface.



Award-winning design.



Expandable and adjustable version.

AXIS PRO^m

Measuring machine for the in-process measurement of axial parts
Year of manufacture: 2021

The AXIS PRO measuring instrument, the flagship product of Losonczy Innovation Ltd., is a computer-controlled evaluation instrument designed for measuring axial parts. It is also suitable for automatic or manual in-process inspection of machined parts, for the unique identification of workpieces, the inspection of measured values, the evaluation of results and the storage of data connected to the customer's computer network.

AXIS PRO is able to check and document all the required dimensions of all components within the cycle time, in accordance with the vehicle manufacturers' requirements. These dimensions include internal and external diameters, lengths, groovings, runouts, cylindricity, circularity and surface roughness. The measuring machine can check and record 20 to 30 different dimensions in less than a minute.

AXIS PRO uses a code reader to scan a unique QR code from each workpiece, which ensures the linking of measurement results to the identified part. If the dimension is near the limits of the tolerance zone, it sends a signal to the manufacturing machine, which makes the necessary corrections based on the values obtained. If the measured values are out of the specified tolerance zone, the measuring instrument signals to the operator or robot that the workpiece should be scrapped.

Measurable dimensions and geometric characteristics:



KEYENCE

Intel® NUC

METRIX



MEASURING INSTRUMENTS

HOUSING PRO

HOUSING PRO

Measuring equipment for measuring the gearbox housing and cover of electric drives
Year of manufacture: 2021

The HOUSING PRO measuring instrument was developed in 2021 by Losonczi Innovation Ltd. to monitor the gearbox in electric cars. The HOUSING PRO is able to check and document all required dimensions of all components within the cycle time, according to vehicle manufacturers' requirements. These dimensions include position, flatness, bore diameter, length and bore depth.

In each case, a master pattern is made for each measured part and placed on a fold-out holder next to the machine. This allows the operator to calibrate the machine at set cycle intervals, so that the HOUSING PRO measuring instrument can measure accurate values each time. The measuring instrument recognises the master pattern and only calibration can be performed with it.

How it works:

The operator inserts the workpiece manually through the opening on the measuring station, which is protected by a light curtain. The operator then indicates which machine the workpiece has been brought from, since the workpiece may come from several workstations. Finally, the operator starts the measurement using an external push-button.

The workpiece is clamped by the pneumatic clamping element onto the three fixed seats and a sensor checks whether the workpiece is in the correct measuring position. A QR code reader on the base plate identifies the workpiece. When the measurement is complete, the pneumatic clamp is released and the workpiece can be replaced.

Measurable dimensions and geometric characteristics:



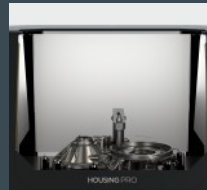
The METRIX measuring program is used to evaluate the values measured by the machine. In METRIX, all the measured values for each measured piece are stored and can be retrieved at any time.



Machine-mounted, fold-out master pattern holder.



Proprietary METRIX touchscreen interface.



Suitably sized opening for manual or robot-assisted mode.



Easy connection, in a box on the side of the machine.

KEYENCE

Intel® NUC

METRIX

MEASURING INSTRUMENTS

MASTER TOWER & MASTER BOX



MASTER TOWER

Table-top measuring unit without controller
Year of manufacture: 2021

The MASTER TOWER is a measuring unit without a controller, the control of which is integrated into a separate unit called the MASTER BOX. The advantage of this design is that when measuring several workpieces (if not all workpieces have to be measured at the same time) it is sufficient to have as many control units as the number of workpieces to be measured simultaneously.

How it works:

The operator inserts the workpiece manually into the centring element, which is placed in front of the measuring point protected by a light curtain. A sensor, and if required, a photo-sensor, checks that the workpiece has been inserted correctly, and if not, it does not allow the measurement to be started. The machine cleans the workpiece through a hole in the supporting surface before the measurement is taken. The operator then specifies which machine the workpiece to be measured was brought from and then starts the measurement using an external push-button.

Measurable dimensions and geometric characteristics:



MASTER BOX

External measuring instrument control unit
Year of manufacture: 2021

The MASTER BOX control unit is connected to the MASTER TOWER via USB, pneumatically and electronically. The BOX contains the control PC, PLC, air preparation unit, pressure regulator, vacuum unit, electronically controlled pneumatic valves, electrical connections, pneumatic pressure measuring unit (to control the inlet air), and the pressure of each pneumatic circuit separately.

The measured data can be checked on a monitor connected to the BOX. A special feature of the MASTER BOX control unit is that it can be freely connected to any MASTER TOWER measuring unit, thus extending its life cycle considerably. The control BOX can be expanded and upgraded in the future, thus saving considerable costs.

