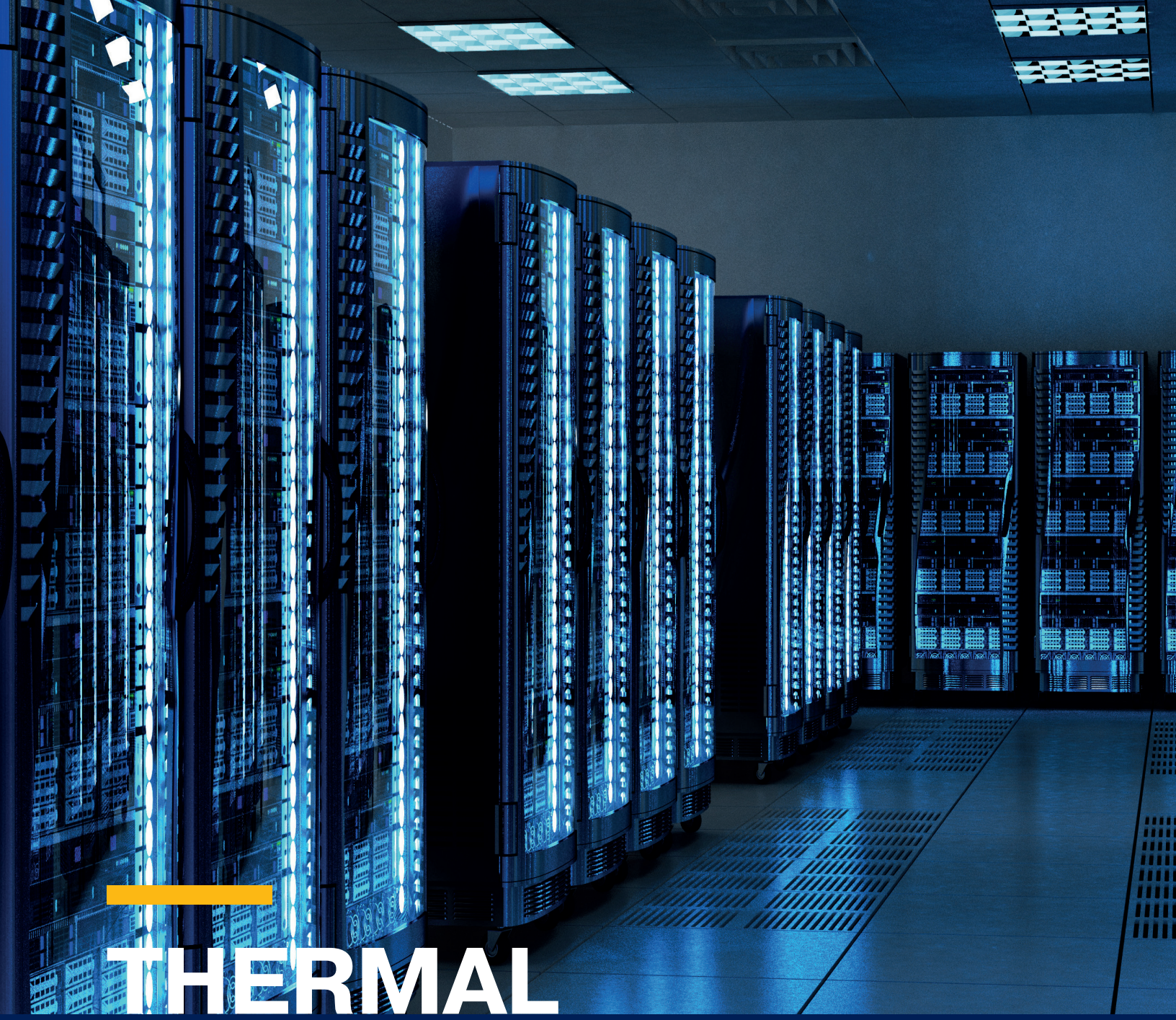


THERMAL MANAGEMENT

Quick couplings and manifolds assemblies for tempering and cooling

Parker

Let’s design the Future liquid Cooling together!

Quick connect coupling system – efficient components in the area of thermal management

The requirements for quick connect couplings for tempering and thermal management are extremely high. Whether for applications in the area of renewable energies, for computer cooling, in transport or for industrial applications the coupling systems from Parker offer optimally tailored solutions.

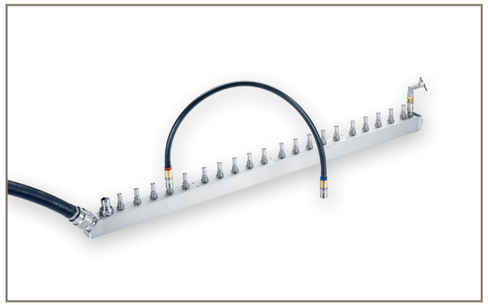
Our systems stand out for their high level of compatibility with the broadest range of liquids (for example water or heat exchange oils) and the application environment.

Likewise, their resistance to mechanical stresses is vital.

One of the most important requirements in the cooling of electronic systems is to prevent any fluid loss, as this is the only way to avoid major failure function of the installation.

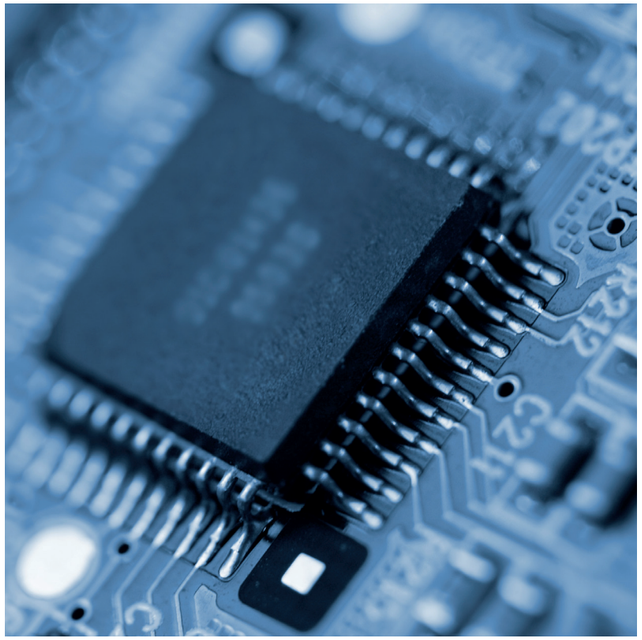
Our Value added:

- Wide experience on various thermal management applications
- A global presence
- Customer engineering intimacy
- In-house engineering and manufacturing



▲ Manifolds as a customized solution.

▲ Flat-sealing valve design prevents spillage.



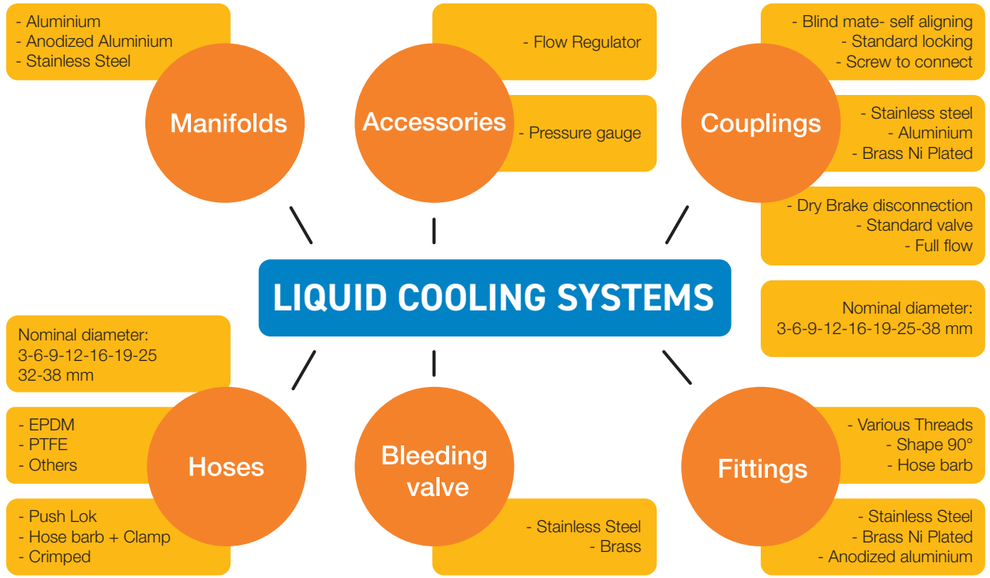
60 Years of Know-How

From standard product to customized solution – we meet your requirements

Energy efficiency and compact design play a major role in thermal management applications. As a result of the low pressure drop of our coupling systems, we take energy saving into account at the same time as optimal performance. Reducing the sizes of our couplings allows their use in the most confined spaces.

