Rubber open mixing mill INV-HSZ-400

Operation and Maintenance Manual

EC Declaration of Conformity

[Directive 2006/42/EC, Annex II, and Regulation

16/2008 (VIII.30.) NFGM, Annex 3]

1) Identification number: **2017/015**

2) Name and address of manufacturer: **Inventix Kutatóintézet Korlátolt Felelősségű Társaság**

1083 Budapest, Szigetvári utca 5., Hungary

3) Name and address of representative:

Inventix Kutatóintézet Korlátolt Felelősségű Társaság

Rabits Péter, managing director

1083 Budapest, Szigetvári utca 5., Hungary

4) Subject of declaration:

Type of machine:	**INV-HSZ-400**
Manufacturer serial no:	**INV-HSZ-400-001**
Name of machine:	**Rubber open mixing mill**
Use of machine:	**Producing different compounds for rubber industry**

5) The above-mentioned machine complies with the requirements of the following document(s) applicable to it:

Legal regulations:

Directive 2006/42/EC (17 May 2006) on machinery and the identical regulation, Decree 16/2008 (VIII.30.) of the Minister of Agriculture and Rural Development, on the safety requirements and attestation of conformity of machinery.

Harmonized standards:

MSZ EN 953+A1:2009 Protective guards. General rules for the design and installation of fixed and openable protective guards.

MSZ EN 1417:2015 Plastics and rubber machines. Mixers. Safety requirements

MSZ EN ISO 12100:2010 Safety of machinery. General principles for design. Risk assessment and risk reduction. (ISO 12100:2010)

MSZ EN ISO 13849:2016 Safety of machinery. Safety-related parts of control systems.

6) The declaration’s

Place: **Budapest,** Date:

2017. július 15.

Person authorized to prepare the declaration:

Rábits Péter, managing director

Inventix Kft.

Manufacturer:
INVENTIX Kft.
1083 Budapest,
Szigetvári utca 5.

USER MANUAL AND MAINTENANCE INSTRUCTIONS

INV-HSZ-400 TYPE MIXING EQUIPMENT

TECHNICAL SPECIFICATIONS AND SAFETY

Model:	INV-HSZ-400
Roller diameter:	400 mm
Roller width:	1000 mm
Number of rollers:	2 pcs
Number of gap adjustment motors:	2 pcs
Gap adjustment motor power:	2 kW
Three-phase motor, 380 V / 50 Hz power:	37 kW
Brake unit:	4 kW
Total weight (Approx.):	8000 kg
Distance between safety spacer bar and rollers:	900 mm
Depth:	1900 mm
Width:	2800 mm
Height:	1900 mm
Height between safety spacer bars:	1120 mm

<u>Warning!</u>

The instructions in this manual are for the use and maintenance of the equipment. They must be strictly followed by the operating and maintenance personnel!

Handling errors on the equipment can shorten its service life.

Figure 1: Rubber industry mixing mill data plate

Translation of the plate

Name	*Rubber mixing mill*
Type	*INV-HSZ-400*
Serial number	*INV-HSZ-400-1*
Date of manufacture	*2017*
Nominal power	*45 Kw three phase*
Voltage	*380V/400V*
Frequency	*50 Hz*
Weight	*8500 kg*

Technical description

- General description:

The mixing function is realized between the two cylinders, after the heating necessary to achieve the plastic state of the material fed between them from above. At the end of the cycle, the product is discharged from the cylinders.

- Details of the components of the equipment:

The two side plates holding the rollers and the gear unit are fixed to the base plate.

The base plate of the mixer is placed on a vibration-absorbing rubber pad, between the floor of the room and the vibrating machine.

The collected material is collected in a tray located under the rollers, from where it can be fed again.

The motor driving the rollers is located on the base plate.

The drive motor is connected to the drive system with V-belts to protect the machine.

Figure 2: Rubber industry open mixing mill control interface

Figure 3: Rubber industry open mixing mill control interface

Tools of the mixing mill

Cylinder gap adjustment device:

The front roller is movable, which is connected to the rear, fixed roller via an electromechanical device, a screw and the machine frame. The groups of moving elements of the equipment are displayed separately on the control panel and have their own drive motors.

