

Universal Quick Disconnect UQD & UQDB

Thermal management



Application examples

- High-performance computers
- Data centers (AI)
- Internet switch

Summary

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KICKER

Universal Quick Disconnect, for safe systems and no downtime



Fluids

- Glycol water
- Liquid cooling

Key advantages



Drip rate lower than OCP standard requirements



Safety of systems and operators



Easy operation



Adapted to high density systems

How Stäubli increase your performance

Cleanliness and safety of your facilities

The Stäubli flat face couplings allow a perfect sealing, without dripping and air introduction, during the phases of connection/ disconnection.

Perfectly adapted to high density systems

- Blade connection
- Individual connection of cold plates inside the blade (GPU/CPU)

Easy and quick to handle

Stäubli opted for an automatic UQD to facilitate the connection phases.

Choose Stäubli



10 years of experience in IT Cooling



Global footprint
Many production facilities



30 years of experience in electronic liquid cooling



The opportunity to spend less and contribute to a sustainable development program

With Stäubli, you can rely on:

- the performance of your equipment
- reliability of long-term investments
- no workplace pollution




Success story



HAND MATE

Technical characteristics

	UQD 02	UQD 04	UQD 06	UQD 08
Nominal diameter DN (mm)	03	06	07	10
Maximum allowable pressure PS (bar)	16			
Minimum and maximum allowable temperatures TS (°C)	-20 and +150			
Shut-off: double				



Patent pending

Construction

Type of seal

- Ethylene-Propylene (EPDM), JE code.

Important!

The use and any contact of the Ethylene-Propylene (EPDM) seal with fluids of mineral origin (oil, fat... etc.) are not advised.

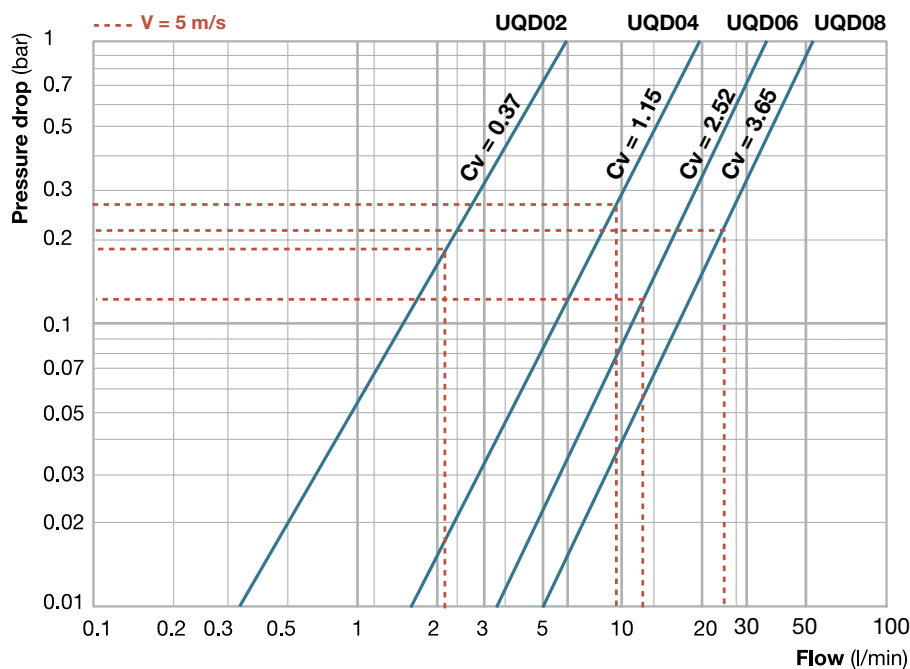
Material

Stainless steel.

Flow for a speed of 5 m/s :

- 2.12 l/min for UQD 02
- 8.48 l/min for UQD 04
- 11.55 l/min for UQD06
- 23.56 l/min for UQD08

Hydraulic flow rate / pressure drop charts



Test conditions

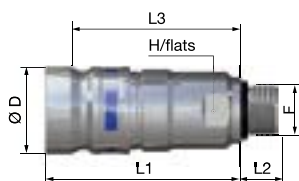
- Fluid: water
- Density: 998 kg/m³ ; viscosity: 1,08 cSt
- Direction of flow: socket → plug