The flat-sealing valve design reliably prevents any fluid loss during the coupling and uncoupling process, thereby protecting the sensitive electronics and all electrical connections. For switchboards, we have developed a special coupling system (RNS series), which makes coupling and locking the cooling circuits on the racks considerably easier. Highly resistant materials and surface finishes equip our products for use under high mechanical loads.

Be ensure that the know-how we have acquired from over 60 years in the development and production of quick connect couplings guarantees a reliable and efficient solution for your requirement.



The right Solution for every Sector

Complex tasks demand suitable and efficient solutions – not least in the area of quick connect coupling systems

The topic of cooling is a critical factor in a lot of industries today. It is responsible for adequate temperatures in computers, in the electronic racks, on the tool or on the machine itself. All production and the product lifecycle of elements and machines are based on how effectively the cooling process is configured and ensures ideal operating temperatures.
In these cooling circuits, it comes down not least to the efficient performance of all components. Companies demand maximum reliability and maximum efficiency coupled with durability and compact design. At first glance, these are often contradictory objectives, which demand solutions including modern materials and innovative design.
Therefore we employ the knowledge we acquired in the area of thermal management during the last decades to meet our customers requirements..

Information Technologies

Processors (microprocessors) generate waste of heat when operating. This result in overheating of the unit, which can cause malfunction up to the point of destruction of components.

A cooling system is then mandatory to enhance a quick heat waste dissolution. Small dissipation areas and high temperatures demand optimized and highly efficient solutions.
As water is 30 times more efficient than air, we provide support to our customers to build complete systems for water cooling for high performance computers, data Centers, microelectronics and telecomunication applications.

Energy Management

Our knowledge in the use of quick connect couplings in the area of solar and wind energy allows the development of bespoke solutions anytime cooling circuits are needed/required. For example, intelligent solutions are vital because of the constantly improving performance of the new generation of energy production plants based on high-performance cooling circuits with liquid.

Here, our systems are optimally geared to the parameters of pressure, flow and temperature. As the systems are often used in salty sea air, corrosion-resistant materials are essential.

Mobile & Transportation

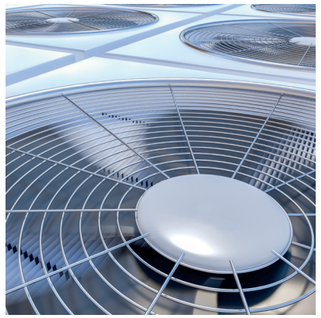
Rapidly increasing flows of goods and further increases in mobility demand extremely reliable and efficient vehicle concepts.

Here, the cooling of diesel-powered and electrically driven rail vehicles is highly important, and we provide light weight couplings and connection products adapted to this application. More recently the environmental care drives more and more to the usage of electrical vehicles and ships.
Our products are part of the systems built for the liquid cooling of the batteries.

Industrial Applications

From the individual machine to production lines and high-performance lasers, cooling is present in different industries.

Quick connect couplings are used in liquid cooling systems both for cooling tools in the production process and for the machine itself. Therefore, Parker provides solutions for liquid cooling and tempering for all types of industries, as semiconductors, laser projectors, plastic industry, electronics (inverters, converters), etc.



Others

Based on more than 60 years experience, our products are designed to operate for all kind of thermal management applications. We will be happy to support for the development of your system within any industry and design the future together.

Thermal Management Range at a Glance

Find the ideal product for your application

	NSI-Series	UQD-Series	NSE-Series	NSA-Series	Self Aligning - Blind mate couplings - NSIC/NSAC/NSEC/ UQDB	Screw to connect couplings NSSC-Series/ CDT-Series	60-Series	ORV-Series	Customized System Solutions - MND Series
Valves Dry Break	yes	yes	yes	yes	yes	yes	no	yes	possible
Working Pressure	20 bar	11 bar	15 bar	20 bar	20 bar	See p.30 for NSSC and p.32 for CDT	20 bar	3,4 bar	up to 15 bar
Nominal Diameter (mm)	3/6/9/12	3/6/9/12	16/19/25	6/8/10/12/19/25	3/6/9/25	6/25/32	6/9/12/19/25/32	5	
Technical Description	• Two-hand operation • Push to connect version available on request	• Fully interchangeable with other Intel-approved UQD suppliers	• Two-hand operation • Reduced dimensions compared to flow capacities	• Extreme lightweight (Aluminium)	• Blind connection • ± 1,5 mm misalignment allowed	• Two-hand operation • Screw to connect couplings with flat face valves.	• Two-hand operation	• Blind connection • ± 5 mm misalignment allowed • 2,7° angular misalignment allowed	Parker offers manifolds using RNS or cartridge couplings for blind mate connections
Material (Coupling Body)	Brass/Stainless Steel	Stainless Steel	Stainless Steel	Anodized Aluminium	Stainless steel /Aluminium /Brass nickel plated /Zinc Plated Steel	Stainless Steel/Steel Zinc plated	Stainless Steel/Brass	Stainless Steel/Zinc Plated Steel	on request
Seals (other seal variants on request)	FKM/EPDM	EPDM	FKM/EPDM	Fluorosilicone	FKM/EPDM	EPDM	NBR/EPDM	EPDM	on request
Working Temperature	-20°C up to +200°C (FKM)	0°C to 70°C	-20°C up to +200°C (FKM)	-50°C up to +175°C (Fluorosilicone)	-20°C up to +200°C (FKM)	See p.30 for NSSC and p.32 for CDT	-20°C up to +120°C	0°C up to +60°C	following seals material requested

Nominal Diameter

3/6/9/12

Parker Series

NSI

Technical Description
The NSI are dry-break couplings with flat face valves. The compact design makes them suitable for reduced spaces. Coupling system with two-hand operation, i.e. both hands are required when connecting/ disconnecting.

Push to connect version available on request: NSP series

Working Temperature
-20°C up to +200°C (FKM) depending on the medium. Other seals materials are available on request.

Advantages
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications
- Can be used either with water or heat transfer oils
- Excellent resistance to vibrations and mechanical stresses

Dry-Break

Max. Working Pressure*

20 bar
* maximum static working pressure with design factor 4 to 1.

Material

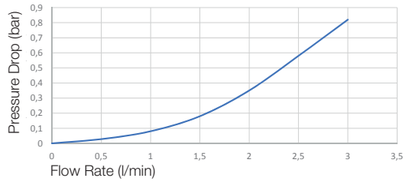
Coupling: Brass/Stainless Steel
Plug: Brass/Stainless Steel
Seals: FKM or EPDM
Other materials available on request.

