



DRIVEN BY POSSIBILITY™

GATES DATA CENTER COUPLINGS

ENGINEERED FLOW FOR HIGHER COOLING CAPACITY

The transition from air to liquid cooling introduced a complexity the data center industry had never faced: fluid handling at every layer of the racks.

Gates mapped the modern liquid cooling loop interface by interface, identifying the unique mechanical and operational demands of each junction. From the server tray to the facility main, we offer three product types that match the environment they occupy, because the right connection is not just about fit and function. It's about flow.

THE GATES DIFFERENCE

- Industry-leading flow co-efficients
- Interchangeable with other OCP-compliant and form-factor designs
- Reliability and quality are designed into our products to maximize coolant distribution
- Complete flow solution of hoses, couplings, and pumps to optimize your data center

GATES DATA CENTER COUPLINGS LINEUP

Gates has existing fluid conveyance and power transmission solutions to power your Data Center. From pumps and flexible hoses to premium belts and assemblies, Gates is ready to provide you with the reliability and performance you need.



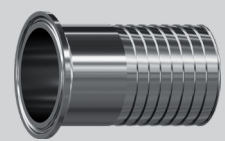
NEXT-GEN UQD



UQD



UQDB




SANITARY FLANGE

IN-RACK SOLUTIONS

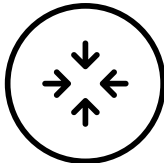
UNIVERSAL QUICK DISCONNECT (UQD)

THE HIGH-PRESSURE WORKHORSE

Gates UQD is an OCP-compliant, purpose-built solution for high performance data centers. With maximum flow, reliable sealing, and compatibility with the Gates Data Master™ hose line, ensure the right configuration every time.



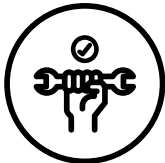
Enables server swaps without draining loops



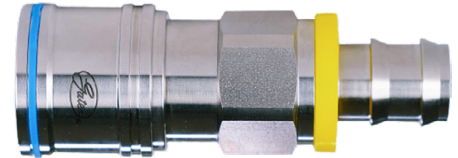
Full CV values published for all sizes for predictable system design



Compatible with OCP standards for hyperscale rack ecosystems



Superior corrosion resistance to maintain fluid purity



TECHNICAL FEATURES

- **Nominal sizes:** UQD02–UQD08 (DN3 to DN10)
- **Max. working pressure:** 290 psi (20 bar)
- **Min. burst pressure:** 1,160 psi (80 bar)
- **Operating temperature:** -40 °F to 248 °F (-40 °C to 120 °C)
- **Materials:** 316L Stainless Steel
- **For use with:** Gates Data Master and Data Master Eco hose lines
- **Color options:** Blue and red

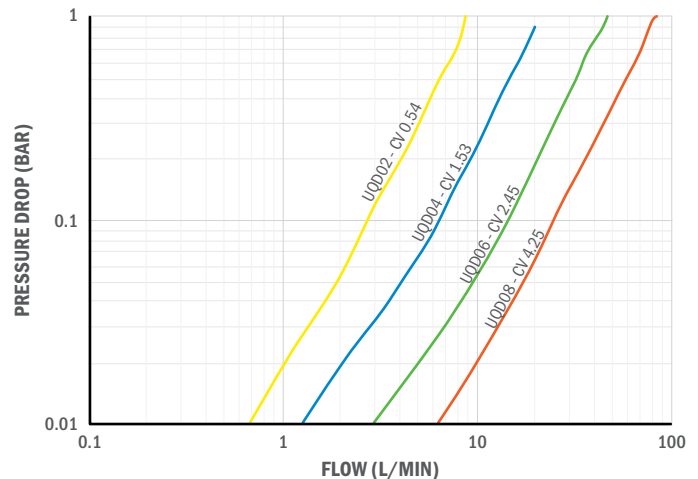
GATES UQD CATALOG CHART

PRODUCT CONFIGURATION	BODY SIZE	NOMINAL FLOW DIAMETER	FLOW RATE	TYPICAL USE
UQD02	1/8	03	0.6	Low-flow D2C
UQD04	1/4	05	1.7	Standard D2C
UQD06	3/8	07	3.0	High-power CPUs
UQD08	1/2	10	4.7	High-power CPUs

UQD CONFIGURATIONS

Whether you need barbed fittings for flexible tubing or threaded terminations for rigid systems, Gates offers the right connection to ease the flow of coolant and consistency to your data center. And with four sizes (UQD02 to UQD08), scaling your cooling infrastructure has never been easier.

	UQD02	UQD04	UQD06	UQD08
Nominal Flow Diameter (mm)	03	05	07	10
Minimum CV	0.54	1.53	2.45	4.25
Force to Connect (N) at 0 psi	34.5	44.4	54.6	70.1
Force to Connect (N) at 100 psi	64.5	110.4	170.0	251.0

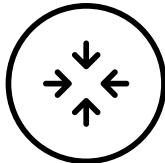
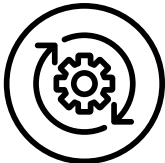

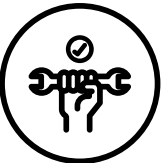


IN-RACK SOLUTIONS

UQD BLIND MATE (UQDB)

THE SERVER-TO-MANIFOLD INTERFACE

When connections are critical to the success of your operation, trust the ease of use that comes with Gates Blind Mate Couplings, with no hoses to disconnect or reconnect and self-centering with +/- 1mm of tolerance to allow for slight misalignment.

