

MICRO-NANO

PRODUCTS FOR COOLANT DISTRIBUTION
PRODUCTOS PARA LA DISTRIBUCIÓN DE REFRIGERANTE

PRODUCTIVITY AND SAFETY IMPROVEMENTS IN CNC MACHINE-TOOLS
MEJORA DE LA PRODUCTIVIDAD Y LA SEGURIDAD EN LAS MÁQUINAS-HERRAMIENTA CNC

INTRODUCTION

INTRODUCCIÓN

QUICK COUPLING FITTINGS

ENCHUFES RÁPIDOS

NA/MI-QC-01

Quick coupling fitting
Enchufe rápido



NA/MI-QC-02

Quick coupling fitting with integrated banjo
Enchufe rápido con banjo integrado



NA/MI-QC-03

Quick coupling fitting with short banjo and integrated rotary
banjo bolt
Enchufe rápido con banjo y tornillo de banjo rotativo integrado



ADAPTORS, NUTS, COMPRESSION RINGS, SPACERS AND BALL ADAPTORS

ADAPTADORES, TUERCAS, ANILLOS DE CIERRE, SEPARADORES Y ADAPTADORES DE BOLA

NA/MI-CA-01 (Fig. 1)

Adaptors (Female to Male)
Adaptadores (Hembra a Macho)



NA/MI-CA-01 (Fig. 2)

Adaptors (Female to Female)
Adaptadores (Hembra a Hembra)



NA/MI-CA-01 (Fig. 3)

Adaptors (Male to Male)
Adaptadores (Macho a Macho)



NA/MI-CA-01 (Fig. 3)

Adaptors (Male to Male)
Adaptadores (Macho a Macho)



NA/MI-CA-01 (Fig. 1)

Nut for compression ring
Tuerca para anillo de cierre



NA/MI-CA-02

Compression ring
Anillo de cierre



NA/MI-CA-03

Spacers (Female to Male)
Separadores (Hembra a Macho)



MI-CA-05

Ball adaptors (Female)
Adaptadores de bola (Hembra)



BANJOS AND BANJO BOLTS

BANJOS Y TORNILLOS DE BANJO

NA/MI-CA-01 (Fig. 1)

90° Short banjo (Female)
Banjo corto 90° (Hembra)



NA/MI-CA-04 (Fig. 2)

90° Short banjo (Male)
Banjo corto 90° (Macho)



NA/MI-CA-04 (Fig. 3)

90° Long banjo (Female)
Banjo largo 90° (Hembra)



NA/MI-CA-04 (Fig. 4)

45° Long banjo (Female)
Banjo largo 45° (Hembra)



NA/MI-CA-04 (Fig.5)

Banjo bolt (Male)
Tornillo de banjo (Macho)



NA/MI-CA-04 (Fig. 6)

Double length banjo bolt (Male)
Tornillo de banjo de doble longitud (Macho)



NA-CA-04 (Fig. 7)

Banjo bolt for pre-assembled banjo (Male)
Tornillo de banjo para banjo pre-montado (Macho)



FLOW ADJUSTMENT VALVES

VÁLVULAS DE AJUSTE DE CAUDAL

NA/MI-FA-01

Flow adjustment valve straight
Válvula de ajuste de caudal recta



NA/MI-FA-02

Flow adjustment valve for banjo
Válvula de ajuste de caudal para banjo



QUICK CONNECTION FITTINGS AND PLUGS

CLAVIJAS DE ENCHUFE RÁPIDO Y TAPONES

NA/MI-CC-01 (Fig. 1)

Quick connection fitting (Female)
Clavijas de enchufe rápido (Hembra)



NA/MI-CC-01 (Fig. 2)

90° Short banjo (Male) Non-rotating quick connection fitting (Female)
Clavijas de enchufe rápido antigiro (Hembra)



NA/MI-CC-01 (Fig. 3)

Non-rotating quick connection fitting (Male)
Clavijas de enchufe rápido antigiro (Macho)



NA/MI-CC-01 (Fig. 4)

Sealing plug for quick coupling
Clavija de sellado enchufe rápido.