Applications

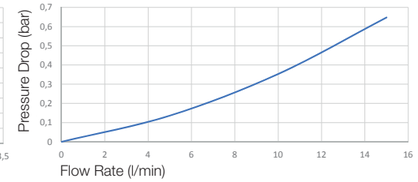
- Molding
- Electronic cabinets
- Laser
- Converters
- Radar, etc.
- Computers and telecommunications

Flow diagrams

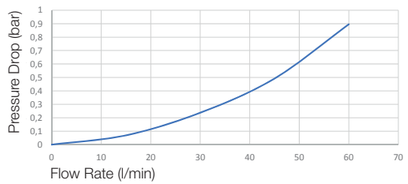
Water NSI Ø3



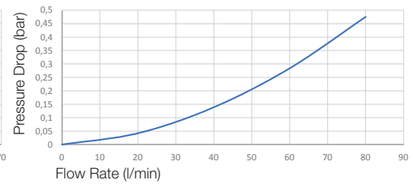
Water NSI Ø6



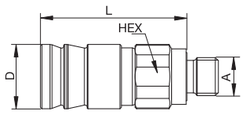
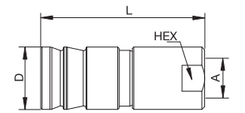
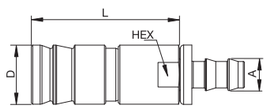
Water NSI Ø9



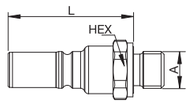
Water NSI Ø12



Couplings — Series NSI

	DN	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	3	G 1/8	14	38	17	NSI-121-2MBE[1]
	6	M 16 x 1,5	20	44,8	22	NSI-251-16MCL-2[2]
	9	G 3/8	27	63	30	NSI-371-6MBO
	12	G 1/2	35	90,4	42	NSI-501-8MBO
 Female Thread	6	G 1/4	20	57,9	22	NSI-251-4FB
	9	G 3/8	27	72	30	NSI-371-6FB
	12	G 1/2	35	99,4	42	NSI-501-8FB
 Parker Push-Lok	6	10 mm	20	55,2	22	NSI-251-6PL

Plugs — Series NSI

	DN	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	3	G 1/8	14	36,5		NSI-122-2MBE [1]
	6	G 1/4	19	44		NSI-252-4MBE-2
	9	G 3/8	24	60,2		NSI-372-6MBO
	12	G 1/2	32	79,1		NSI-502-8MBO

[1] End connection according to ISO1179-2 ED seal
[2] End connection according to DIN 2353 24°cone

⚠ Please consider our security advices in our main catalogues ⚠

Modules

02/04/06/08

Parker Series

UQD

Technical Description
Universal Quick Disconnect (UQD) based on an Intel inspired open specification. Developed in collaboration with Intel Corporation.

Working Temperature
0°C to 70°C (Extended temperature range is possible, contact factory for more information).

Advantages
- Fully interchangeable with other Intelapproved
- UQD suppliers
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications

Dry-Break

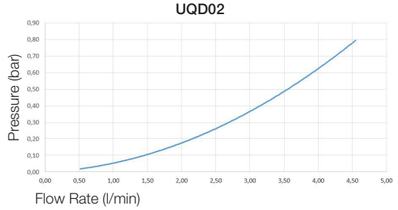
Max. Working Pressure	Material
150psi / 10.3 bar	**Coupling:** Stainless Steel **Plug:** Stainless Steel **Seals:** EPDM

Applications
- Computers and telecommunications
- Electronic Cabinets

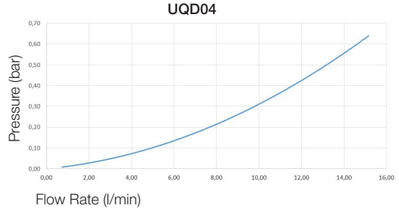
Flow diagrams

Water

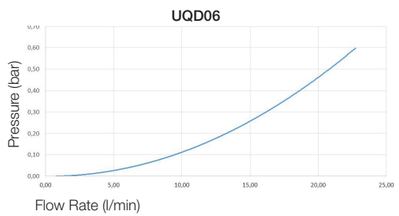
UQD02



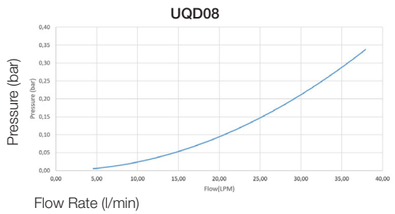
UQD04



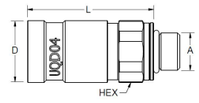
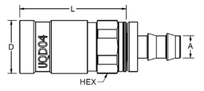
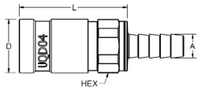
UQD06



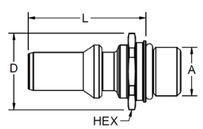
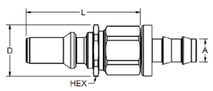
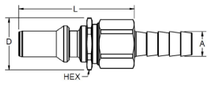
UQD08



Couplgs — Series UQD

	Module	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	02	7/16-20 UNF-2A	15.9	36.2	18.5	UQD-121-4MO
	04	9/16-18 UNF-2A	22.2	48	23.4	UQD-251-6MO
	04	G 3/8-19-A BSPP	22.2	49.9	23.4	UQD-251-6MB
	06	G 3/8-19-A BSPP	25.4	53.9	27.4	UQD-371-6MB
	06	3/4-16 UNF-2A	25.4	52	27.4	UQD-371-8MO
	08	7/8-14 UNF-2A	28.6	62.5	32.6	UQD-501-10MO
 Parker Push-Lok	02	1/4"	14.3	35.6	18.5	UQD-121-4PL
	04	1/4"	22.2	47.7	23.4	UQD-251-4PL
	04	3/8"	22.2	47.7	23.4	UQD-251-6PL
	06	1/2"	25.4	52	27.4	UQD-371-8PL
	06	1/2"	28.6	62.5	32.6	UQD-501-8PL
	08	5/8"	28.6	62.5	32.6	UQD-501-10PL
 Hosebarb	04	3/8"	22.2	47.8	23.4	UQD-251-6HB

Plugs — Series UQD

	Module	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	02	G 1/8-28-A BSPP	12.7	28.5	14.3	UQD-122-2MB
	02	G 1/4-19-A BSPP	14.3	29.0	18.5	UQD-122-4MB
	02	7/16-20-20 UNF-2A	14.3	26.7	15.5	UQD-122-4MO
	04	G 3/8-19-A BSPP	25.4	35.0	28.6	UQD-252-6MB
	04	9/16-18 UNF-2A	20.6	34.3	22.2	UQD-252-6MO
	06	G 3/8-19-A BSPP	25.4	65.0	29.3	UQD-372-6MB
	06	3/4-16 UNF-2A	23.8	40.4	26.7	UQD-372-8MO
	08	7/8-14 UNF-2A	28.6	43.4	31.4	UQD-502-10MO
 Parker Push-Lok	02	1/4"	15.9	39.3	17.5	UQD-122-4PL
	04	1/4"	20.6	49.4	22.2	UQD-252-4PL
	04	3/8"	20.6	49.4	22.2	UQD-252-6PL
 Hosebarb	02	1/4"	15.9	40.6	17.3	UQD-122-4HB
	04	3/8"	20.6	49.4	22.2	UQD-252-6HB

⚠ Please consider our security advices in our main catalogues ⚠

Nominal Diameter

16/19/25

Parker Series

NSE

Technical Description
The NSE are dry-break couplings with flat face valves. The compact design makes them suitable for reduced spaces when high flow is needed. Coupling system with two-hand operation, i.e. both hands are required when connecting/disconnecting.

Working Temperature
-20°C up to +200°C (FKM)

Other seals materials are available on request.

Advantages
- High flow with low pressure drop
- No spillage during connection/disconnection
- Specific design for cooling applications
- Reduced dimensions compared to flow capacities

Dry-Break

Max. Working Pressure*

15 bar
* maximum static working pressure with safety factor 4 to 1.

Material

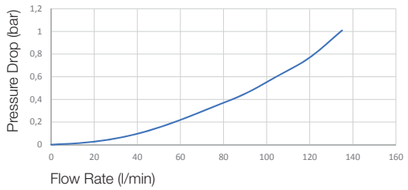
Coupling: Stainless Steel
Plug: Stainless Steel
Seals: FKM

Applications

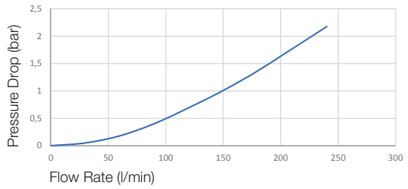
- Molding
- Electronic cabinets
- Laser
- Converters
- Radar, etc.

