

Better than 3D-printed... MasterPrinted!



INGERSOLL

Machine Tools

CAMOZZI
GROUP

MasterPrint Continuous Filament

Program, Simulate, 3D Print and Overprint with Ingersoll Machine Tools' new Additive Manufacturing Robotic Solution.

MasterPrint Continuous Filament is Ingersoll Machine Tools' new family of continuous filament Additive Manufacturing equipment that provides your company with the ability to program, simulate, 3D-print new parts or overprint existing pieces.

MasterPrint Continuous Filament uses 6 axes industrial robots and a rotary table as 7th axis to accurately position a printing module consisting of a carbon fiber filament extruder, a touch-free material tensioning and an auxiliary general-purpose extruder (FFF, fused filament fabrication technology, patent pending).

MasterPrint Continuous Filament has been designed, built and tested at the Ingersoll U.S. headquarters in Rockford, Illinois, in partnership with the **University of South Carolina** (Columbia, SC) and **TIGHITCO** (Charleston, SC).

MasterPrint Continuous Filament is aimed at the *fast prototyping* and *durable tools* manufacturing needs of the aerospace sector, but can serve a wider market wherever printing and overprinting cheaply, quickly and reliably is required.



The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.



MasterPrint Continuous Filament differentiates from the competitors' line-up through **core-distinctive features** that have made Ingersoll's products easily recognizable and greatly appreciated by the market

1. Flexibility

ability to print brand new complex geometries or overprint pieces produced with equipment other than Ingersoll's (alien parts)



INGERSOLL

Machine Tools

The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.

CAMOZZI
GROUP

MasterPrint Continuous Filament 's core-distinctive features

2. Siemens 840D

the standard control for the manufacturing industry, well known by all your operators and maintenance crews:

- Controls all 7 axes for smooth synchronous printing
- Controls extruder motors, heaters, tensioners
- Manages safety guarding and Cartesian Monitoring



INGERSOLL

Machine Tools

The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.

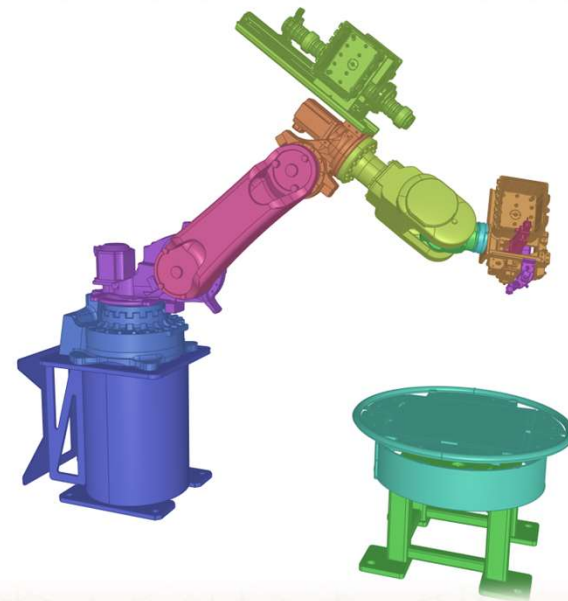
CAMOZZI
GROUP

MasterPrint Continuous Filament 's core-distinctive features

3. seamless programming environment

a comprehensive SW suite to seamlessly program and simulate all manufacturing operations, covering:

- Toolpath generation
- Post-processing
- Machine simulation
- NC Program creation



INGERSOLL

Machine Tools

The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.

CAMOZZI
GROUP

MasterPrint Continuous Filament's core-distinctive features

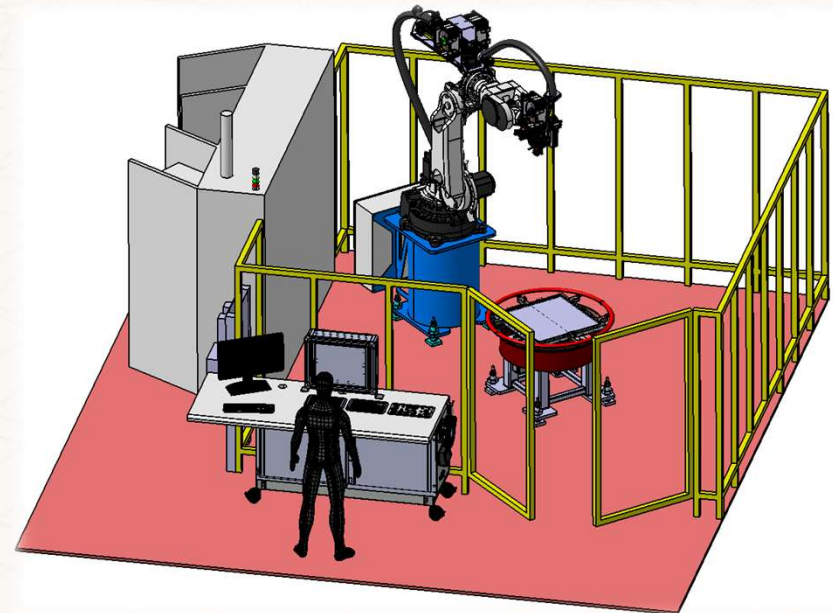
4. Simplicity, Safety and Ergonomics

no large enclosures, but **open-air printing**

perimeter guarding for total protection.
Safe, easy and convenient access to the
workzone in *maintenance mode* with HT8
control pendant