NA/MI-CC-01 (Fig.5)

Sealing plug (Male)
Tapón de sellado (Macho)



MI-CC-01 (Fig.6)

Sealing plug (Male)
Tapón de sellado (Macho)



COPPER DISTRIBUTION TUBES

TUBOS DE DISTRIBUCIÓN DE COBRE

NA/MI-DT-02

Copper distribution tubes (Male)
Tubos de distribución de cobre (Macho)



FLEXIBLE DISTRIBUTION TUBES

TUBOS DE DISTRIBUCIÓN FLEXIBLES

NA/MI-DT-01

Flexible distribution tubes (Male - Male)
Tubos de distribución flexibles (Macho - Macho)



NA/MI-DT-03

Distribution tubes (Male-Quick connector plug)
Tubos de distribución (Macho- Clavija enchufe rápido)



NA/MI-DT-05

Distribution tubes (Quick connector plug- Quick connector plug)
Tubos de distribución (Clavija enchufe rápido- Clavija enchufe rápido)



COOLANT DISTRIBUTION BLOCKS

BLOQUES DE DISTRIBUCION DE REFRIGERANTE

NA/MI-DB (Fig. 1)

Standard distribution block
Bloque de distribución estándar



NA-DB (Fig. 2)

Compact distribution block
Bloque de distribución compacto



SEALING GASKETS

ARANDELAS DE ESTANQUEIDAD

UN-SG-01

Copper sealing gasket
Arandela de estanqueidad de cobre



UN-SG-02

Aluminum sealing gasket
Arandela de estanqueidad de aluminio



WRENCHES

LLAVES DE APRIETE

NA/MI-FK

Fastening keys
Llaves de apriete



BANJO KITS

KITS BANJO

NA/MI-BK-01 (Fig. 1) Banjo Kit (Short banjo + Bolt + Quick coupling fitting. Free rotation)
Kit de Banjo (Banjo corto + Enchufe rápido. Rotación libre)



NA/MI-BK-01 (Fig. 2) Banjo Kit (Short banjo + Bolt + Quick coupling fitting. With positioning)
Kit de Banjo (Banjo corto + Tornillo + Enchufe rápido. Con posicionamiento)



NA/MI-BK-11 (Fig. 2) Banjo Kit (2 x Short banjo + Bolt double length+ 2 x Quick coupling fitting)
Kit de Banjo (2 x Banjo corto + Tornillo doble longitud+ 2 x Enchufe rápido)



COPPER TUBE KITS

KITS TUBOS DE COBRE

NA/MI-CK-01

Copper Kit (Copper tube NA/MI-DT-02 + Quick coupling. With positioning)
Kit tubo de cobre (Tubo de cobre NA/MI-DT-02 + Enchufe rápido. Con posicionamiento)



FLEXIBLE TUBE KITS

KITS TUBOS FLEXIBLES

NA/MI-SK-01

Starter Kit (Flexible tube NA/MI-DT-03 + Quick coupling fitting)
Kit de iniciación (Tubo flexible NA/MI-DT-03 + Enchufe rápido)



NA/MI-SK-02

Starter Kit (Flexible tube NA/MI-DT-05 + Quick coupling fitting x 2)
Kit de iniciación (Tubo flexible NA/MI-DT-05 + Enchufe rápido x 2)



NA/MI-SK-03

Starter Kit (Flexible tube NA/MI-DT-03 + Quick coupling fitting with short banjo and integrated rotary banjo bolt)
Kit de iniciación (Tubo flexible MI/NA-DT-03 + Enchufe rápido con banjo y tornillo de banjo rotativo integrado)



NA/MI-SK-04

Starter Kit (Flexible tube NA/MI-DT-05 + Quick coupling fitting+ Quick coupling fitting with short banjo and integrated rotary banjo bolt)
Kit de iniciación (Tubo flexible MI/NA-DT-05 + Enchufe rápido + Enchufe rápido con banjo y tornillo de banjo rotativo integrado)



STARTER KITS

KITS DE INICIACIÓN

NA-SK-10-00

Basic set Swiss-type lathe NANO
Set básico torno de cabezal móvil NANO



MI-SK-10-00

Basic set Swiss-type lathe MICRO
Set básico torno de cabezal móvil MICRO



NA-SK-20-00

Extended set Swiss-type lathe NANO
Set extendido torno de cabezal móvil NANO



MI-SK-20-00

Extended set Swiss-type lathe MICRO
Set extendido torno de cabezal móvil MICRO



INTRODUCTION

INTRODUCCIÓN

Coolant distribution system (for cutting oil and emulsion) totally flexible and modular, capable of withstanding pressures of 220 Bar and ideal for use with mid or high-pressure coolant equipment.

Sistema de distribución de refrigerante (para taladrina y aceite de corte) totalmente flexible y modular, capaz de soportar presiones de 220 Bar e ideal para el uso con equipos de refrigeración de media o alta presión.