Flow diagrams

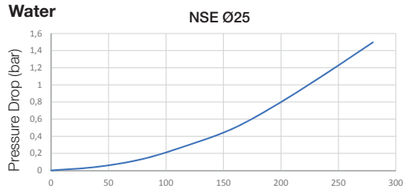
Water NSE Ø16



Water NSE Ø19

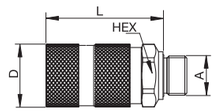
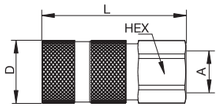
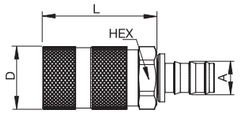


Water NSE Ø25

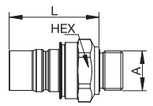
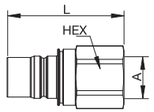
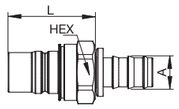


Thermal Management

Couplings — Series NSE

	DN	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	16	G 3/4	34	68,8	37	NSE-621-12MBO
	19	G 3/4	38	78,5	42	NSE-751-12MBO
 Female Thread	19	G 1	38	96,6	42	NSE-751-16FB
	25	G 1 1/4	50	120,5	53	NSE-1001-20FB
 Parker Push-Lok	19	12,5 mm	38	76,4	42	NSE-751-8PL
	19	19 mm	38	76,4	42	NSE-751-12PL

Plugs — Series NSE

	DN	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	16	G 3/4	34	56,5		NSE-622-12MBO
	19	G 3/4	38	60,3		NSE-752-12MBO
 Female Thread	19	G 1	38	78,4		NSE-752-16FB
	25	G 1 1/4	50	96,8		NSE-1002-20FB
 Parker Push-Lok	19	12 mm	38	58,2		NSE-752-8PL
	19	19 mm	38	58,2		NSE-752-12PL

⚠ Please consider our security advices in our main catalogues ⚠

Nominal Diameter

6/8/10/12/19/25

Parker Series

NSA

Technical Description
Minimal fluid loss during disconnection. NSA couplings have minimal pressure drop and no inclusion of air or dust during connection.

Working Temperature
-50°C up to +175°C (Fluorosilicone)
depending on the medium.

Other seals materials are available on request.

Advantages
- No spillage during connection/disconnection
- Light weight due to aluminium construction
- Push-Lok connection for fast assembly

Dry-Break

Max. Working Pressure

20 bar

Material

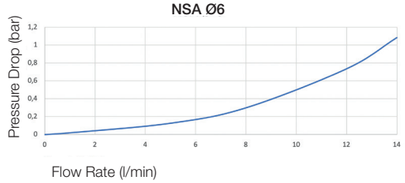
Coupling: Anodized Aluminium
Plug: Anodized Aluminium
Seals: Fluorosilicone

Applications

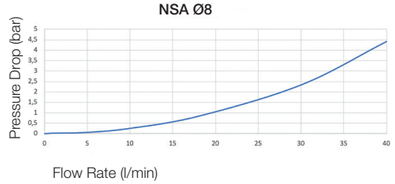
- Cooling of onboard electronic equipment, engines and batteries
- Cooling of converters, data centers, military equipment and medical imaging equipment

Flow diagrams

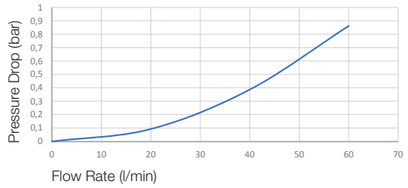
Water NSA Ø6



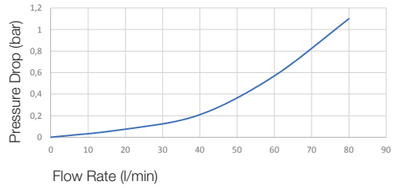
Water NSA Ø8



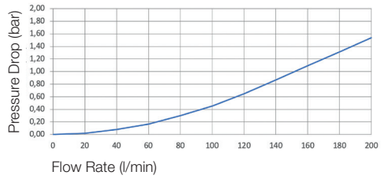
Water NSA Ø10



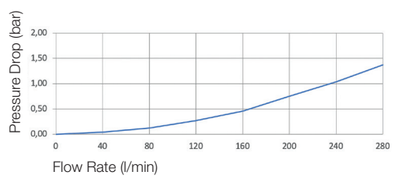
Water NSA Ø12



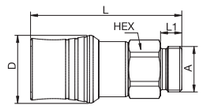
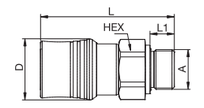
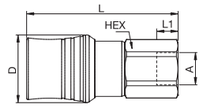
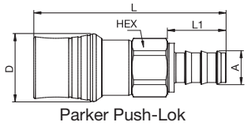
Water NSA Ø19



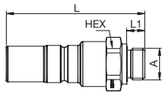
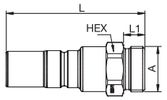
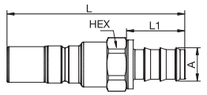
Water NSA Ø25



Couplings — Series NSA

	DN	Connection A	HEX mm	L mm	L1 mm	D mm	Weight gr.	Part Number
 Male Thread metric DIN 2353	12	M 30 x 1,5	35	99,4	14	44,5	231	NSA-501-30MCL
 Male Thread BSPP	6	G 1/2	27	55,5	14	25	48	NSA-251-8MBO
	8	G 3/4	32	62,5	16	31	77	NSA-331-6MBO
	10	G 1/2	35	91,6	14	40	157	NSA-391-8MBO
	19	G 3/4	38	87,5	16	48	182	NSA-751-12MBO
	25	G 1	47	99,6	18	58	300	NSA-1001-16MBE
 Female Thread BSPP	12	G 1/2	35	99,4	14	44,5	249	NSA-501-8FB
 Parker Push-Lok	12	19 mm	35	126,40	38,30	44,5	239	NSA-501-12PL
	19	19 mm	38	96,4	27	48	179	NSA-751-19HB
	25	32 mm	47	123,5	38	58	302	NSA-1001-32HB

Plugs — Series NSA

	DN	Connection A	HEX mm	L mm	L1 mm	D mm	Weight gr.	Part Number
 Male Thread BSPP with O-ring Seal	6	G 1/4	20	45,5	12		16	NSA-252-4MBO
	8	G 3/8	24	54,3	12		33	NSA-332-6MBO
	10	G 1/2	27	81	12		67	NSA-392-8MBO
	12	G 1/2	32	91,1	12		88	NSA-502-8MBO
	19	G 3/4	38	76,3	16		96	NSA-752-12MBO
	25	G 1	47	85,5	18		155	NSA-1002-16MBE
 Male Thread Metric	12	M 30 x 2	32	91,1	14		93	NSA-502-30MCL
 Parker Push-Lok	12	19 mm	32	117,1	38,3		97	NSA-502-12PL

⚠ Please consider our security advices in our main catalogues ⚠

Body Size

1/8 up to 1 1/2“

Parker Series

60-Series

Technical Description
The 60 series are robust construction couplings with standard valves, destinated to various applications.

Working Temperature
-40°C up to +110°C (NBR)
depending on the medium.

Special seals are available on request.

Advantages
A poppet with crimped seal assures a maximum sealing at low flow rates and prevents seal washout at high flow rates. A large number of locking balls distribute the work load evenly while providing alignment for the two parts of the coupling.

Sleeve-Lock:
60 series couplers are available with safety locking sleeves. Please add the suffix **SL** to the part number, e.g. **H3-62-SL**.