MEASURING DEVICES

MECHANICAL



COMMON RAIL SHAFT LENGTH MEASURING DEVICE

Common Rail pipe in-production inspection
Model: EB-0332
Year of manufacture: 2017

Losonczy Innovation's mechanical gauges are suitable for in-production and final inspection measuring operations. The simple design ensures a long service life and accurate operation throughout the measurement of each piece. The measuring devices can be fitted with any dial indicator. Go/ NoGo gauge design for simple operations. Hardened test pins are fitted in the position-ground holes of the base plate.

Features of mechanical measuring devices:

- a master pattern is made for gauge calibration.
- the measuring unit is moved on linear guideways
- good repeatability
- with a customized hardened contact point for the task in question
- spring loaded gauge pulling
- ground base plate
- calibration, repair and reconditioning of damaged or worn-out measuring instruments
- optionally supplied with or without a dial indicator
- in-house manufactured long angular head



AXIAL RUNOUT MEASURING DEVICE FOR COMMON RAIL BORE FACE

For checking the axial runout of the sealing surface
Model: EB-0601
Year of manufacture: 2020



BORING DEPTH MEASURING DEVICE

Differential case blind hole depth gauge
Model: EB-0396
Year of manufacture: 2017



POSITION CHECKING DEVICE

For checking the bore positions of the stub axle
Model: EB-0619
Year of manufacture: 2021

CMM FIXTURES



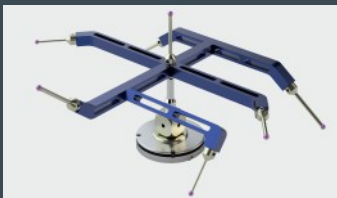
WATER PUMP IMPELLER CMM FIXTURE

Capable of fixing 24 different impellers.
Model: EB-0588
Year of manufacture: 2021



SWADRO CMM FIXTURE

For fixing two different parts.
Model: EB-0535
Year of manufacture: 2020



SPIDER STYLUS CONFIGURATION

By combining styli in a single configuration,
several components can be measured.
Model: EB-0569
Year of manufacture: 2020



ELECTRIC CAR TRANSMISSION UNIT CMM FIXTURE

For final inspection of two types of electric drive train
Model: EB-0579
Year of manufacture: 2020

The CMM fixtures allow quick and accurate measurements on the coordinate measuring machine. Exact workpiece orientation is ensured by the removable location pin, which does not interfere with the running of the measuring program. One fixture can fix multiple workpieces with a quick changeover. Based on the customer's specific requirements, Losonczy Innovation Ltd can manufacture CMM fixtures for a wide range of products and in a wide range of sizes.

Features and options of our CMM fixtures:

- several different types of workpieces can be fixed by reassembling the fixture
- removable workpiece location pin
- magnetic workpiece clamping
- rigid design
- ground base plate
- hardened seats
- aluminium base plate on hardened steel feet
- worn parts can be reordered

The configurations designed by combining the styli significantly reduce the measurement time. Lightweight aluminium bodies put less stress on CMM measuring heads.

Features and options of stylus configurations:

- expensive articulated or angled adjustable components can be replaced by custom-made configurations
- choice of any colour for easier differentiation

WORKPIECE GRIPPING DEVICES



HYDRAULIC CHUCK WITH SEATING CHECK

Model: ED-0090

Year of manufacture: 2017

Enclosure size/connection	645x160 - A11
Gripping wheel sizes:	Ø17.5"/Ø19.5"/Ø22.5"/Ø24.5"
Maximum draw pull:	70kN
Maximum speed:	1500 rpm

Hydraulic chuck suitable for smooth machining of light alloy rims on trucks. Thanks to the seating check, it can be easily integrated into the INDUSTRY 4.0 requirements. It can be fed robotically or manually. The pneumatic 3-point seating check prevents the machine from starting up if the operator or robot has not inserted the workpiece correctly. This reduces downtime and production defects, resulting in smoother production and lower costs.

Main features of the hydraulic chuck:

- can be adapted to the main spindle nose of the machine, with the ASA-A2-11"
- it has an integrated centrifugal force balancing system
- suitable for air seating check (preparation)
- balancing class G6.3
- the maximum runout of the workpiece in the chuck is 0.5 mm
- the chuck jaw is self-adjusting, so that all six hardened steel grippers can grip with equal force



CHUCK JAW AND LOCATING PIN SET

Model: ED-0134

Year of manufacture: 2021

Grip diameters:	Ø144, Ø184, Ø214, Ø244, Ø288
Chuck type:	SMW NT-RC 315
Number of grip points:	Six points

Multi-piece product line, chuck jaw, orientation and locating pin set designed for forged rough workpiece bore gripping. The chuck jaw family is suitable for holding Ø144, Ø184, Ø214, Ø244, Ø288 holes. Thanks to the quick-change jaw chuck, the chuck jaw and locating pin sets manufactured by Losoncz Innovation Ltd. minimise the changeover time between workpieces.