FAST, FLEXIBLE AND SAFE TOOL ASSEMBLY
MONTAJE DE HERRAMIENTAS RÁPIDO, FLEXIBLE Y SEGURO



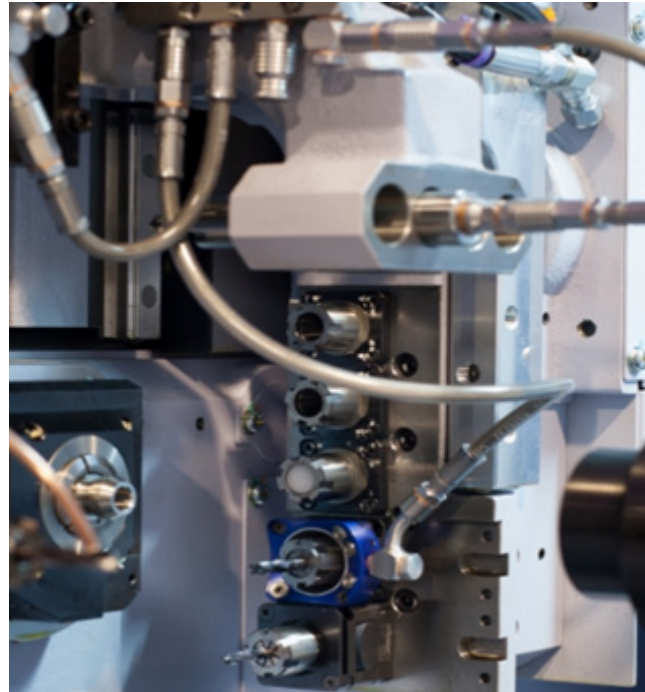
Reduce tool change time by up to 75%
Reduzca el tiempo de cambio de herramientas hasta un 75%

The SCS coolant distribution systems were born in response to the need to leverage all the advantages that high-pressure offers and make preparations for the machining of parts in a fast, flexible, safe, interference-free manner that guarantees correct orientation of the coolant flow to the cutting point of the tool and with the desired flow rate.

Los sistemas de distribución de refrigerante SCS nacen como respuesta a la necesidad de poder aprovechar todas las ventajas que ofrece la alta presión y realizar preparaciones para el mecanizado de piezas de una manera rápida, flexible, segura, libre de interferencias y que garanticen la correcta orientación del flujo de refrigerante al punto de corte de la herramienta y con el caudal deseado.

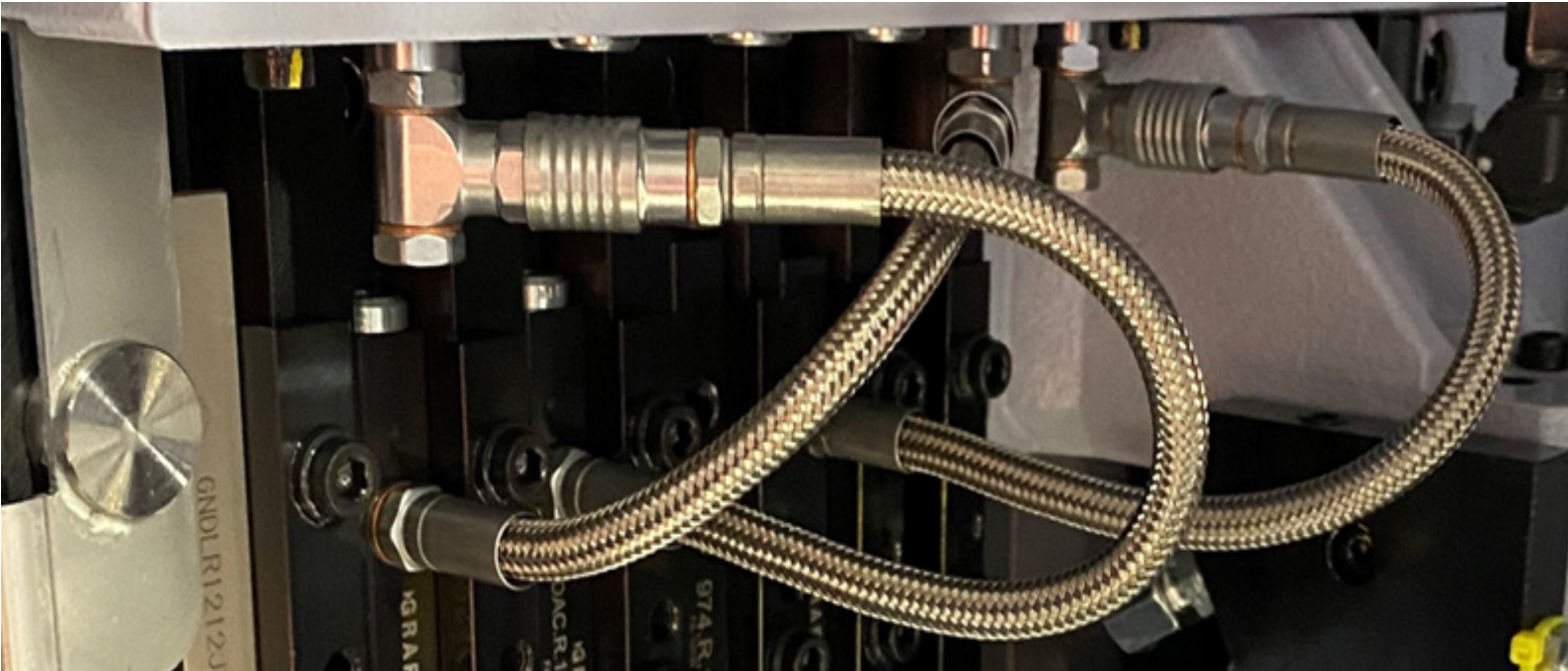
ADVANTAGES: VENTAJAS:

- ✓ Quick and precise preparations - The coolant stream is directed to the tool cutting point and with the required flow. Time reduction in preparations and better machining conditions are easily achieved.
Preparaciones rápidas y precisas - El flujo de refrigerante se dirige al punto de corte de la herramienta y con el caudal necesario. Se obtienen reducciones de tiempo en las preparaciones y mejores condiciones de mecanizado de una manera fácil.
- ✓ Allows for optimal distribution of the stream of coolant to the different tool holders, thus not depending on the skills or ability of the operator making the preparation.
Permite una distribución óptima del refrigerante a los diferentes portaherramientas sin que su rendimiento dependa del operario que realiza la preparación.
- ✓ Guarantees that after a tool change the coolant outlets remain in the same position and do not change even if done by different machine operators.
Garantiza que, tras un cambio de herramienta, las salidas de refrigerante quedan en la misma posición y no se ven alternadas en función del operario que realiza dicho cambio.
- ✓ Ease of adaptation - quick couplings and a huge range of adaptors to different types of threads for tool holders or distribution blocks.
Facilidad de adaptación - enchufes rápidos y una gran selección de adaptadores para diferentes tipos de rosca para portaherramientas o bloques de distribución.
- ✓ Flexible and reinforced tubes - Protected to withstand the impact of hot chips and pressures up to 220 Bar.
Tubos flexibles y blindados - Protegidos para aguantar el impacto de la viruta caliente y presiones de hasta 220 Bar.
- ✓ Both programs can be connected with each other and with the Articulated Steel Flexible Distribution Tubes DECA and HECTO programs.
Ambos programas pueden conectarse entre sí y con los programas DECA and HECTO de tubos de distribución articulados de acero.
- ✓ Easy to identify different threads: BSP threads have 1 mark in the hexagon area and NPT threads have 2 marks. Metric threads have no marks.
Fácil identificación de las diferentes roscas: Las roscas BSP tienen 1 marca en la zona del hexágono y las roscas NPT tienen 2 marcas. Las roscas métricas no tienen marcas.



Increased tool life and efficiency - Better surface quality, and higher productivity. (Ideal for sliding-head lathes, multi-spindle lathes, fixed-head lathes or transfer machines).

Incremente la vida de herramienta y su eficiencia - Mejor calidad superficial, y mayor productividad (Ideal para tornos de cabezal móvil, tornos multihusillo, tornos de cabezal fijo o máquinas transfer).



Coolant distribution systems with quick connection for medium and high-pressure machining.

Coolant distribution system with flexible tubes braided in stainless steel, quick connectors, copper tubes, adaptors and distribution blocks in 2 different size programs for both medium and high-pressure. Ideal for sliding and fixed headstock CNC lathes, multi-spindle lathes or transfer machines.

Sistemas de distribución de refrigerante con conexión rápida para el mecanizado con media y alta presión.

Sistema de distribución de refrigerante con tubos flexibles trenzados en acero inoxidable, enchufes rápidos, tubos de cobre, adaptadores y bloques de distribución con 2 programas de medidas diferentes tanto para media y alta presión. Ideal para tornos CNC de cabezal móvil como cabezal fijo, tornos multihusillo o máquinas transfer.