Max. Working Pressure

20 bar

Material

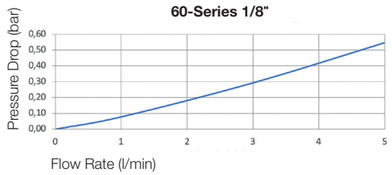
Coupling Body:	AISI 303	**Material Plug:**	AISI 303
Sleeve:	AISI 303	**Plug Body:**	AISI 303
Back-up Ring:	Stainless Steel	**Valve:**	AISI 303
Valve:	AISI 303	**Springs:**	Stainless Steel
Springs:	Stainless Steel	**Seals:**	NBR
Locking Balls:	Stainless Steel	**Valve Holder:**	Stainless Steel
Seals:	NBR	**Thread Body:**	AISI 303
Valve Holder:	Stainless Steel		
Thread Body:	AISI 303		

Applications

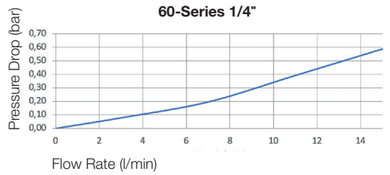
- Cooling of onboard electronic equipment, engines and batteries
- Cooling of converters, data centers, military equipment and medical imaging equipment
- Semiconductor industry
- Food and bottling industry
- Transport
- Power generation plants, hydroelectric power stations

Flow diagrams

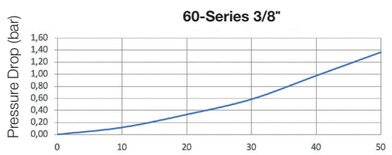
Water



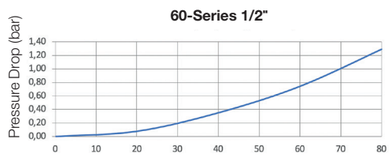
Water



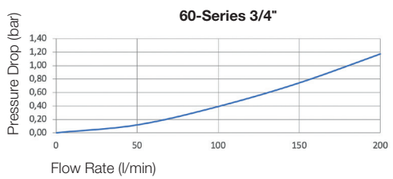
Water



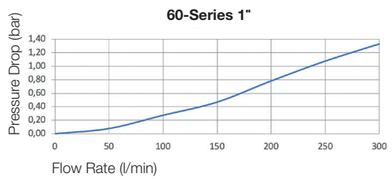
Water



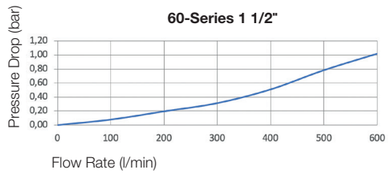
Water



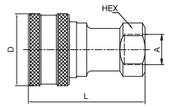
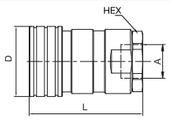
Water



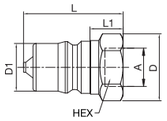
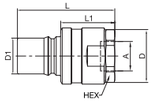
Water



Couplings — 60-Series Stainless Steel

	Body Size	Connection A	Thread	Hex	L mm	L1 mm	D mm	D1 mm	Version	Weight gr.	Part Number
 Female Thread	1/8"	1/8"	BSPP	11/16"	48,3		24,4		AISI 303	81	SH1-62-BSPP
	1/4"	1/4"	BSPP	19 mm	61,2		29,0		AISI 303	129	SH2-62-BSPP
	3/8"	3/8"	BSPP	1"	69,9		35,6		AISI 303	245	SH3-62-BSPP
	1/2"	1/2"	BSPP	1 1/8"	77,5		45,0		AISI 303	360	SH4-62-BSPP
	3/4"	3/4"	BSPP	1 5/16"	93,2		54,4		AISI 303	603	SH6-62-BSPP
	1"	1"	BSPP	1 5/8"	106,2		64,0		AISI 303	908	SH8-62-BSPP
 Female Thread	1 1/2"	1 1/2“	BSPP	2 1/2“	127,3		76,2		AISI 303	2090	SH12-62N-BSPP

Plugs — 60-Series Stainless Steel

	Body Size	Connection A	Thread	Hex	L mm	L1 mm	D mm	D1 mm	Version	Weight gr.	Part Number
 Female Thread	1/8"	1/8"	BSPP	9/16"	32,0	10,5	16,4	10,8	AISI 303	18	SH1-63-BSPP
	1/4"	1/4"	BSPP	19 mm	39,1	16,6	21,9	14,2	AISI 303	36	SH2-63-BSPP
	3/8"	3/8"	BSPP	7/8"	49,3	19,7	25,7	19,1	AISI 303	69	SH3-63-BSPP
	1/2"	1/2"	BSPP	1 1/8"	54,1	21,1	32,9	23,5	AISI 303	122	SH4-63-BSPP
	3/4"	3/4"	BSPP	1 3/8"	64,5	21,9	40,3	31,4	AISI 303	217	SH6-63-BSPP
	1"	1"	BSPP	1 5/8"	73,8	25,2	47,2	37,7	AISI 303	345	SH8-63-BSPP
 Female Thread	1 1/2"	1 1/2“	BSPP	2 1/2“	124,7	67,5	69,9	44,5	AISI 303	1315	SH12-63N-BSPP

⚠ Please consider our security advices in our main catalogues ⚠

Body Size

3 up to 9

Parker Series

NSIC-Series

Technical Description
NSIC cartridges are the right solution for blind mate connections. They allow a misalignement at connection between the nipple and coupler half and they are dripless.

Working Temperature
-20°C up to +200°C (FKM).
Other seals materials are available on request.

Advantages
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications
- Can be used either with water or heat transfer oils
- Excellent resistance to vibrations and mechanical stresses.
- Easy connection under pressure.
- Suitable for main inlet/outlet connections for the cooling circuits.
- Allow ± 1mm misalignment at connection

Dry-Break

Max. Working Pressure

20 bar* maximum static working pressure with design factor 4 to 1.

Material

Coupling: Brass Ni plated or Stainless Steel
Plug: Brass Ni plated or Stainless Steel
Seals: FKM
Other materials available on request.

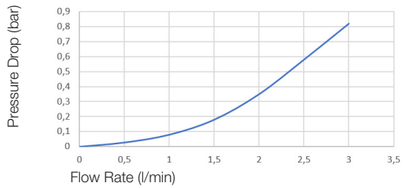
Applications

- Electronic cabinets
- Converters
- Radar
- Computer and telecommunications

Flow diagrams

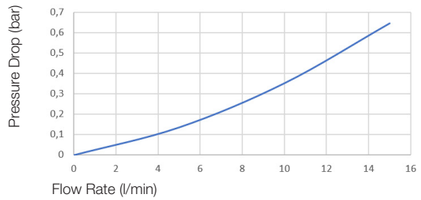
Water

NSIC Ø3



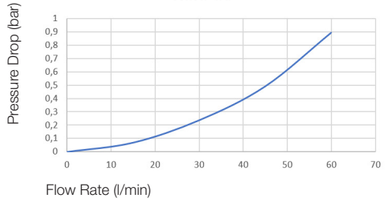
Water

NSIC Ø6



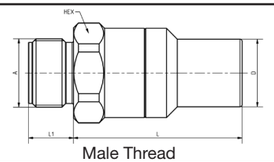
Water

NSIC Ø9



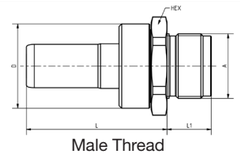
Thermal Management

Couplings — NSIC-Series

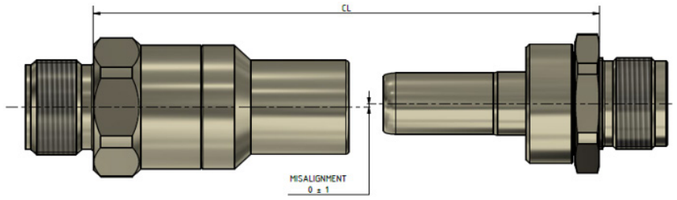
	Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
	3	M11x1	16	22.6	12	13	31.9	On request	NSIC-121-11MM-E
	3	7/12-20 UNF	14	20.9	11.6	15.5	25.7	On request	NSIC-121-4MO-ES3
	6	G 3/8	24	47.5	12	20	116	On request	NSIC-251-6MBO-E
	9	1-20 UNEF - 2A (A LOK)	35	65.9	37.3	26	371	On request	NSIC-371-12HCA-S3

Male Thread

Plugs — NSIC-Series

	Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
	3	M11x1	18	32.7	12	16.8	31.2	On request	NSIC-122-11MM-E
	3	7/12-20 UNF	17	33.3	9.1	18	15.3	On request	NSIC-122-4MO-ES3
	6	G 3/8	24	42.3	12	23.50	75	On request	NSIC-252-6MBO-E
	9	1-20 UNEF - 2A (A LOK)	35	55	37.3	33	271.8	On request	NSIC-372-12HCA-S3

Male Thread



Technical Description
The RNS are rigid couplings with flat face valves. They can be mounted on rigid manifolds or tubing and assure connection/disconnection without spillage. Base material is brass and stainless steel.