zone management

single robot operating in multiple zones
multiple robots sharing multiple zones



INGERSOLL

Machine Tools

The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.

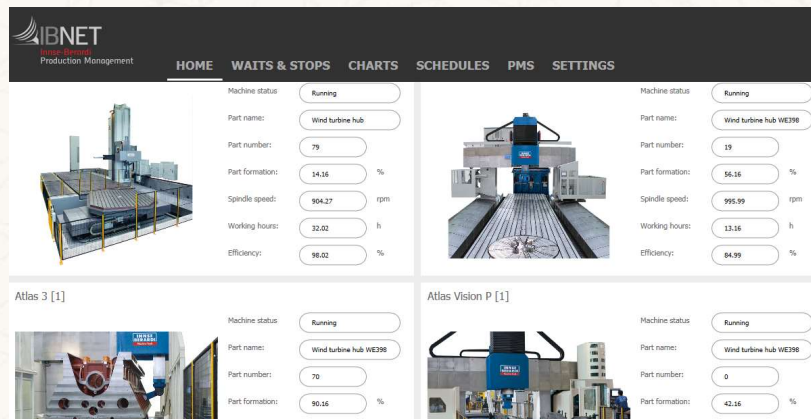
CAMOZZI

GROUP

MasterPrint Continuous Filament's core-distinctive features

remote process/equipment monitoring and
pre-emptive maintenance with **Ingersoll IB-
NET**

compliance with **U.S. and E.U. (CE) regulations
and certifications**



INGERSOLL

Machine Tools

The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.

CAMOZZI
GROUP

MasterPrint Continuous Filament 's core-distinctive features

5. Pre Sale and Post Sale support

Pre-sale

Print/overprint your part with **MasterPrint Continuous Filament** at Ingersoll's Development Center

Let your operators and maintenance crews experience **MasterPrint Continuous Filament** at Ingersoll's Development Center

Post Sale

develop your 3D print process with **MasterPrint Continuous Filament** at Ingersoll's Development Center before receiving your **MasterPrint**

train your operators and maintenance crews with **MasterPrint Continuous Filament** at Ingersoll's Development Center before receiving your **MasterPrint**

develop the 3D print process of new parts on your new **MasterPrint Continuous Filament** with the support and supervision of Ingersoll's Process Engineers at your site

INGERSOLL

Machine Tools

The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.

CAMOZZI
GROUP

Ingersoll Machine Tools Inc.

Since its inception in 1891, **Ingersoll Machine Tools Inc.** has been an iconic name in the **milling machines** sector, serving successfully the defense and then the newborn aeronautics / aerospace industry.

During the 1990s Ingersoll pioneered the **automatic fiber placement** and the **automatic tape laying** technologies for composite manufacturing, and became one of the leaders for this market after its acquisition by the European holding **Camozzi Group** in 2003.

By 2015, the expertise, methodologies and techniques acquired in developing composite manufacturing served as an extraordinary and effective technological springboard that allowed Ingersoll to enter the **additive manufacturing** sector and to immediately diversify from the competition with its offer of **wide-and-high additive manufacturing (WHAM) 3D printers** that completes and complements its composite and subtractive products portfolio.



INGERSOLL

Machine Tools

The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.

CAMOZZI
GROUP

Ingersoll Machine Tools Inc.

707 Fulton Ave
Rockford
61103 – Illinois
United States
+1 815 987 6000

info@ingersoll.com
www.ingersoll.com

LinkedIn Page: Ingersoll Machine Tools
YouTube Channel: Ingersoll Machine Tools

INGERSOLL

Machine Tools

The information contained in or otherwise included with or attached to this message, to the extent it is non-public, is the confidential, proprietary information of Ingersoll Machine Tools, Inc. and, in addition to any restrictions that may apply pursuant to the terms of any Confidentiality or Non-Disclosure Agreements between Ingersoll and the recipient (or the recipient's employer), may not be reproduced, disclosed to any third party or used by the recipient, for other than the intended purpose for which it was provided to the recipient, without the prior written approval of Ingersoll Machine Tools, Inc.

CAMOZZI
GROUP