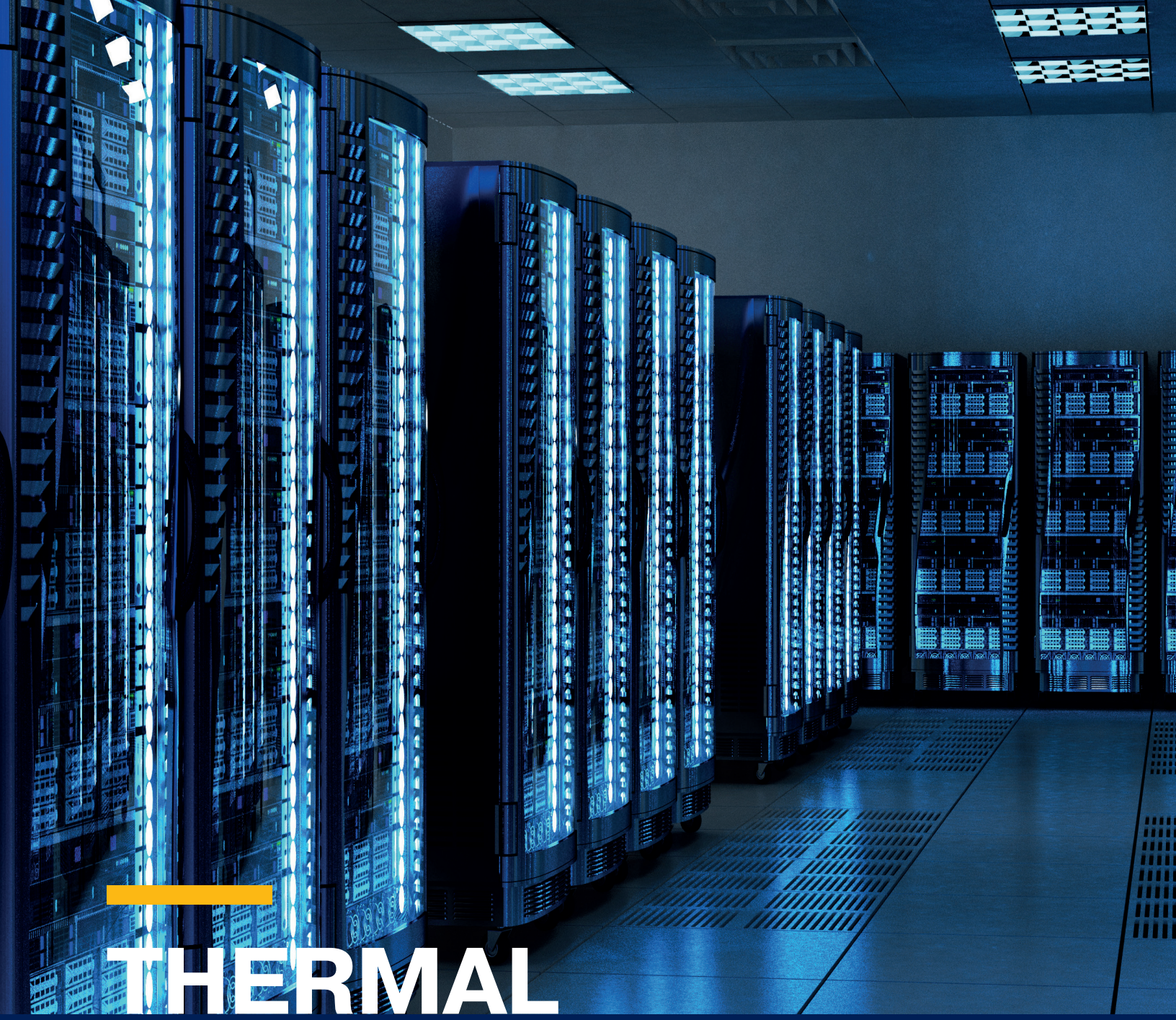


THERMAL MANAGEMENT

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

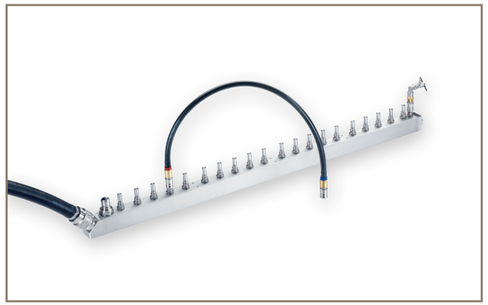
The requirements for quick connect couplings for tempering and thermal management are extremely high. Whether for applications in the area of renewable energies, for computer cooling, in transport or for industrial applications the coupling systems from Parker offer optimally tailored solutions.

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.

