Certifico

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Technical data and methods of the machinery: Machinery 01

Name:	Machinery 01
Product:	M. - Machinery
Model:	Model 2018
Serial:	Serue 01/2018
Revision:	00 -
Year of construction:	2018
Directive:	Dir. 2006/42/EC (EN)
Manufacturer:	Certifico Srl - IT
Intended use:	Intended purpose
Description:	The machine in question is a hydraulic press brake. The reference technical standards are: UNI EN ISO 16092-3: 2018 Safety of machine tools - Presses - Part 3: Safety requirements for hydraulic presses and UNI EN ISO 16092-1: 2018.

Certification Procedure

The machinery complies Annex IV
1. Internal check for machinery production as Annex VIII.
2. EC Type examination as Annex IX.
3. Full quality assurance as Annex X.

CE Marking Process

Risk assessment

EN ISO 12100 — Safety of machinery - General principles for design - Risk assessment and risk reduction

Tool EN ISO 12100 | Standard
1. State of the machine | Operating condition
2. Hazardous situation
3. Hazardous event
4. Hazard zone
5. Initial risk evaluation
6. Inherently safe design measures
7. Safeguarding
8. Complementary protective measures
9. Information for use
10. Safety signs
11. Final risk evaluation
12. Residual risk
13. Technical standards applied
14. Notes
15. Related EHSR (Annex 1 Machinery Directive)

ISO/TR 14121-2 — Safety of machinery - Risk assessment - Part 2: Pratical guidance and examples of methods

The hybrid tool is described in section 6.5 of ISO/TR 14121-2.
The hybrid tool combines two of the methods described in the ISO/TR 14121-2. They are usually risk charts (qualitative tool) combined with matrices or scoring systems (quantitative method). The risk factors to be taken into consideration are the same as the tree method (gravity, frequency, probability, and avoidability) and each of them contains different levels to which correspond to different numerical weights. The method is applied as follows:
1. to estabilish the numerical weights for the severity, the frequency, the

Project:

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probability and the avoidability of the damage (see below the tables with the relative numerical weights);

2. add the three frequency, probability, and avoidance weights to determine the probability class "Cl" (Class) (Cl = Fr + Pr + Av);

3. insert the Gravity and Class dimensions into a weighting matrix;

4. calculate the risk by finding the intersection point of the row (Cl) with the column (Se) of the matrix.

Consequences / Severity		Class Cl (Fr+Pr+Av)					Frequency		Probability		Avoidance	
(Se)		4	5-7	8-10	11-13	14-15	(Fr)		(Pr)		(Av)	
Death, losing an eye or arm	4						<= 1h	5	Very high	5		
Permanent, losing fingers	3						> 1h to <= 24h	5	Likely	4		
Reversible, medical attention	2		?				> 24 to <= 2w	4	Possible	3	Impossible	5
Reversible, first aid	1						> 2w to <= 1y	3	Rarely	2	Possibile	3
							> 1y	2	Negligible	1	Likely	1

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