Features / Características	MICRO	NANO
Minimum internal diameter of the program Paso interior mínimo del programa	3.8 mm	2.3 mm
Main program thread Rosca principal del programa	M8x1	M6x1
Manufacturing material of components Material de los elementos	Coated Steel Acero con tratamiento	Coated Steel Acero con tratamiento
Basic assembly wrench for the system Llave de montaje básica para el sistema	SW11	SW8
Ideal for square tool shank dimension Ideal para herramientas de cuadrado	16x16, 20x20, 25x25	8x8, 10x10, 12x12
Ideal for cylindrical tool shank dimension Ideal para herramientas de mango cilíndrico de dimensión	Ø ≥ 16 mm	Ø < 16 mm
Ideal for collet holder size Ideal para portapinzas de tamaño	Collet ≥ ER-16 Pinza ≥ ER-16	Collet ≤ ER-11 Pinza ≤ ER-11
External diameter of flexible distribution tube Diámetro exterior tubo flexible	8 mm	6.5 mm
Minimum bending radius of flexible distribution tube Mínimo radio de curvatura de los tubos de distribución flexible	30 mm	15 mm
External diameter of copper tube Diámetro exterior tubo de cobre	4 mm	3 mm
Quick connector dimensions Dimensión enchufe rápido	OD: 13.5 mm L: 17 mm DE: 13,5 mm L: 17 mm	OD: 9.8 mm L: 11.4 mm DE: 9,8 mm L: 11,4 mm

NOTE: All dimensions in this catalogue are in mm.

NOTA: Todas las dimensiones en este catálogo son en mm.

How to choose the Coolant Distribution System for Sliding Head Lathes?
(Widely used in Sliding headstock CNC lathes, but also in Fixed headstock CNC lathes, Multi-spindle lathes or Transfer machines)

¿Cómo elegir el sistema de distribución de refrigerante para tornos de cabezal móvil?
(Ampliamente utilizado en tornos CNC de cabezal móvil, pero también en tornos CNC de cabezal fijo, tornos multihusillo o máquinas Transfer)

FOLLOW THE STEPS BELOW:
SIGA LOS PASOS DE MÁS ABAJO:

STEP 1:
PASO 1:

Select where you want to do the installation:
- Coolant distribution block or machine's own connection.
- SCS coolant distribution block.

Seleccione donde se desea hacer la instalación:
- Bloque de distribución de refrigerante o conexión propia de la máquina.
- Bloque de distribución de refrigerante SCS.



STEP 2:
PASO 2:

Select product family MICRO (3.8 mm) or NANO (2.3 mm).
Select according to the required flow rate, the available pressure and the size of the tools to be cooled

Seleccione familia de producto. MICRO (3.8 mm) o NANO (2.3 mm).
Seleccione en función del caudal requerido y la presión de refrigerante disponible y la dimensión de las herramientas a refrigerar



STEP 3:
PASO 3:

Identify the necessary thread type or ball diameter to connect to the block or to the machine.
Identify the type of thread where to connect the coolant distribution system. Example: M6x1, M8x1, BSPP 1/8", NPT 1/8", ...

Identifique el tipo de rosca o diámetro de la bola para conectar con el bloque de distribución o a la máquina.
Identifique el tipo de rosca donde se debe conectar el sistema de distribución de refrigerante. Ejemplo: M6x1, M8x1, BSPP 1/8", NPT 1/8", ...



STEP 4:
PASO 4:

What do you want to mount on the side of the connection to the block?
You can place a straight spacer, a 45° outlet (curved banjo) or a 90° outlet (banjo) and then connect a quick coupling, a flexible tube, a copper tube or directly these elements.
If the thread of the distribution block does not match the thread of the range of banjo bolts, quick release couplings, flexible tubes, etc., you can use the necessary adaptor.
If you fit a quick coupling, you can attach a flexible tube or a copper tube with the quick connection system.

¿Qué desea montar en el lado de la conexión al bloque?
Puede colocar un separador recto, una salida de 45° (banjo curvo) o una salida de 90° (banjo) y, a continuación, conectar un acoplamiento rápido, un tubo flexible, un tubo de cobre o directamente estos elementos.
Si la rosca del bloque de distribución no coincide con la rosca de la gama de pernos banjo, acoplamientos rápidos, tubos flexibles, etc., puede utilizar el adaptador necesario.
Si monta un acoplamiento rápido, puede acoplar un tubo flexible o un tubo de cobre con el sistema de conexión rápida.