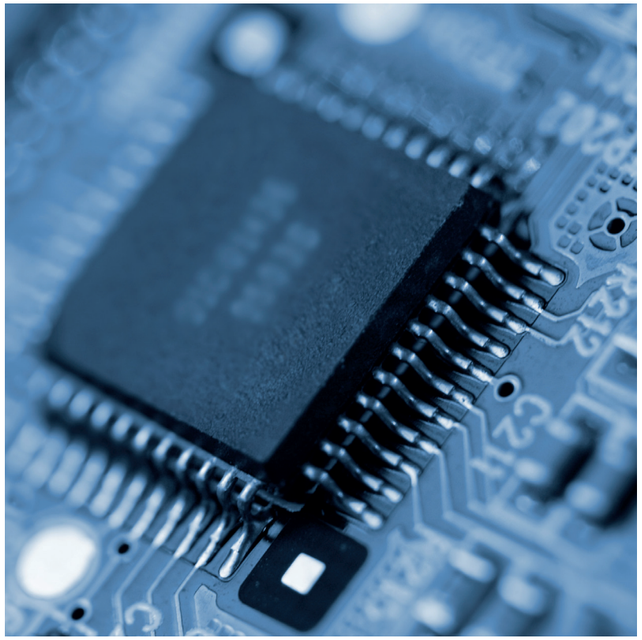
Our Value added:

- 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.



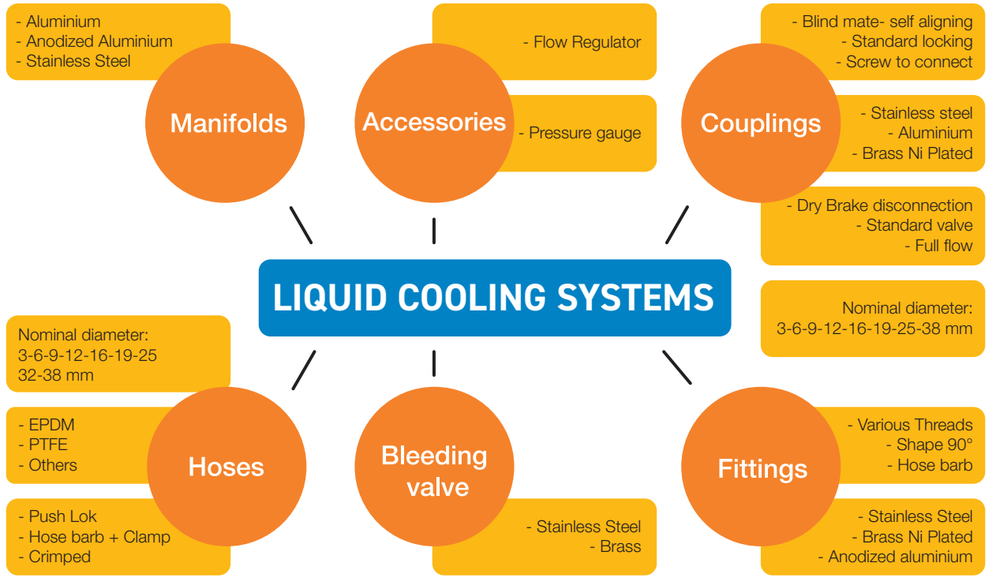
60 Years of Know-How

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

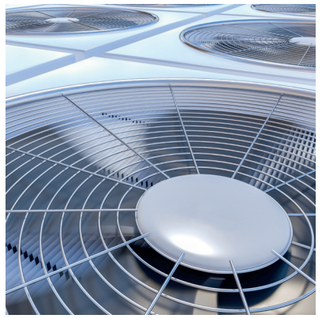
Rapidly increasing flows of goods and further increases in mobility demand extremely reliable and efficient vehicle concepts.

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	NSG-Series	UQD-Series	NSE-Series	NSA-Series	60-Series	ST-Series	Self Aligning - Blind mate couplings - NSIC/NSAC/NSEC	NSSC-Series	Customized System Solutions - MND Series
Valves Dry Break	yes	yes	yes	yes	yes	no	no valves	yes	yes	possible
Working Pressure	20 bar	11 bar	11 bar	15 bar	20 bar	20 bar	20 bar	20 bar	10 bar	up to 15 bar
Nominal Diameter (mm)	3/6/9/12	3	3.2/6.4	16/19/25	6/8/10/12/19/25	6/9/12/19/25/32	6/9/12/19/25	3/6/9/25	6/25/32	
Technical Description	• Two-hand operation • Push to connect version available on request	• Two-hand operation • Push to connect version available on request	• Fully interchange-able with other Intel-approved UQD suppliers	• Two-hand operation • Reduced dimensions compared to flow capacities	• Extreme lightweight (Aluminium)	• Two-hand operation	• Two-hand operation • No valve	• Blind connection • ± 1,5 mm misalign-ment allowed	• Two-hand operation • Screw to connect couplings with flat face valves.	Parker offers manifolds using RNS or cartridge couplings for blind mate connections
Material (Coupling Body)	Brass/Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Anodized Aluminium	Stainless Steel	Stainless Steel	Stainless steel /Aluminium /Brass nickel plated	Stainless Steel/Steel Zinc plated	on request
Seals (other seal variants on request)	FKM/EPDM	EPDM	EPDM	FKM/EPDM	Fluorosilicone	NBR/EPDM	Nitrile	FKM/EPDM	EPDM	on request
Working Temperature	-20°C up to +200°C (FKM)	-55°C up to +120°C	-55°C up to +120°C	-20°C up to +200°C (FKM)	-50°C up to +175°C (Fluorosilicone)	-20°C up to +120°C	-20°C up to +120°C	-20°C up to +200°C (FKM)	-55°C up to +120°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

