

# ADDING INTELLIGENCE TO 3D PRINTING CONNECTIONS

*QUICK DISCONNECT COUPLINGS*

**CONNECTING INTELLIGENTLY  
IN ADDITIVE MANUFACTURING**

[cpcworldwide.com/additive-manufacturing](http://cpcworldwide.com/additive-manufacturing)





# ADDING INTELLIGENCE TO 3D PRINTING CONNECTIONS

According to the Wohlers Report 2021, the Additive Manufacturing Industry is expected to grow by 25% annually, reaching \$100B by 2030. AM 2.0 - The shift from prototype to mass production use is driving this growth. With the shift comes the need for intelligent material handling.



## THE SHIFT TO AM 2.0

As the Additive Manufacturing industry moves further into applications that produce end use parts, maximizing production throughput becomes a key metric.

Elevating additive manufacturing to the next level requires large build volumes, world class machine uptime, and system ease of use. Handling the large volume of print material in an intelligent way enables the shift to mass production.

### MATERIAL TO MACHINE APPLICATIONS FOR QUICK DISCONNECT COUPLINGS

RFID ENABLED CONNECTION BETWEEN MATERIAL AND MACHINE

BULK MATERIAL DELIVERY (DRUMS, JUGS, BOTTLES, TANKS, FLEXIBLE PACKAGING, BIB)



### MACHINE APPLICATIONS FOR QUICK DISCONNECT COUPLINGS

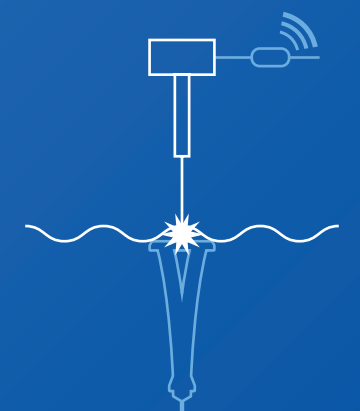
MATERIAL TRANSFER TUBES

IN-LINE FILTERS

LIQUID DEGASSERS

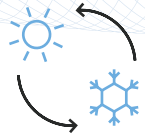
THERMAL MANAGEMENT OF BUILD CHAMBER, LASERS OR UV LAMPS

INERT GAS TRANSFER FOR BUILD CHAMBER



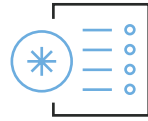


## YOUR CHALLENGES



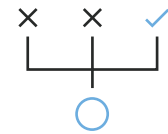
### HIGH PRODUCTION THROUGHPUT

Although applications range across many industries - equipment needs to sustain high throughput. Let us help you maximize machine uptime with dependable connections that allow for quick material fills, fast and efficient change overs, and improved serviceability.



### MATERIAL AUTHENTICATION

Developing industrial grade materials for functional parts is one of the keys to success for mass production, we can help ensure you're protecting those proprietary materials.



### EASE OF USE

Operating new technology and navigating new processes can be daunting for users. CPC offers intuitive and intelligent couplings that can transfer data to the machine so operational processes can be automated.

## INNOVATION AND EXPERTISE PUT TO WORK FOR YOU

CPC believes innovation is the result of collaboration. Our engineers, working closely with your team, help solve challenges and get your printers back to work faster. Partner with a company that has 40 years' experience working through thousands of material handling scenarios. Our highly knowledgeable experts can help you identify your challenges and recommend solutions for you to consider. Trust us to create connections for your 3D printing systems.

Collaborating early in the design process empowers you to find the perfect connector for your needs and a partner for the long haul.

Connect with our team of engineers to discuss solutions for:

- Electrical connections
- Filtration
- Weight Sensing
- Level Sensing



[www.cpcworldwide.com/  
Capabilities/Custom-  
Designs-Solutions](http://www.cpcworldwide.com/Capabilities/Custom-Designs-Solutions)

## OUR SOLUTIONS



### DEPENDABLE DURABILITY

Built to manage the wide range of additive materials used by 3D printing equipment, CPC connectors feature flush face valves designed for mess-free, drip-free disconnections necessary for efficient reloading of consumable materials.



### TECHNOLOGY ENABLED

Proprietary materials are becoming more important to developing high performing parts and enabling the production of end-use parts. CPC's intelligent couplings with integrated RFID and visual keying capabilities help prevent the use of unauthorized materials, correctly set operational controls and maintain an accurate record of process steps.



### MAXIMUM VERSATILITY

We offer a wide portfolio of solutions with standard products manufactured in a variety of sizes that are trusted by the world's leading Additive Manufacturing OEMs. Engineered solutions are available for unique needs.





# CONNECTIONS SUPPORTING SAFE, INTELLIGENT, AND EFFICIENT MATERIAL HANDLING

Proprietary materials are becoming more important to developing higher performing parts and enabling the production of end-use parts. CPC's Universal Dispensing Couplings with integrated RFID technology help 3D printer manufacturers protect their revenue stream by preventing the use of unauthorized materials and authenticating the use of proprietary or certified materials. The RFID technology is seamlessly integrated into the connection point, so it automatically reads as containers are loaded into machines. The RFID readers also have the ability to provide an expanded menu of data reading options, from level sensing to eliminate the unauthorized refilling of containers to validating the material in the container is the same as in the build chamber.