STEP 5:
PASO 5:

What length of tube do you need?
Whether it is a flexible or copper tube, determine the required length. In case of selecting a flexible tube, identify the necessary length to connect the coolant distribution block to the tool. Special lengths are available under request.
In case of selecting a copper tube to duct coolant from the distribution block to the cutting edge of the tool, then no additional parts are required.

¿Qué longitud de tubo necesita?
Si se trata de un tubo flexible o de cobre, determine la longitud necesaria.
Para conectar el bloque de distribución de refrigerante a la herramienta. Longitudes especiales disponibles bajo pedido.
Si selecciona un tubo de cobre para conducir el refrigerante desde el bloque de distribución hasta el filo de corte de la herramienta, no necesitará piezas adicionales.



Continuation:
Continuación:

STEP 6:
PASO 6:

Identify the type of thread on the shank of the tool or tool holder.
Example: M6x1, M8x1, BSPP 1/8", NPT 1/8", etc.

Identifique el tipo de rosca del mango de la herramienta o del portaherramientas.
Ejemplo: M6x1, M8x1, BSPP 1/8", NPT 1/8", etc.



STEP 7:
PASO 7:

What do you want to mount on the side of the cutting tool connection?
You can fit a straight spacer, a 45° outlet (curved banjo) or a 90° outlet (banjo) and then connect a quick coupling or just connect the flexible tube directly.
If the thread of the tool does not match the thread of the range of spacers, banjo bolts, quick release couplings or flexible tubes, you can use the necessary adapter.
At least one quick connection coupling must be always included either on the connection side to the distribution block or on the connection side to the tool.



¿Qué desea montar en el lado de la conexión de la herramienta?
Puede montar un espaciador recto, una salida de 45° (banjo curvo) o una salida de 90° (banjo) y, a continuación, conectar un acoplamiento rápido o acoplar el tubo flexible directamente.
Si la rosca de la herramienta de corte no coincide con la rosca de la gama de espaciadores, pernos banjo, acoplamiento rápido o mangueras, puede utilizar el adaptador necesario.
Siempre debe incluir en el lado de conexión al bloque de distribución o en el lado de conexión a la herramienta al menos un acoplamiento rápido.

STEP 8:
PASO 8:

Select type of sealing washers, if liquid tightness is required (fittings with parallel threads).
You can select the washers of the required size and material: copper or aluminum.

Seleccione el tipo de arandelas de sellado, si se requiere estanqueidad (racores con roscas paralelas).
Puede seleccionar las arandelas del tamaño y material requeridos: cobre o aluminio.





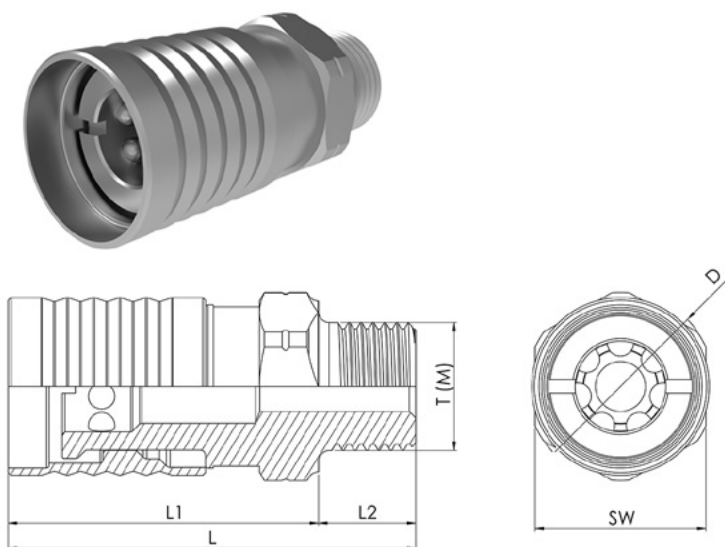
QUICK COUPLING FITTINGS

ENCHUFES RÁPIDOS

NA/MI-QC-01

Quick coupling fitting.
For quick connection of distribution tubes.
Material: Coated Steel.

Enchufe rápido.
Para conexión rápida de tubos de distribución.
Material: Acero recubierto.