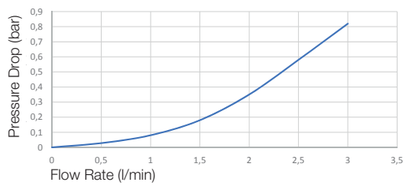
Coupling: Brass/Stainless Steel
Plug: Brass/Stainless Steel
Seals: FKM or EPDM
Other materials available on request.

Applications

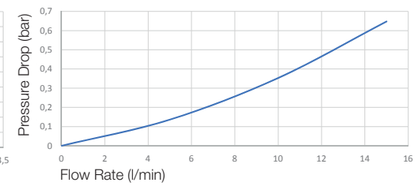
- Molding
- Electronic cabinets
- Laser
- Converters
- Radar, etc.
- Computers and telecommunications

Flow diagrams

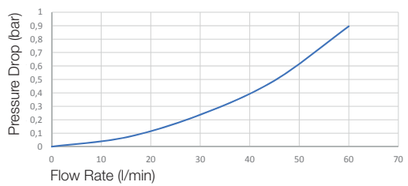
Water NSI Ø3 water



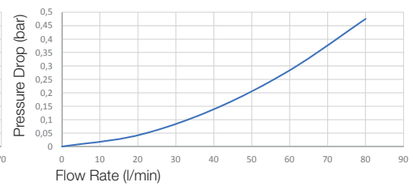
Water NSI Ø6 water



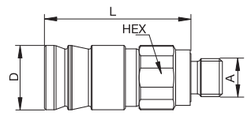
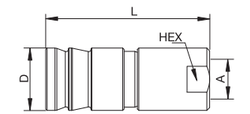
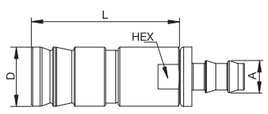
Water NSI Ø9 (water)



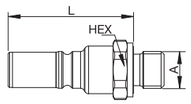
Water NSI Ø12 water



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 ⚠

Nominal Diameter

3

Parker Series

NSG

Technical Description
The NSG 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.

Working Temperature
-55°C up to +120°C
(Extended temperature range is possible, contact factory for more information).

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

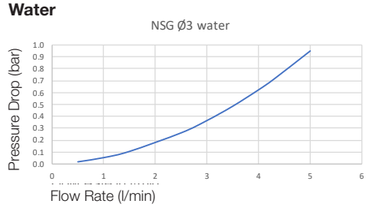
Dry-Break

Max. Working Pressure	Material
11 bar	**Coupling:** Stainless Steel **Plug:** Stainless Steel **Seals:** EPDM

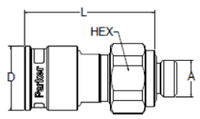
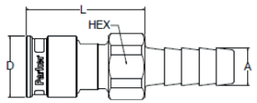
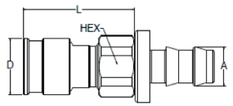
Applications
- Computers and telecommunications
- Electronic Cabinets

Flow diagrams

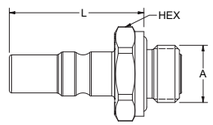
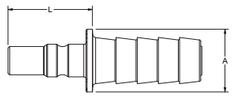
Water



Couplings — Series NSG

	DN	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	3	G 1/8	17.5	34.8	17.0	NSG-121-2MB
 Hose Barb	3	3/8" Hose Barb	17.5	33.3	17.0	NSG-121-6HB
 Parker Push-Lok	3	3/8" Pushlok	17.5	34.0	17.0	NSG-121-6PL

Plugs — Series NSG

	DN	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	3	G 1/8	14.3	22.7		NSG-122-2MB
 Hose Barb	3	3/8 Barb	14.3	19.3		NSG-122-6HB

⚠ Please consider our security advices in our main catalogues ⚠

Nominal Diameter

3.2/6.3

Parker Series

UQD

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

Working Temperature
-55°C up to +200°C (Extended temperature range is possible, contact factory for more information).