Advantages
- Push-Pull connection/disconnection, break-away function.
- Dry-break connection/disconnection.
- Connection guiding system and compensation of misalignment during connection on rack systems (when both are mounted on rigid devices).
- Specific design for cooling applications.

⚠ Please consider our security advices in our main catalogues ⚠

Body Size

3 up to 6

Parker Series

NSAC-Series

Technical Description
NSAC cartridges are the right solution for blind mate connections. They allow a misalignement at connection between the nipple and coupler half and they are dripless.

Working Temperature
-55°C up to +120°C (EPDM)
Other seals materials are available on request.

Advantages
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications
- Can be used either with water or heat transfer oils
- Excellent resistance to vibrations and mechanical stresses.
- Easy connection under pressure.
- Suitable for main inlet/outlet connections for the cooling circuits.
- Allow ± 1mm misalignment at connection

Dry-Break

Max. Working Pressure*

20 bar *maximum static working pressure with design factor 4 to 1.

Material

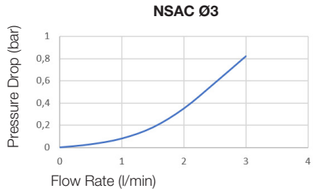
Coupling: Anodized Aluminium
Plug: Anodized Aluminium
Seals: EPDM

Applications

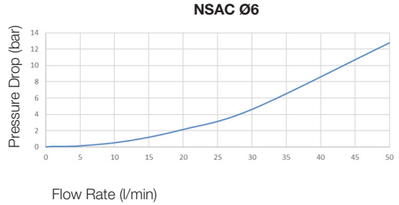
- Electronic cabinets
- Converters
- Radar
- Computer and telecommunications

Flow diagrams

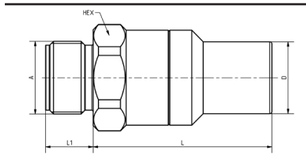
Water



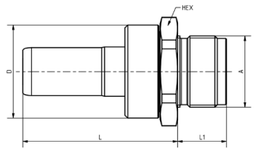
Water

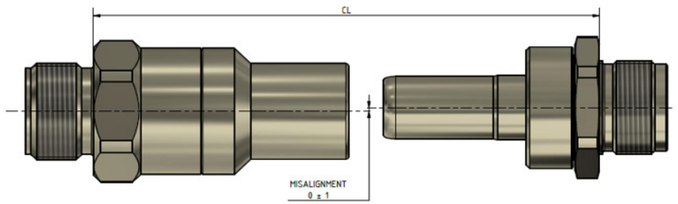


Couplings NSAC-Series

	Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
	3	M11x1	14	22	12,5	13	11	On request	NSAC-121-11MM-E
	6	M18x1,5	24	27	15	20	28	On request	NSAC-251-18MM-E
Male Thread									

Plugs NSAC-Series

	Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
	3	M11x1	17	33	11,5	17	11	On request	NSAC-122-11MM-E
	6	M18x1,5	24	42	15	23,5	31	On request	NSAC-252-18MM-E
Male Thread									



⚠ Please consider our security advices in our main catalogues ⚠

Thermal Management

Modules

02/04/06/08

Parker Series

UQDB

Technical Description
Universal Quick Disconnect Blind Mate (UQDB) based on an Intel inspired open specification. Developed in collaboration with Intel Corporation.

Working Temperature
0°C to 70°C (extended temperature range is possible, contact Parker for more information).

Dry-Break

Advantages
- Fully interchangeable with other Intel-approved UQDB suppliers
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications
- Excellent resistance to vibrations and mechanical stresses
- Allow ± 1mm misalignment at connection

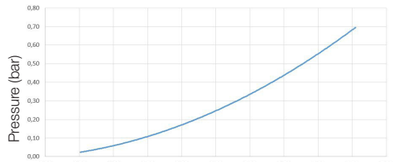
Max. Working Pressure
150psi / 10.3 bar

Material
Coupling: Stainless Steel
Plug: Stainless Steel and Zinc Plated Steel
Seals: EPDM

Applications
- Computers and telecommunications
- Electronic Cabinets

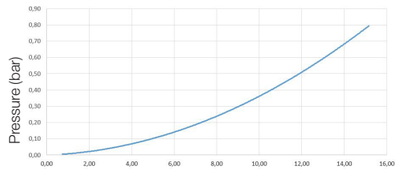
Flow diagrams

Water **UQDB Ø2**



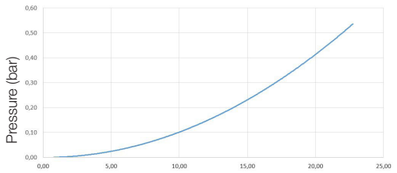
Flow Rate (l/min)

UQDB Ø4



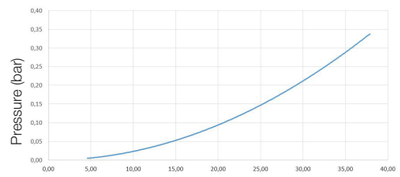
Flow Rate (l/min)

Water **UQDB Ø6**



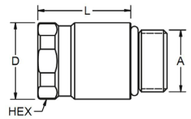
Flow Rate (l/min)

UQDB Ø8



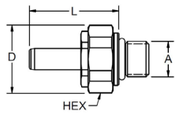
Flow Rate (l/min)

Couplings — Series UQDB



Module	Connection A	HEX mm	L mm	D mm	Part Number
02	9/16-18 UNF-2A	17	23.6	18	UQDB-121-6MO
04	3/4-16 UNF-2A	23.8	28.5	24.7	UQDB-251-8MO
06	7/8-14 UNF-2A	27	31.8	28.3	UQDB-371-10MO
08	1 1/16-12 UN-2A	28	35.5	31.2	UQDB-501-12MO

Plugs — Series UQDB



Module	Connection A	HEX mm	L mm	D mm	Part Number
02	7/16-20 UNF-2A	20	27	21.2	UQDB-122-4MO
04	9/16-18 UNF-2A	24	35.4	25.3	UQDB-252-6MO
06	3/4-16 UNF-2A	27	38.9	28.3	UQDB-372-8MO
08	7/8-14 UNF-2A	28	42.9	31.2	UQDB-502-10MO

Thermal Management

Body Size

5

Parker Series

ORV

Technical Description
ORV Series is based on OCP inspired 0Rv3 BMQC open specihcation.

Working Temperature
0°C to 60°C (extended temperature range is possible, contact Parker for more information).

Advantages
- High flow with low pressure drop
- No spillage during connection/disconnection
- Self-centering plug to ensure repeatable connection sequences
- Allow +/- 5 mm misalignment and 2,7° angular misalignment at connection

Dry-Break

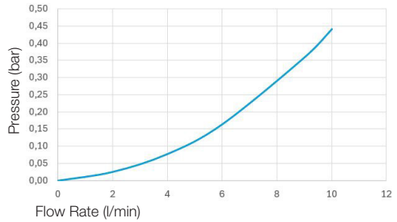
Max. Working Pressure
50 psi / 3.4 bar

Material
Coupling: Stainless Steel
Plug: Stainless Steel and Zinc Plated Steel
Seals: EPDM

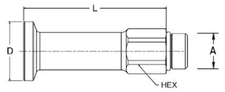
Applications
- Computers and telecommunications

Flow diagrams

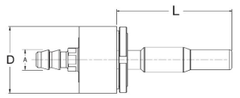
PG25@40°C **ORV Ø5**



Couplings Series-ORV

	Size	Connection A	HEX mm	L mm	D mm	Part Number
	5	3/4-16 UNF-2A	22	75	31.5	ORV-251-BMO

Plugs Series-ORV

	Size	Connection A	HEX mm	L mm	D mm	Part Number
	5	-6 Tube barb		67.7	40	ORV-252-6TB

⚠ Please consider our security advices in our main catalogues ⚠

Body Size
25

Parker Series
NSEC-Series

Technical Description
NSEC cartridges are the right solution for blind mate connections. They allow a misalignement at connection between the nipple and coupler half and they are dripless.