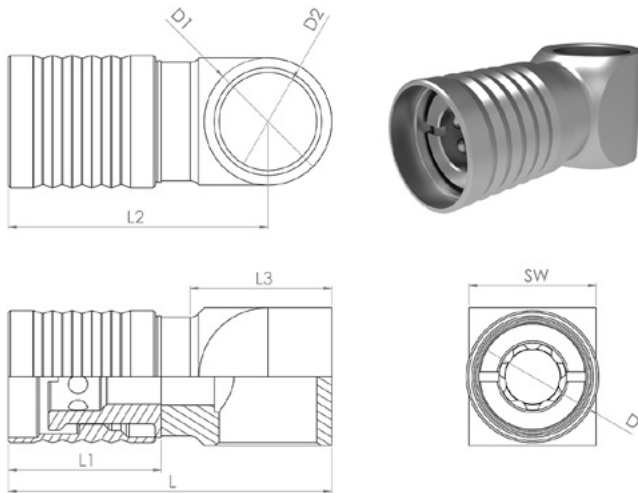
ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(M)	L	L1	L2	SW	D
NA-QC-01-02	QUICK COUPLING NANO M5x0.8(M)	NANO	Ø2.3	M5x0.8	18.4	13.9	4.5	8	Ø9.8
NA-QC-01-00	QUICK COUPLING NANO M6x1(M)			M6x1	18.4	13.9	4.5	8	Ø9.8
NA-QC-01-04	QUICK COUPLING NANO M8x1(M)			M8X1	23.8	17.3	6.5	10	Ø11
NA-QC-01-01	QUICK COUPLING NANO M8x1 KEG(M)			M8x1 KEG	20.4	13.6	6.8	8	Ø9.8
NA-QC-01-03	QUICK COUPLING NANO UNF5/16"(M)			UNF5/16"-24(M)	23.8	17.3	6.5	8	Ø11
MI-QC-01-00	QUICK COUPLING MICRO M8x1(M)	MICRO	Ø3.8	M8x1	25.3	18.8	6.5	11	Ø13.5
MI-QC-01-01	QUICK COUPLING MICRO M10x1 KEG(M)			M10x1 KEG	26.4	18.5	7.9	11	Ø13.5
MI-QC-01-03	QUICK COUPLING MICRO BSPP1/8"(M)			BSPP1/8"-28	30.4	23.6	6.8	13	Ø13.5
MI-QC-01-02	QUICK COUPLING MICRO BSPT1/8"(M)			BSPT1/8"-28	25.9	18.8	7.1	11	Ø13.5

NA/MI-QC-02



Quick coupling fitting with integrated banjo.
 For quick connection of distribution tubes at 90° angle saving space and assembly time.
 Material: Coated Steel.

Enchufe rápido con banjo integrado.
 Para conexión rápida de tubos de distribución en ángulo a 90° ahorrando espacio y tiempo de montaje.
 Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	L	L1	L2	L3	L4	SW	D	D1	D2
NA-QC-02-00	QUICK COUPLING NANO WITH INTEGRATED SHORT BANJO FOR M5 OR M6 BOLT	NANO	Ø4.0	22.6	11.1	18.1	9.7	9.0	9	Ø9.8	Ø9.0	Ø6.0
MI-QC-02-00	QUICK COUPLING MICRO WITH INTEGRATED SHORT BANJO FOR M8 BOLT	NANO	Ø5.6	33.0	15.6	26.5	14.4	11.0	11	Ø13.5	Ø11.0	Ø8.0
MI-QC-02-01	QUICK COUPLING MICRO WITH INTEGRATED SHORT BANJO FOR M10 OR BSPP1/8" BOLT		Ø3.8	30.8	15.6	25.3	12.2	13.0	13	Ø13.5	Ø13.0	Ø10.0

NA/MI-QC-03



Quick coupling fitting with short banjo and integrated rotary banjo bolt.

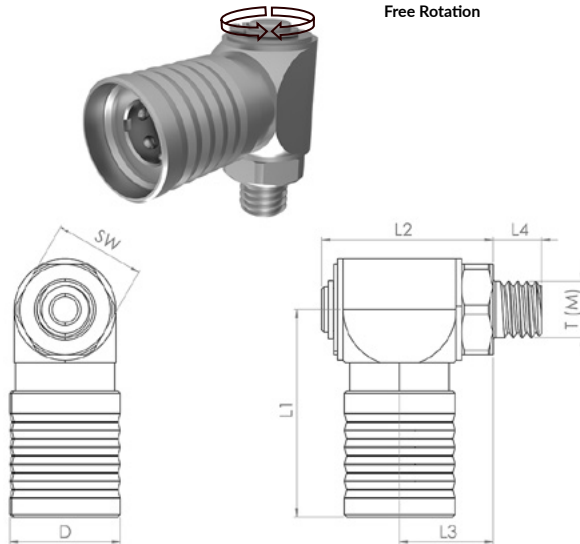
For quick connection of flexible distribution tubes at 90° angle and especially useful when installing it in a moving gang as it allows the distribution tube to move.