## IDENTIQUIK - INTELLIGENT QUICK DISCONNECT COUPLINGS

IdentiQuik couplings allow the robust transfer of fluid and information in a limitless number of applications. The intelligent technology allows for brand protection, minimized misconnections, prolonged equipment life and increased efficiencies.



## HFC SERIES

HFC Series connectors are able to withstand demanding applications and feature physical strength, chemical resistance and autoclavability.

With an ergonomic design the HFC connectors are easy to grip and simple to operate. The efficient valve design leads to high flow and exceptionally low spillage.



## NS SERIES

NS series connectors reduce spillage to near zero when the couplings are disconnected.

NS couplings are available in a wide range of sizes and configurations and are ideal for use in 3D printing applications.



## BULK MATERIAL HANDLING

CPC dispensing couplings and connectors save time and reduce the risk of chemical exposure while minimizing material loss or waste. They are engineered to help improve the performance of 3D Printing applications.



Drumquik® pro



UDC

## PMC/PLC

PMC and PLC connectors offer a wide selection of sizes and configurations. They are injection molded from acetal thermoplastic and are resistant to most chemical solutions.



## MC/LC

MC and LC connectors are chrome-plated brass couplings are built tough and made to last. They are ideal for use in high temperature applications.



## EVERIS™ LQ SERIES

Purpose-built liquid cooling non-spill chrome-plated brass couplings offer a secure, reliable connection and dripleless disconnect.



Everis™ LQ2

Everis™ LQ4

Everis™ LQ6

Everis™ LQ8



Colder Products Company®

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CPC WARRANTY STATEMENT: CPC (Colder Products Company) warrants its products against defects in workmanship and materials for a period of 12 months from the date of sale by CPC to its initial customer (regardless of any subsequent sale of the products). This warranty is void if the product is misused, altered, tampered with or is installed or used in a manner that is inconsistent with CPC's written recommendations, specifications and/or instructions, or fails to perform due to normal wear and tear. CPC does not warrant the suitability of the product for any particular application. Determining product application suitability is solely the customer's responsibility. CPC is not liable for special, indirect, incidental, consequential or other damages including, but not limited to, loss, damage, personal injury, or any other expense directly or indirectly arising from the use of or inability to use its products either separately or in combination with other products. ALL OTHER WARRANTIES EXPRESS OR IMPLIED, WHETHER ORAL, WRITTEN OR IN ANY OTHER FORM, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED. The sole and exclusive remedy under this warranty is limited, at the option of CPC, to replacement of the defective product or an account credit in the amount of the original selling price. All allegedly defective CPC products must be returned prepaid transportation to CPC, together with information describing the product's application and performance, unless otherwise authorized in writing by CPC.

CPC PATENT STATEMENT: CPC takes pride in its innovative quick disconnect coupling and fittings solutions, many of which have been awarded United States and international patents. CPC has a strong tradition of leadership in the quick disconnect market, and aggressively pursues and protects its proprietary information and intellectual property. In cases where it is practical and has a benefit to its customers, CPC has licensed its proprietary technology. Please contact CPC to discuss your unique needs.

CPC TRADEMARK STATEMENT: AseptiQuik®, BottleQuik®, BreakAway®, ChemQuik®, DrumQuik®, FitQuik®, IdentiQuik®, Nu-Seal®, SnapQuik®, Steam-Thru®, Softube® are registered trademarks with the U.S. Patent & Trademark Office. All other trademarks or service marks are property of their respective owners.

WARNING: Due to the wide variety of possible fluid media and operating conditions, unintended consequences may result from the use of this product, all of which are beyond the control of CPC. It is the user's responsibility to carefully determine and test for compatibility for use with their application. All such risks shall be assumed by the buyer.

CAT3002 7/22

# INNOVATION BORN FROM EXPERIENCE.

For over 40 years, CPC has been a leading provider of quick disconnect couplings, fittings and connectors. We offer solutions for industrial, medical, biopharma and liquid cooling applications.

By synthesizing our learnings from such a wide variety of disciplines, we are able to innovate in unexpected ways, anticipate future challenges and bring you the best purpose-built solutions.

## WANT TO COLLABORATE?

Visit us online to access our interactive web tools

- ASK AN ENGINEER
- PRODUCT SPECIFIER
- WHITE PAPERS
- CAD FILES

## KNOW EXACTLY WHAT YOU'RE LOOKING FOR?

Great, let's get down to business. Just call or e-mail us at [info@cpcworldwide.com](mailto:info@cpcworldwide.com) to start the conversation.

[VISIT US AT CPCWORLDWIDE.COM TO GET STARTED.](http://CPCWORLDWIDE.COM)

# WE INSPIRE CONFIDENCE AT EVERY POINT OF CONNECTION.