Main features of the chuck jaw and locating pin set:

- can hold seven different forged iron workpieces
- SMW quick-change jaw chuck supplied with interchangeable jaw chucks
- with interchangeable hardened steel grippers
- self-aligning chuck jaw
- indexing spring plungers
- hardened interchangeable inserts with stop elements

WORKPIECE FIXTURES



TURNABLE HYDRAULIC MILLING FIXTURE

For machining a range of parts
Model: EC-0028
Year of manufacture: 2017



TRUCK BRAKE CALIPER MACHINING FIXTURE

For four different brake calipers
Model: EA-1828
Year of manufacture: 2010



HYDRAULIC FIXTURE FOR MACHINING CENTRES

For fixing the turbocharger housing with seating check
Model: EC-0029
Year of manufacture: 2019



TRUCK STUB AXLE GRIPPING DEVICE

Two-cavity milling fixtures with hydraulic clamping
Model: EC-0032
Year of manufacture: 2019

Features and options of our workpiece fixtures:

- various types of workpieces can be fixed by reassembling the unit
- external hydraulic power supply connection or hydraulic connection via pallet
- integrated hydraulic pallet fixing
- pneumatic seating check
- hydraulic workpiece support
- clamping pressure monitoring and feedback to the machining centre
- multi-stage workpiece clamping
- multi-cavity milling machine design
- hydraulic fluid supply within the device
- worn parts can be reordered

INDEXABLE CUTTING TOOLS

TURNING TOOLS



INTERNALLY COOLED BORING BAR MADE OF TUNGSTEN-ALLOY

Customised boring bar for finishing the internal spherical surface of a differential housing.

Model: EK-0694
Year of manufacture: 2021
Optional shanks: VDI, HSK, PSC DIN ISO 26623 (Sandvik-Capto)

MILLING TOOLS



LONG EDGE CUTTER

16 inserts 4-edge special long edge cutter with dimensions $\varnothing 50 \times 76$.

Model: EM-0730
Year of manufacture: 2018
Optional shanks: Weldon, DIN 69871, MAS-BT, HSK, PSC DIN ISO 26623 (Sandvik-Capto) shanks

COUNTERSINKING TOOL



STEPPED COUNTERSINKING TOOL

Special indexable countersinking tool for step drilling. Champfering can be adjusted.

Model: ES-314
Year of manufacture: 2018
Optional shanks: Weldon, DIN 69871, MAS-BT, HSK, PSC DIN ISO 26623 (Sandvik-Capto)



BACK BORING TOOL

Double-edge back boring tool with Capto C5 connection.

Model: EK-0687
Year of manufacture: 2021
Optional shanks: VDI, HSK, PSC DIN ISO 26623 (Sandvik-Capto)



DISC MILLING CUTTER

Two-piece indexable disc milling cutter for milling stepped surfaces.

Model: EM-0735
Year of manufacture: 2019
Optional shanks: Weldon, DIN 69871, MAS-BT, HSK, PSC DIN ISO 26623 (Sandvik-Capto)



INDEXABLE HOLLOW MILL

Roughing hollow mill, $\varnothing 29.5 \times 20.8 / 1.25 \times 45^\circ$ for external cutting.

Model: ES-0328
Year of manufacture: 2019
Optional shanks: Weldon, DIN 69871, MAS-BT, HSK, PSC DIN ISO 26623 (Sandvik-Capto)

CUSTOMIZED TOOL HOLDERS

TURNING TOOL HOLDERS

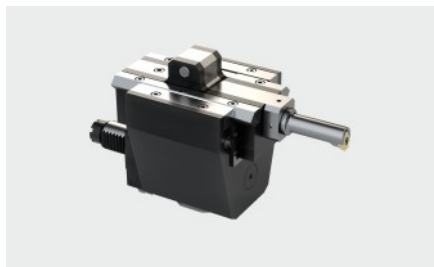


**PSC DIN ISO 26623 (SANDVIK-CAPTO)
WITH ADJUSTABLE ADAPTER TOOL
HOLDER**

Model: EE-0162
Year of manufacture: 2016

Main features:

- height adjustable tool tip
- tool clamping with slotted bushing
- cylindrical shank for tool clamping



VDI DRIVEN SLOTTING HEAD

Model: 30-022-09-D16-1
Year of manufacture: 2015
With VDI 30 or VDI 40 shanks

Main features:

- stroke rate max. 450/min.
- stroke length: 36 (55) mm with return lift function
- Suitable for locking grooves and internal and external gears

MILLING MACHINE TOOL HOLDERS



BIGPLUS TC-40 TOOL HOLDER

Model: EF-0801
Year of manufacture: 2019

Main features:

- turning tool holder for 5D CNC machining centre
- for shank PSC DIN ISO 26623 (Sandvik-Capto)
- requires additional drive on the main spindle



**HSK-A100 TOOL HOLDER WITH
ECCENTRIC TOOL EMPLACEMENT**

Model: EF-0742
Year of manufacture: 2015

Main features:

- for machining size $\varnothing 67$ for hollow milling
- for $\varnothing 25$ boring bar
- to replace turning operation



THIS CATALOGUE IS
ALSO AVAILABLE
ONLINE HERE:



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