Advantages
- Fully interchangeable with other Intel-approved UQD suppliers

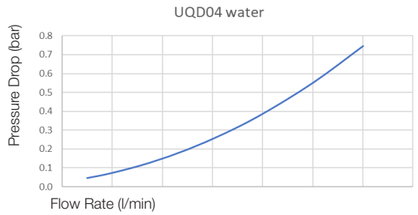
Dry-Break

Max. Working Pressure	Material
11 bar	**Coupling:** Stainless Steel **Plug:** Stainless Steel **Seals:** EPDM

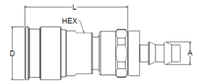
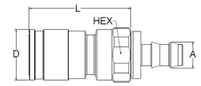
Applications
- Computers and telecommunications
- Electronic Cabinets

Flow diagrams

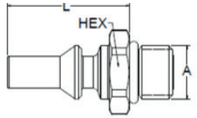
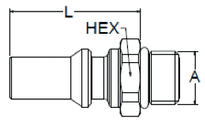
Water



Couplings — Series UQD

	DN	Connection A	HEX mm	L mm	D mm	Part Number
 Parker Push-Lok	3	1/4“ Pushlok	16	40.3	20.45	UQD-121-4PL
 Parker Push-Lok	6	3/8“ Pushlok	24	47.6	23.4	UQD-251-6PL

Plugs — Series UQD

	DN	Connection A	HEX mm	L mm	D mm	Part Number
 Male Thread	3	7/16-20 UNF -4ORB	16	25.5		UQD-122-4MO
 Male Thread	6	9/16 18 UNF	19	34.7		UQD-252-6MO

Blind Mate version UQDB series available on request.

Thermal Management

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)
depending on the medium.

Other seals materials are available on request.

Screw to connect version available on request (easy connection under residual pressure).

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

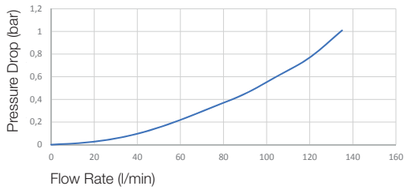
Coupling: Stainless Steel
Plug: Stainless Steel
Seals: FKM

Applications

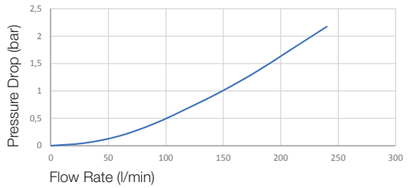
- Molding
- Electronic cabinets
- Laser
- Converters
- Radar, etc.

Flow diagrams

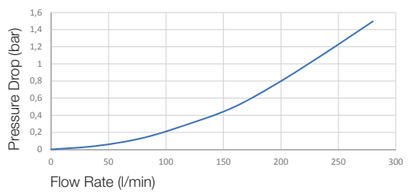
Water NSE Ø16 Water



Water NSE Ø19 Water

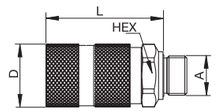
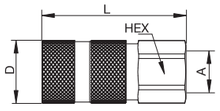
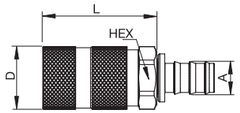


Water NSE Ø25 Water

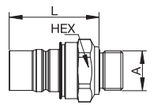
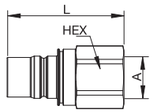
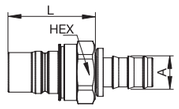


Thermal Management

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

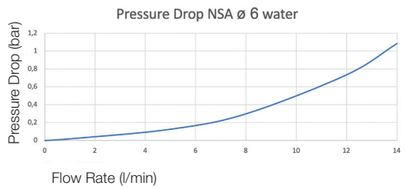
Coupling: Anodized Aluminium
Plug: Anodized Aluminium
Seals: Fluorosilicone

Applications

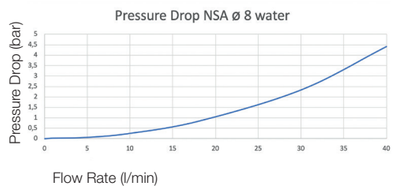
- Cooling of onboard electronic equipment, engines and batteries
- Cooling of converters, data centers, military equipment and medical imaging equipment

Flow diagrams

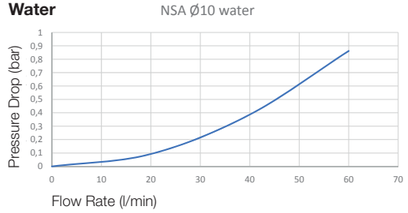
Water



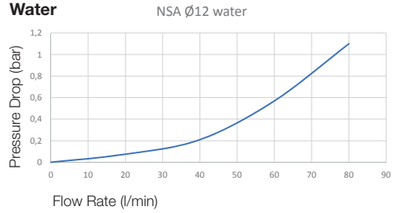
Water



Water



Water



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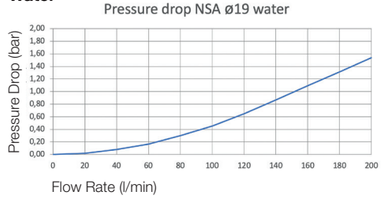
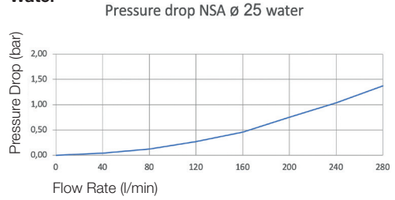
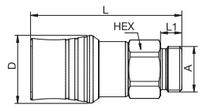
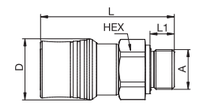
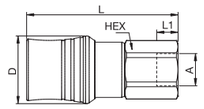
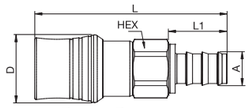