HAND MATE

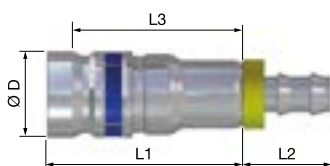
Part-numbers

Socket,
UN male thread



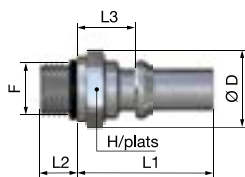
Fitting F	Dimensions (mm)					Part numbers
	Ø D	L1	L2	L3	H/flats	
UNF 7/16-20"	18.5	40.8	9.1	35.7	15	UQD02.1411/UN/JE/KR
						UQD02.1411/UN/JE/KB
UNF 9/16-18"	24	54.8	10	48.7	19	UQD04.1414/UN/JE/KR
						UQD04.1414/UN/JE/KB
UNF 3/4-16"	29.5	58.9	11.1	52.1	24	UQD06.1419/UN/JE/KR
						UQD06.1419/UN/JE/KB
UNF 7/8-14"	32.5	63.9	12.7	56.8	27	UQD08.1422/UN/JE/KR
						UQD08.1422/UN/JE/KB

Socket
for hose



Fitting F	Dimensions (mm)					Part numbers
	Ø D	L1	L2	L3	H/flats	
Hose 1/4"	18.5	40.5	21	35.4	-	UQD02.1806/CN/JE/KR
						UQD02.1806/CN/JE/KB
Hose 3/8"	24	54.3	24.5	47.7	-	UQD04.1810/CN/JE/KR
						UQD04.1810/CN/JE/KB
Hose 1/2"	29.5	60.4	29	53.6	-	UQD06.1813/CN/JE/KR
						UQD06.1813/CN/JE/KB
Hose 5/8"	32.5	63.9	36.5	56.8	-	UQD08.1816/CN/JE/KR
						UQD08.1816/CN/JE/KB

Plug,
UN male thread



Fitting F	Dimensions (mm)					Part numbers
	Ø D	L1	L2	L3	H/flats	
UNF 7/16-20"	16.5	28	9.1	12.5	15	UQD02.7411/UN/JE/KR
						UQD02.7411/UN/JE/KB
UNF 9/16-18"	21	37.5	10	16	19	UQD04.7414/UN/JE/KR
						UQD04.7414/UN/JE/KB
UNF 3/4-16"	26.5	40.5	11.1	15.5	24	UQD06.7419/UN/JE/KR
						UQD06.7419/UN/JE/KB
UNF 7/8-14"	30	46	12.7	17	27	UQD08.7422/UN/JE/KR
						UQD08.7422/UN/JE/KB

Visual marking

Blue /KB or red /KR marking.

Dimension in connected position

Total length: L3 socket + L3 plug.



BLIND MATE

Technical characteristics

	UQDB 04
Nominal diameter DN (mm)	06
Maximum allowable pressure PS (bar)	16
Minimum and maximum allowable temperatures TS (°C)	-20 and +100
Maximum misalignment	0,8 mm



Patent pending

Construction

Type of seal

- Ethylene-Propylene (EPDM), JE code.

Important!

The use and any contact of the Ethylene-Propylene (EPDM) seal with fluids of mineral origin (oil, fat... etc.) are not advised.

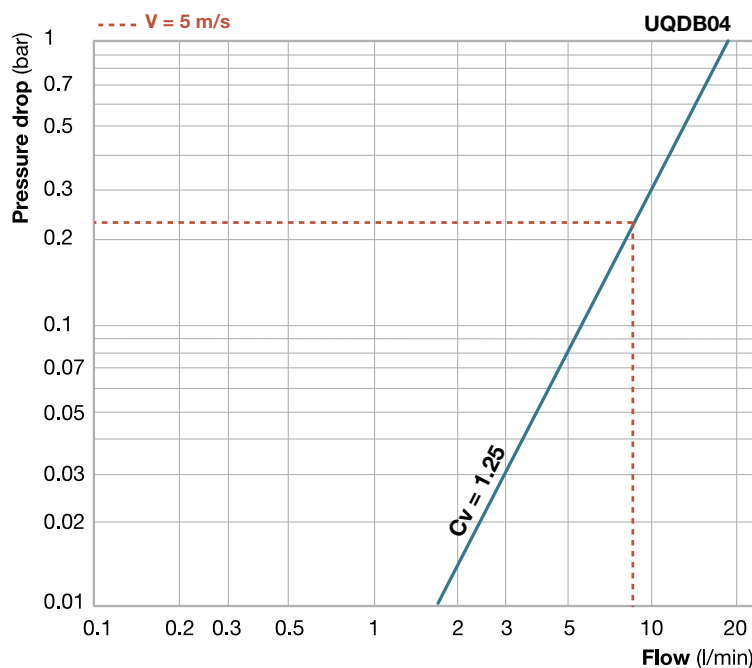
Material

Stainless steel.