The movement of the movable roller affects the temperature of the rubber compound. In the event of an accident, if dirt gets into the compound or if the lamination load increases too much, the gap between the rollers must be increased.

Excessive movement of the movable roller, exceeding 16 mm, is prevented by safety locks. The movement of the roller is indicated by two discs mounted on the machine.

Figure 4: Structure of a rubber mixing mill (Working side)

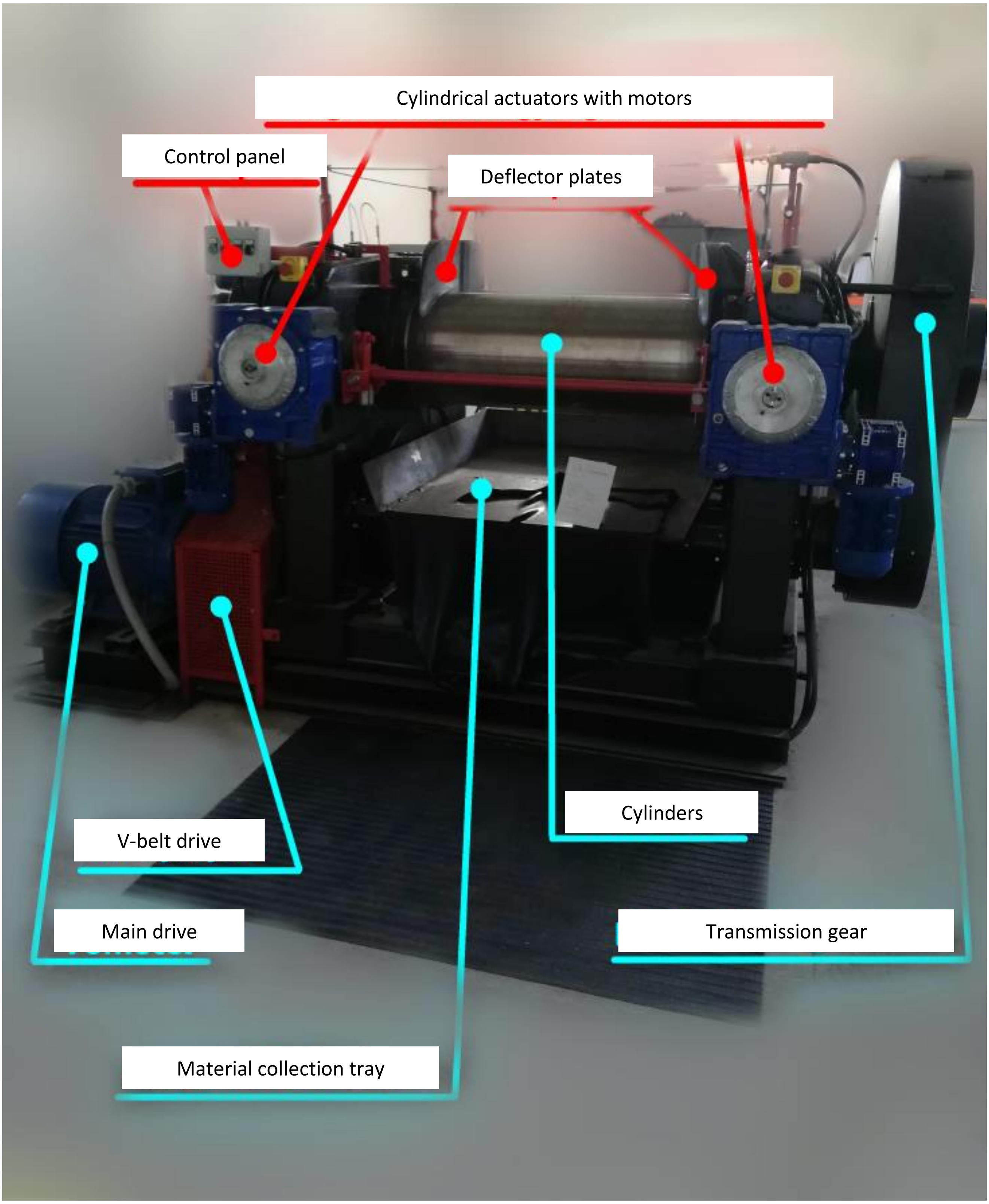

Figure 5: Rubber industry rolling mill structure