Working Temperature
-55°C up to +120°C (EPDM) depending on the medium.
Other seals materials are available on request.

Advantages
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications
- Can be used either with water or heat transfer oils
- Excellent resistance to vibrations and mechanical stresses.
- Easy connection under pressure.
- Suitable for main inlet/outlet connections for the cooling circuits.
- Allow +/- 1.5 mm misalignment at connection

Dry-Break

Max. Working Pressure*

15 bar *maximum static working pressure with design factor 4 to 1.

Material

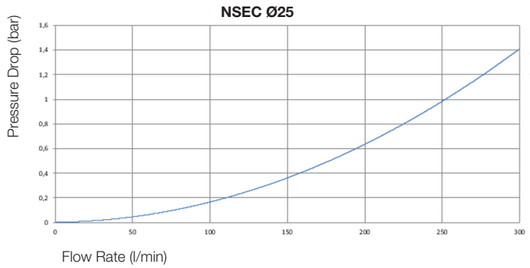
Coupling: Stainless Steel
Plug: Stainless Steel
Seals: EPDM

Applications

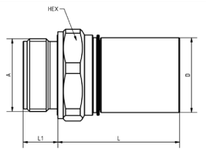
- Electronic cabinets
- Converters
- Radar
- Computer and telecommunications

Flow diagrams

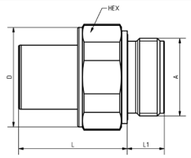
Water

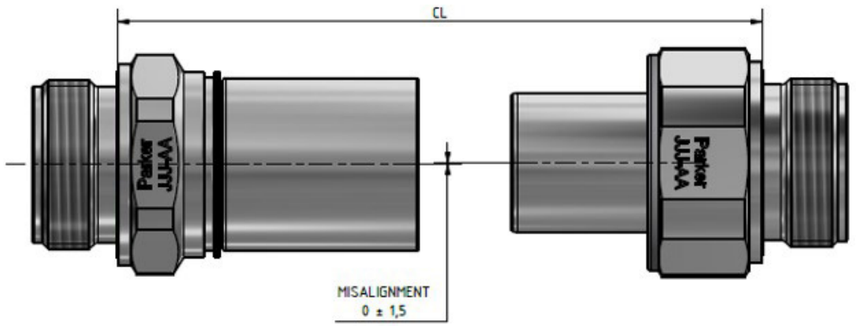


Couplings NSEC-Series

	Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
 Male Thread	25	G 1 1/4	50	70	20	42,9	540	On request	NSEC-1001-20MBE-E

Plugs NSEC-Series

	Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
 Male Thread	25	G 1 1/4	54	58,4	20	53,5	470	On request	NSEC-1002-20MBE-E



⚠ Please consider our security advices in our main catalogues ⚠

Body Size
25

Parker Series
NSEC2-Series

Technical Description
NSEC2 cartridges are the right solution for blind mate connections. They allow a misalignement at connection between the nipple and coupler half and they are dripless.

Working Temperature
-55°C up to +120°C (EPDM) depending on the medium.
Other seals materials are available on request.

Advantages
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications
- Can be used either with water or heat transfer oils
- Excellent resistance to vibrations and mechanical stresses.
- Easy connection under pressure.
- Suitable for main inlet/outlet connections for the cooling circuits.
- Allow +/- 1.5 mm misalignment at connection

Dry-Break

Max. Working Pressure*

15 bar *maximum static working pressure with design factor 4 to 1.

Material

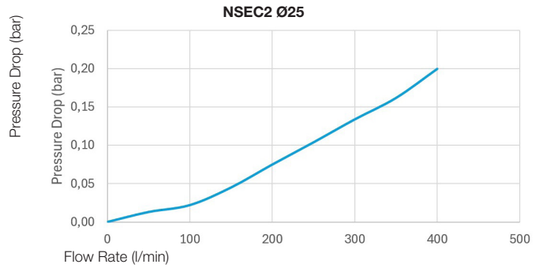
Coupling: Stainless Steel
Plug: Stainless Steel
Seals: EPDM

Applications

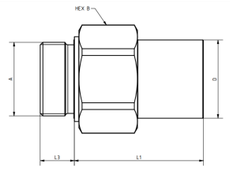
- Electronic cabinets
- Converters
- Radar
- Computer and telecommunications

Flow diagrams

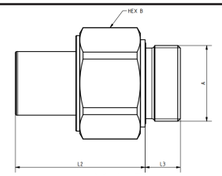
Water

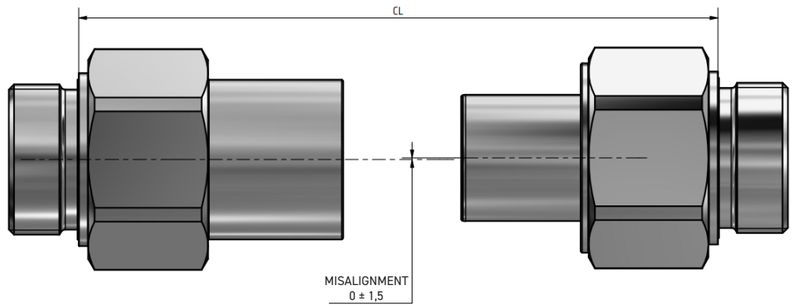


Couplings NSEC2-Series

	Body Size	Connection A	Hex	L1 mm	L3 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
 Male Thread	25	G 1 -1/2-11	63	83,6	22,1	51,6	540	127	NSEC-1021-24MBE-E

Plugs NSEC2-Series

	Body Size	Connection A	Hex	L2 mm	L3 mm	Weight gr.	CL mm (Connected length)	Part Number
 Male Thread	25	G 1 -1/2-11	54	81,2	22,1	470	127	NSEC-1022-24MBE-E



⚠ Please consider our security advices in our main catalogues ⚠

Body Size

6 up to 32

Parker Series

NSSC-Series

Technical Description
NSSC couplings are the right solution for connection under pressure. The NSSC couplings are a screw to connect dry-break couplings with flat face valves.

Working Temperature
-55°C up to +120°C (EPDM) depending on the medium.
Other seals materials are available on request.

Advantages
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications
- Can be used either with water or heat transfer oils
- Excellent resistance to vibrations and mechanical stresses.
- Easy connection under pressure.
- Suitable for main inlet/outlet connections for the cooling circuits.

Dry-Break

Max. Working Pressure*

10 bar *maximum static working pressure with design factor 4 to 1.

Material

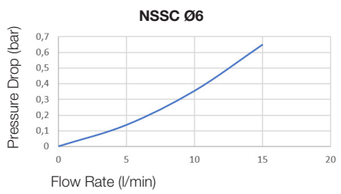
Coupling: Stainless Steel/Steel Zinc plated
Plug: Stainless Steel
Seals: FKM or EPDM
Other materials available on request.