Flow for a speed of 5 m/s :

- 8.48 l/min for UQDB 04

Hydraulic flow rate / pressure drop charts



Test conditions

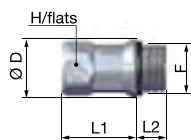
- Fluid: water
- Density: 998 kg/m³ ; viscosity: 1,08 cSt
- Direction of flow: socket → plug



BLIND MATE

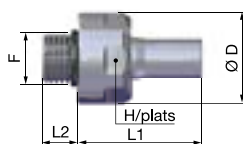
Part-numbers

Socket,
UN male thread



Fitting F	Dimensions (mm)				Part numbers
	Ø D	L1	L2	H/flats	
UNF 3/4-16"	22.3	28.5	11.2	19	UQDB04.2419/UN/JE

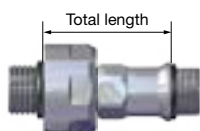
Plug,
UN male thread



Fitting F	Dimensions (mm)				Part numbers
	Ø D	L1	L2	H/flats	
UNF 9/16-18"	25.4	35.4	10	24	UQDB04.5414/UN/JE

Dimension in connected position

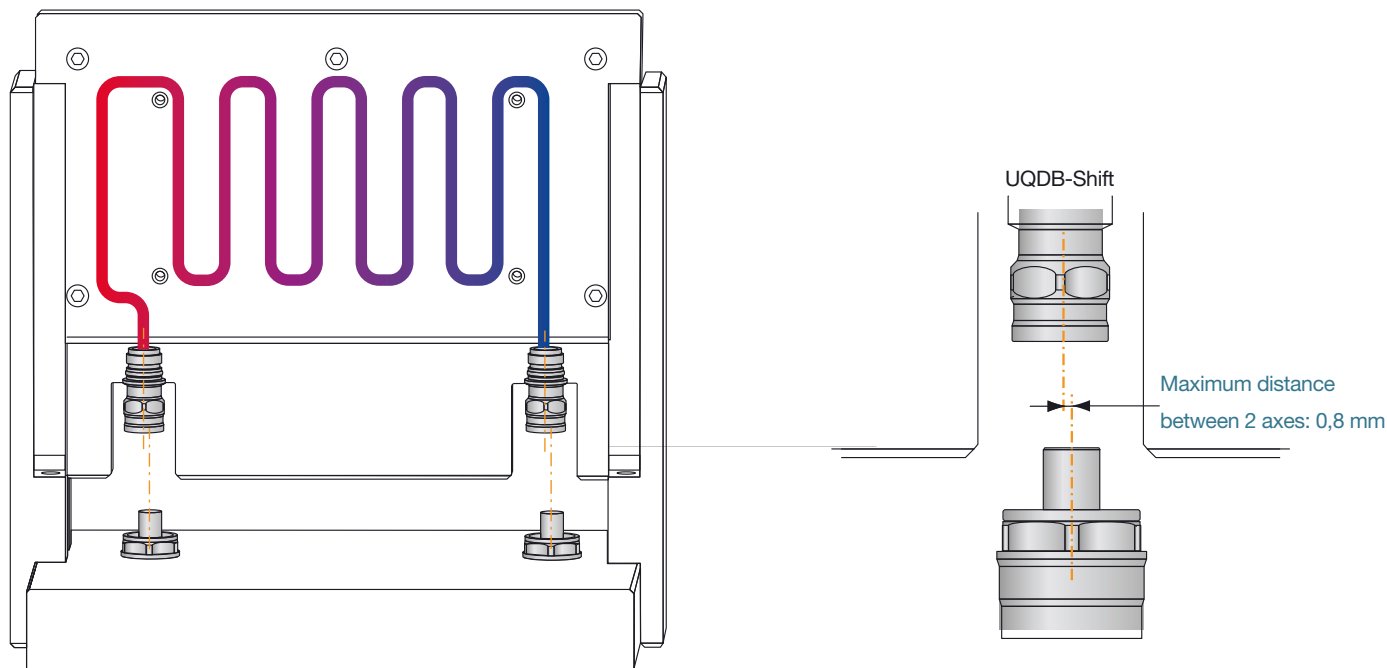
Total length: 44.6



BLIND MATE

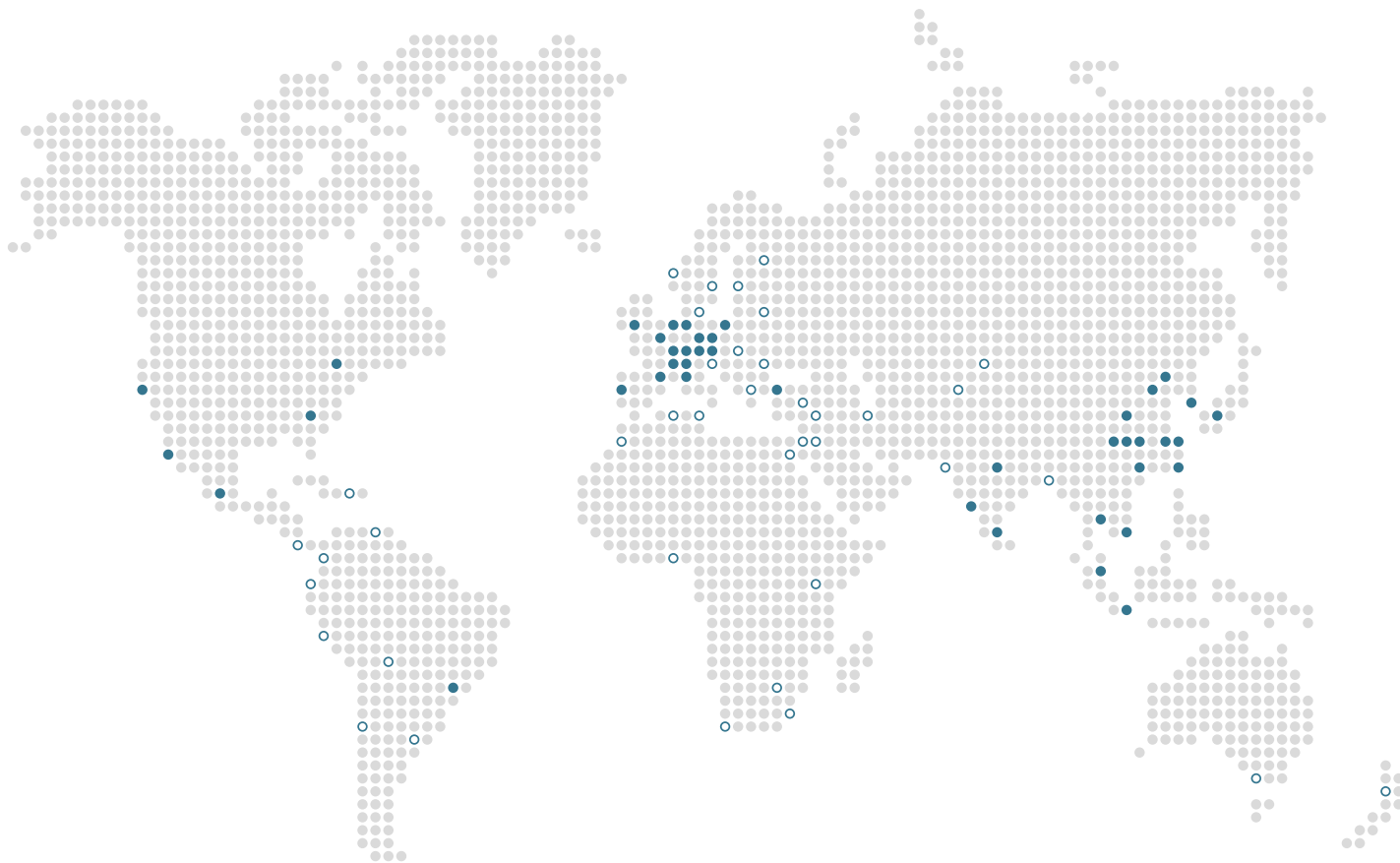
Displacement technology

A solution suitable for guiding systems with a maximum misalignment of 3 mm.



 Success story





● Stäubli Units ○ Representatives/Agents

Global presence of the Stäubli Group

www.staubli.com