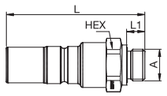
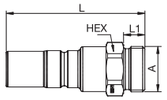
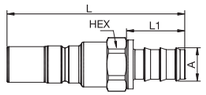
Water



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“ 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**.

Dry-Break

Max. Working Pressure

20 bar

Material

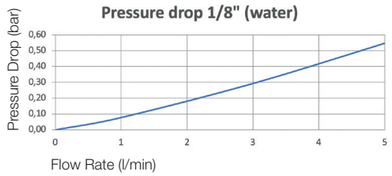
Coupling Body:	AISI 303	**Material Plug:**	AISI 303
Sleeve:	AISI 303	**Plug Body:**	AISI 303
Back-up Ring:	Stainless Steel	**Valve:**	AISI 303
Valve:	AISI 303	**Springs:**	Stainless Steel
Springs:	Stainless Steel	**Seals:**	NBR
Locking Balls:	Stainless Steel	**Valve Holder:**	Stainless Steel
Seals:	NBR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

Applications

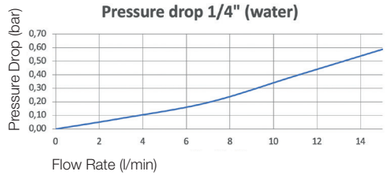
- Cooling of onboard electronic equipment, engines and batteries
- Cooling of converters, data centers, military equipment and medical imaging equipment
- Semiconductor industry
- Food and bottling industry
- Transport
- Power generation plants, hydroelectric power stations

Flow diagrams

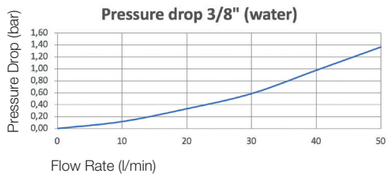
Water



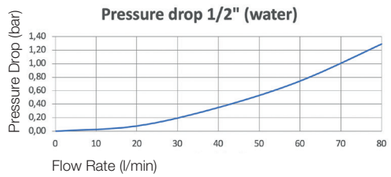
Water



Water



Water



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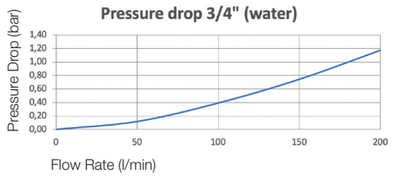
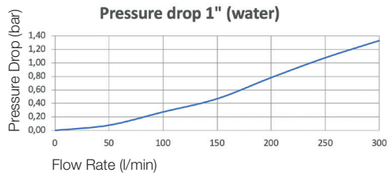
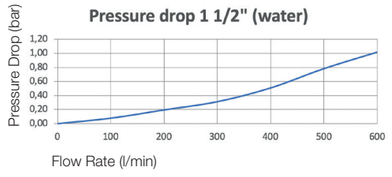


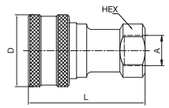
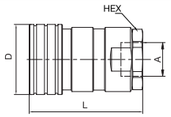
Water



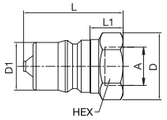
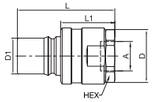
Water



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

1/4 up to 1“

ST-Series

Technical Description
Non-valved couplings.
Maximal flow. Minimal pressure drop. Easy cleaning. This series is also manufactured as an alternative in brass and AISI 316 material.

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

Special seals are available on request.

Advantages
No valving allows minimal pressure drop, maximal flow and easy cleaning.