 <p>Blind-Mate technology with ± 1 mm misalignment tolerance</p>	 <p>Automatic Shut-Off that enables hot-swap maintenance without draining manifolds</p>	 <p>Low ionic contamination for water and deionized water loops</p>	 <p>Eliminates the need for manual QD connection at the back of the rack</p>
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TECHNICAL FEATURES

- **Connection tolerance:** ± 1 mm self-centering
- **Shut-off type:** Automatic (zero-spill)
- **Thread interface:** ORB (O-Ring Boss)
- **Materials:** 316L stainless steel body, EPDM seals
- **Compliance:** OCP-aligned dimensions

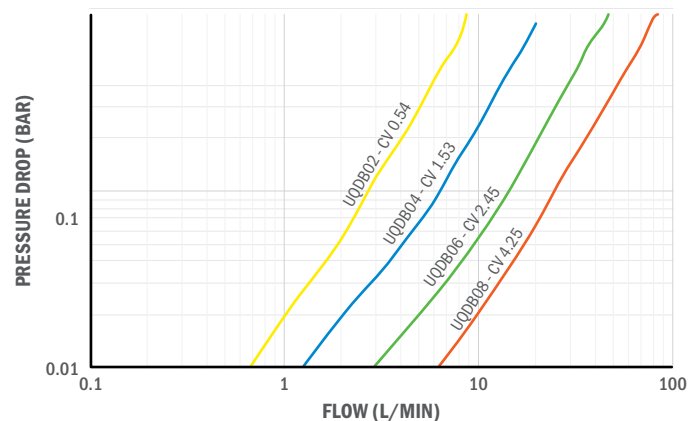
GATES UQD CATALOG CHART			
PRODUCT CONFIGURATION	BODY SIZE	NOMINAL FLOW DIAMETER	TYPICAL USE
UQD02	1/8	03	Rack-to-manifold connection
UQD04	1/4	05	Rack-to-manifold connection
UQD06	3/8	07	Rack-to-manifold connection
UQD08	1/2	10	Rack-to-manifold connection

BLIND MATE PRESSURE DROP

With a similar design to Gates UQD, expect the same high performance flow rates regardless of which component you choose for your cooling system. Gates UQDBs have one of the highest flow co-efficients in the market.

	UQDB02	UQDB04	UQDB06	UQDB08
Nominal Flow Diameter (mm)	03	05	07	10
Minimum CV*	0.56	1.53	3.05	3.73
Force to Connect (N) at 0 psi	40	50	72	89
Force to Connect (N) at 100 psi	92	135	193	267

*Flow from plug to socket using water.

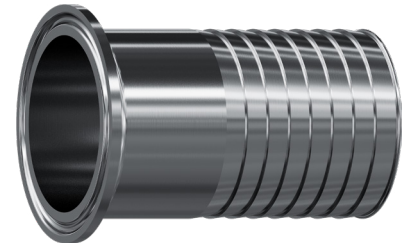


WHAT'S NEXT FOR GATES DATA CENTER COUPLINGS?

SANITARY FLANGE COUPLINGS

TECHNICAL SPECIFICATIONS

Application	Supply lines and CDU connections
Available sizes	1", 1.5", 2", 3", 4"
Maximum working pressure	Varies, choose product in excess of hose psi rating
Operating temperature range	Dependent on the EPDM gasket used
Specific Data Center values	Common industry connection used in both rigid pipe and hoses, designed for high flow and easy clamp-together interfaces



FEATURES AND BENEFITS

STAINLESS STEEL	COOLANT-COMPATIBLE	WIDE MATING COMPATIBILITY	LEAK-FREE CONNECTIONS	ASSEMBLIES AVAILABLE
For extreme corrosion-resistance and durability	Stainless steel materials and EPDM gaskets are compatible with a wide range of coolants including water-based and glycol-based fluids	Designed to common hose stem and flange sizes for easy mating	Add hose clamps or crimped ferrules for more secure, leak-free hose assemblies	Gates offers Data Master MegaFlex and sanitary flange coupling assemblies for faster on-site installation

GATES NEXT-GEN UNIVERSAL QUICK DISCONNECT (UQD)

COMPACT, DRY-BREAK RACK-LEVEL CONNECTIVITY

Ensure constant cooling for your high-density racks by controlling pressure drop and eliminating accidental spillage during disconnection. The Next-Gen UQD protects critical equipment from damage and supports high flow cooling loops.

<p>Compact design for dense server sleds and manifolds</p>	<p>Compatible with OCP-V2 standards for hyperscale rack ecosystems</p>	<p>Connect/disconnect with no spillage for IT gear service</p>	<p>Optimized for frequent IT maintenance connections</p>
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GATES DATA CENTER SOLUTIONS PORTFOLIO

Gates has existing fluid conveyance and power transmission solutions to power your Data Center. From pumps and flexible hoses to premium belts and assemblies, Gates is ready to provide you with the reliability and performance you need.

<p>DATA MASTER COOLING HOSE</p>	<p>DATA MASTER MEGAFLEX</p>	<p>DATA MASTER ECO</p>	<p>DATA CENTER COUPLINGS</p>	<p>DATA CENTER PUMPS</p>	<p>BELTS FOR AIR-DRIVE SYSTEMS</p>
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