Applications

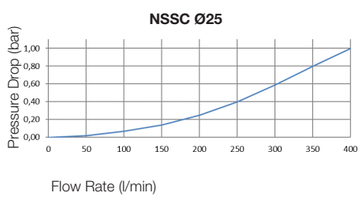
- Molding
- Electronic cabinets
- Laser
- Converters
- Radar
- Datacenters/Servers
- High Performance Computers

Flow diagrams

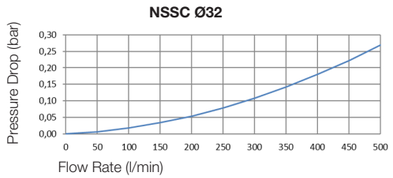
Water



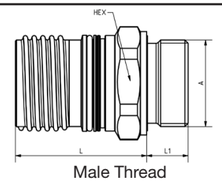
Water



Water



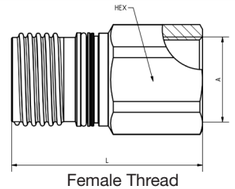
Couplings — NSSC-Series



Male Thread

Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	Part Number
6	G 1/4	24	50	11	24,5	76	NSSC-251-4MBE
25	G 1 1/4	50	93	20	56	600	NSSC-1001-20MBE

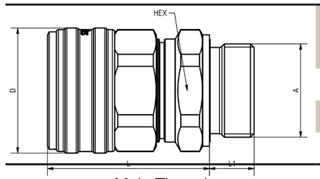
Couplings — NSSC-Series



Female Thread

Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	Part Number
32	G 1 1/4	50	102	N/A	N/A	1120	NSSC-1251-20FB

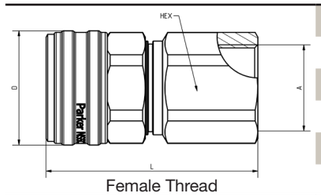
Plugs — NSSC-Series



Male Thread

Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	Part Number
6	G 1/4	21	53,5	11	N/A	80	NSSC-252-4MBE
25	G 1 1/4	50	83	20	N/A	520	NSSC-1002-20MBE

Plugs — NSSC-Series



Female Thread

Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	Part Number
32	G 1 1/4	50	122	N/A	74	1320	NSSC-1252-20FB

⚠ Please consider our security advices in our main catalogues ⚠

Nominal Diameter

25

Parker Series

CDT-Series

Technical Description
The CDT series are dry-break, thread-to-connect quick disconnects for inlets and manifolds in liquid cooling systems. The threaded connection provides a mechanical advantage ofr safety connecting and disconnecting. They are OCP inspired and validated

Working Temperature
-10°C up to +70°C

Advantages
- High flow with pressure drop
- No spillage during connection/disconnection
- Threaded connection and disconnection
- Each part includes a red and blue band for color coding

Dry-Break

Max. Working Pressure*

3.4 bar / 50 psi
12 bar / 175 psi
*maximum static working pressure with design factor 4 to 1.

Material

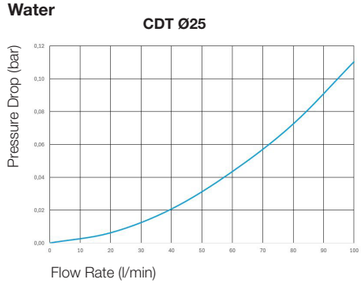
Coupling: Stainless Steel
Plug: Stainless Steel/Zinc Plated Steel
Seals: EPDM

Applications

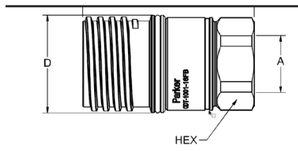
- Electronic cabinets
- Laser
- Converters
- Radar
- Datacenters/Servers
- High Performance Computers

Flow diagrams

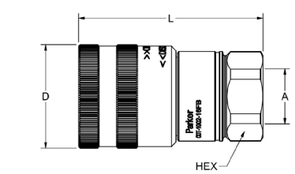
Water



Couplings CDT-Series

	Body Size	Connection A	Hex	L mm	D mm	Weight gr.	Part Number
	25	G1-11-A BSPP	46	92.7	52.2	??	CDT-1001-16FB

Plug CDT-Series

	Body Size	Connection A	Hex	L mm	D mm	Weight gr.	Part Number
	25	G1-11-A BSPP	16	102.8	57.7	??	CDT-1002-16FB

⚠ Please consider our security advices in our main catalogues ⚠

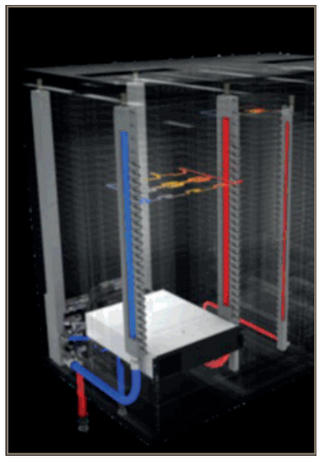
“Plug & Play” - Customized Systems

We offer engineering support to our customers for the co-development of the complete cooling installation. A special care is accorded to the pressure drop for energy saving and to assure the optimal temperature management.

We propose a complete 100% tested solution integrating our products, between the chiller to the component to be cooled.

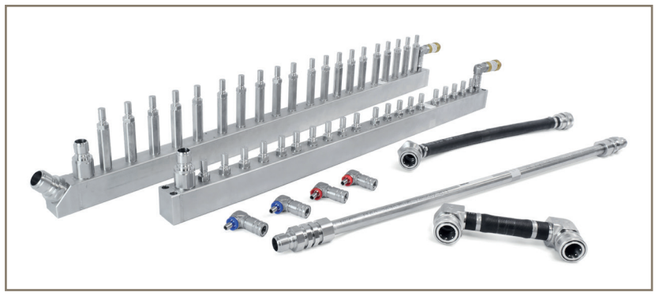
Our solutions include:

- **Manifolds** – several materials available
- **Couplings or cartridges** – from 3mm ID to 32 mm ID available in different materials and seals
- **Hose assemblies** – including Push-lok (hose barb) end connections for an optimal number of components
- **Bleeding valves, flow regulators, etc.**
- **Pressure and flow sensors**
- **Others...**



Our support:

- **Co-design of your cooling system**
- **Mechanical, thermal & flow simulation**
- **Building sample & prototype**
- **Laboratory validation**
- **Tightness test 100% serial parts**
- **Packaging optimization**

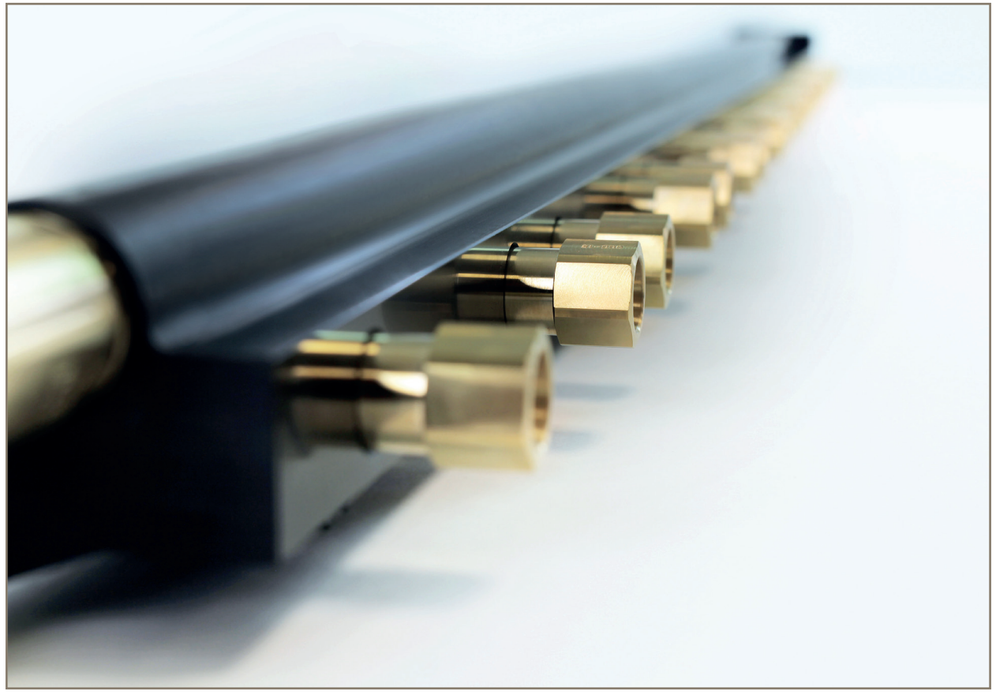


Shape your Future Cooling System together...

For more information about the characteristics or feasibility please contact us.

- **Liana Jaskot** – ljaskot@parker.com
- **Torsten Boehme** – torsten.boehme@parker.com

Optimize your profitability and commit to a sustainable future. By choosing Parker, you benefit from enhanced performance of your equipment, extended reliability of your investments, and an active contribution to environmental protection.



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Catalogue BUL/3800-1/UK June 2026