Sleeve-Lock
ST series couplers can be furnished with locking sleeves. Place suffix letters **SL** (Sleeve-lock) after regular catalog numbers. Example: **SST-4M-SL**

Dry-Break

Max. Working Pressure

20 bar

Material

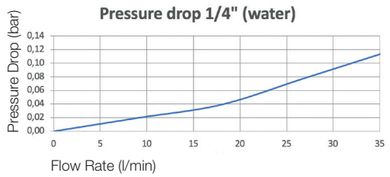
Material Coupling:	Stainless Steel	**Valve:**	AISI 303
Coupling Body:	AISI 303	**Seals:**	NBR
Sleeve:	AISI 303	**Locking Balls:**	AISI 303
Back-up Ring:	AISI 303	**Material Plug:**	Stainless Steel
		Plug Body:	AISI 303

Applications

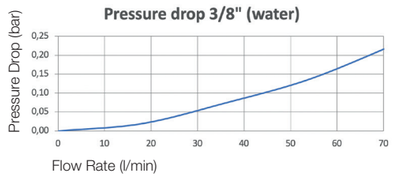
- Mold coolant lines
- Food industry
- High pressure water and steam washers
- Water distribution lines

Flow diagrams

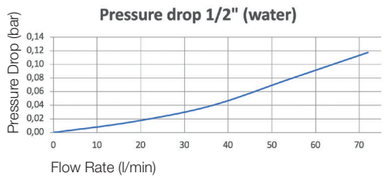
Water



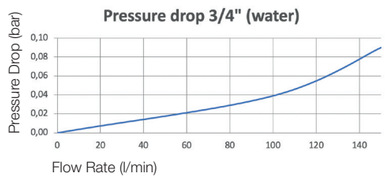
Water



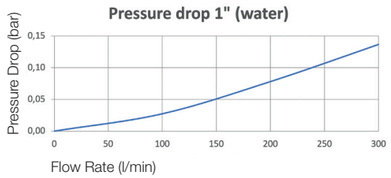
Water



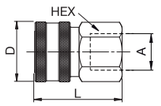
Water



Water



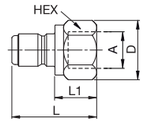
Couplings — ST-Series Stainless Steel



Female Thread

Body Size	Connection A	Thread	Hex	L mm	L1 mm	L2 mm	D mm	Bore mm	Version	Weight gr.	Part Number
1/4"	1/4"	BSPP	13/16"	39,1			23,8	6,4	AISI 303	74	SST-2-BSPP
3/8"	3/8"	BSPP	1"	41,7			29,0	9,5	AISI 303	115	SST-3-BSPP
1/2"	1/2"	BSPP	1 1/8"	50,3			33,3	11,9	AISI 303	172	SST-4-BSPP
3/4"	3/4"	BSPP	1 7/16"	54,6			41,7	18,3	AISI 303	268	SST-6-BSPP
1"	1"	BSPP	1 3/4"	62			51,3	23,8	AISI 303		SST-8-BSPP

Plugs — ST-Series Stainless Steel



Female Thread

Body Size	Connection A	Thread	Hex	L mm	L1 mm	L2 mm	D mm	Bore mm	Version	Weight gr.	Part Number
1/4"	1/4"	BSPP	3/4"	37,1	18,1		21,9	6,4	AISI 303	36	SST-N2-BSPP
3/8"	3/8"	BSPP	7/8"	41,3	19,1		25,6	9,5	AISI 303	53	SST-N3-BSPP
1/2"	1/2"	BSPP	1 1/8"	48,5	24,7		32,9	11,9	AISI 303	103	SST-N4-BSPP
3/4"	3/4"	BSPP	1 3/8"	54,5	26,5		40,2	18,3	AISI 303	156	SST-N6-BSPP
1"	1"	BSPP	1 5/8"	59,5	29,0		47,5	23,8	AISI 303		SST-N8-BSPP

⚠ Please consider our security advices in our main catalogues ⚠

Body Size

3 up to 9

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

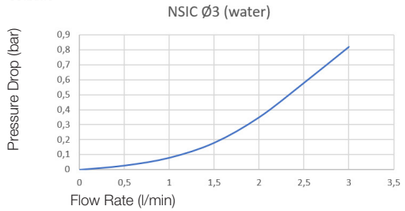
Coupling: Brass Ni plated or Stainless Steel
Plug: Brass Ni plated or Stainless Steel
Seals: FKM
Other materials available on request.

Applications

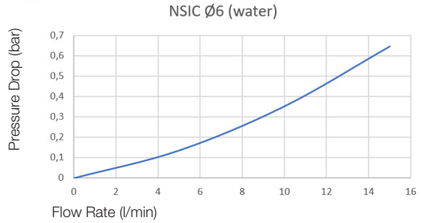
- Electronic cabinets
- Converters
- Radar
- Computer and telecommunications

Flow diagrams

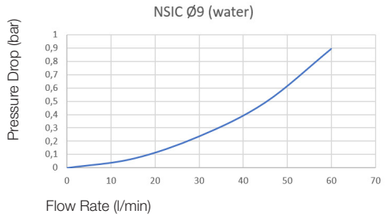
Water



Water

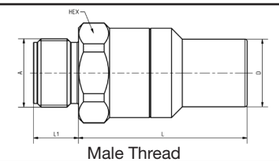


Water



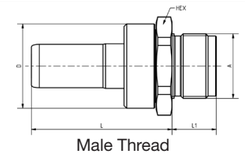
Thermal Management

Couplings NSIC-Series

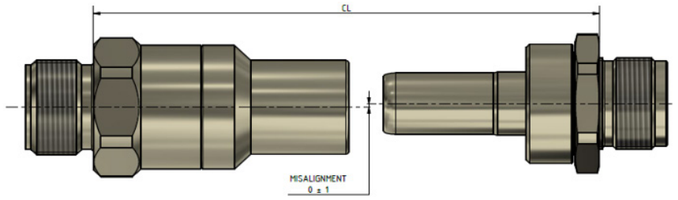
	Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
	3	M11x1	16	22.6	12	13	31.9	On request	NSIC-121-11MM-E
	3	7/12-20 UNF	14	20.9	11.6	15.5	25.7	On request	NSIC-121-4MO-ES3
	6	G 3/8	24	47.5	12	20	116	On request	NSIC-251-6MBO-E
	9	1-20 UNEF - 2A (A LOK)	35	65.9	37.3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

Male Thread

Nipples 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

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

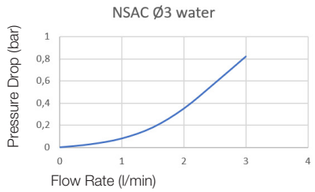
Coupling: Anodized Aluminium
Plug: Anodized Aluminium
Seals: EPDM

Applications

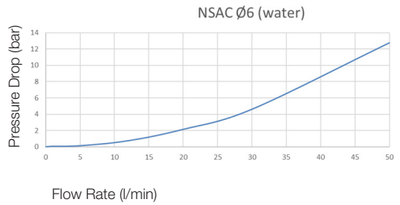
- Electronic cabinets
- Converters
- Radar
- Computer and telecommunications

Flow diagrams

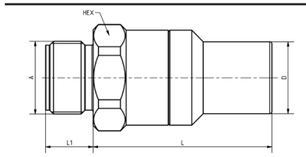
Water



Water



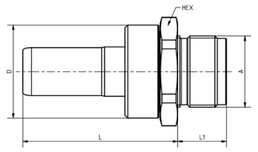
Couplings — NSAC-Series



Male Thread

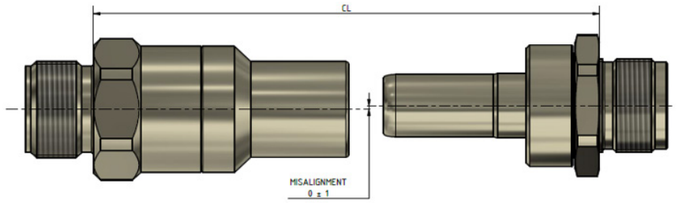
Body Size	Connection A	Hex	L mm	L1 mm	D mm	Weight gr.	CL mm (Connected length)	Part Number
3	M11x1	14	22	12,5	13	11	On request	NSAC-121-11MM-E
6	M18x1,5	24	27	15	20	28	On request	NSAC-251-18MM-E

Nipples — NSAC-Series



Male Thread

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



⚠ Please consider our security advices in our main catalogues ⚠

Body Size

25

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

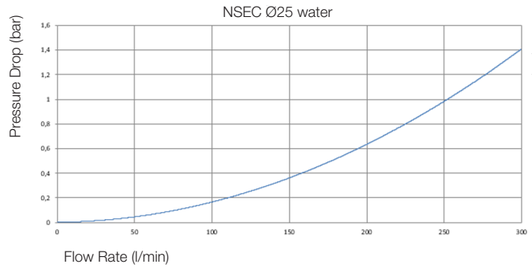
Coupling: Stainless Steel
Plug: Stainless Steel
Seals: EPDM

Applications

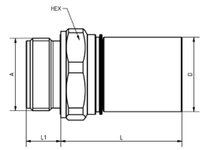
- Electronic cabinets
- Converters
- Radar
- Computer and telecommunications

Flow diagrams

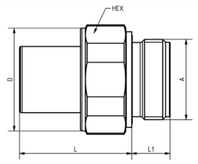
Water



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

Nipples 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

6 up to 32

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

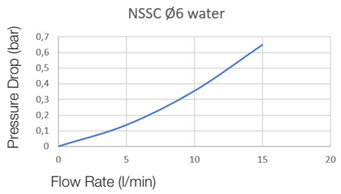
Coupling: Stainless Steel/Steel Zinc plated
Plug: Stainless Steel
Seals: FKM or EPDM
Other materials available on request.

Applications

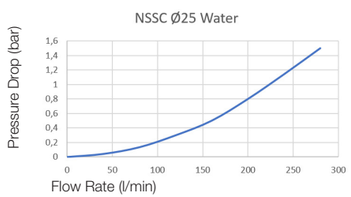
- Molding
- Electronic cabinets
- Laser
- Converters
- Radar
- Datacenters/Servers
- High Performance Computers

Flow diagrams

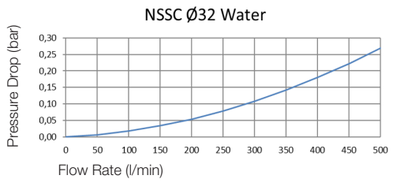
Water



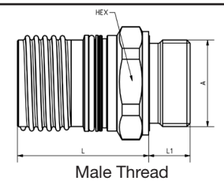
Water



Water

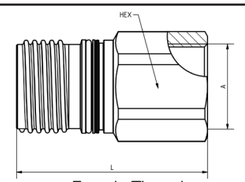


Couplings — NSSC-Series

	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

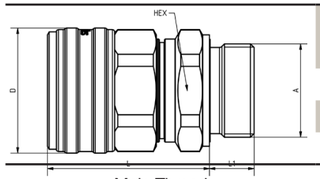
Male Thread

Couplings — NSSC-Series

	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

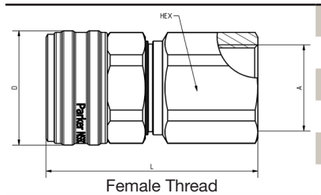
Female Thread

Nipples — NSSC-Series

	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

Male Thread

Nipples — NSSC-Series

	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

Female Thread

⚠ Please consider our security advices in our main catalogues ⚠

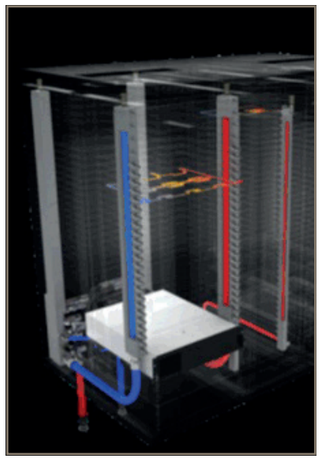
“Plug & Play” - Customized Systems

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.

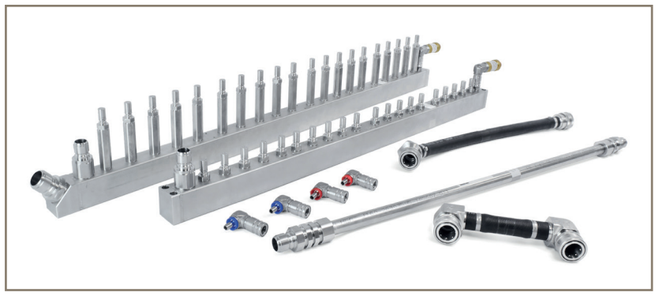
Our solutions include:

- **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.

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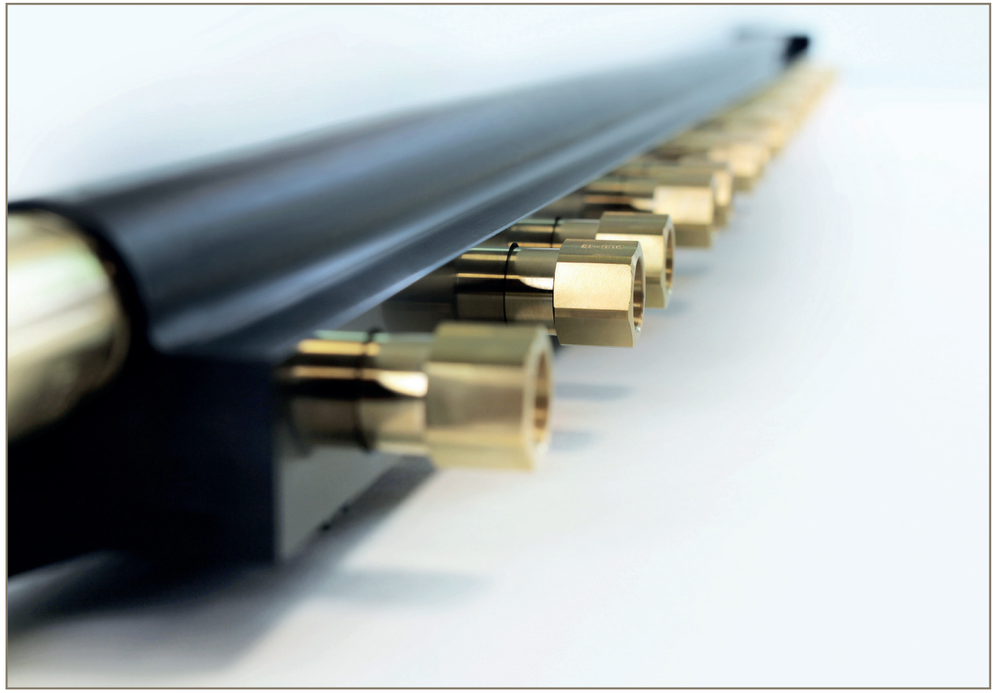
Optimize your profitability and commit to a sustainable future. By choosing Parker, you benefit from enhanced performance of your equipment, extended reliability of your investments, and an active contribution to environmental protection.



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