Material: Coated Steel.

Enchufe rápido con banjo y tornillo de banjo rotativo integrado.

Para conexión rápida de tubos de distribución flexibles en ángulo a 90° y especialmente útil cuando se instala en un peine en movimiento ya que permite que el tubo de distribución se mueva.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(M)	L1	L2	L3	L4	SW	D
NA-QC-03-01	QUICK COUPLING NANO W/ ROTARY SHORT BANJO + BOLT M5x0.8	NANO	Ø2.3	M5x1	18.3	15.2	8.3	4.3	8	Ø9.8
NA-QC-03-00	QUICK COUPLING NANO W/ ROTARY SHORT BANJO + BOLT M6x1			M6x1	18.3	15.9	8.4	5.0	8	Ø9.8
NA-QC-03-03	QUICK COUPLING NANO W/ ROTARY SHORT BANJO + BOLT M8x1			M8x1	18.3	17.1	9.6	6.5	11	Ø9.8
NA-QC-03-02	QUICK COUPLING NANO W/ ROTARY SHORT BANJO + BOLT UNF5/16"-24			UNF5/16"-24	18.3	17.1	9.6	6.5	11	Ø9.8
MI-QC-03-00	QUICK COUPLING MICRO W/ ROTARY SHORT BANJO + BOLT M8x1	MICRO	Ø3.8	M8x1	24.3	21.0	11.3	6.5	11	Ø13.5
MI-QC-03-02	QUICK COUPLING MICRO W/ ROTARY SHORT BANJO + BOLT M10x1			M10x1	24.3	22.0	12.3	7.5	13	Ø13.5
MI-QC-03-01	QUICK COUPLING MICRO W/ ROTARY SHORT BANJO + BOLT BSPP1/8"			M10x1	24.3	22.0	12.3	7.5	13	Ø13.5

ADAPTORS, NUTS, COMPRESSION RINGS, SPACERS AND BALL ADAPTORS

ADAPTADORES, TUERCAS, ANILLOS DE CIERRE, SEPARADORES Y ADAPTADORES DE BOLA

NA/MI-CA-01 (Fig. 1)

Adaptors (Female to Male).

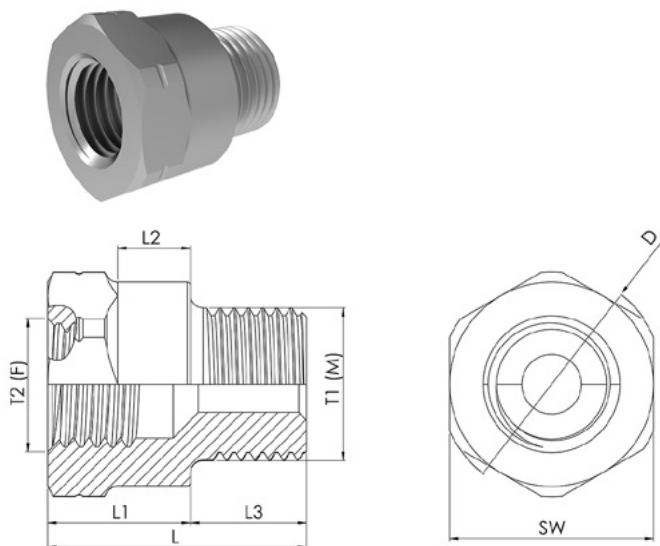
To adapt different elements of the system.

Material: Coated Steel.

Adaptadores (Hembra a Macho).

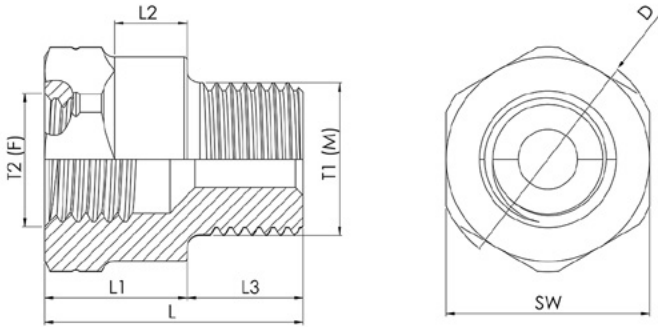
Permite adaptar diferentes elementos del sistema.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T2(F)	T1(M)	L	L1	L2	L3	SW	D
NA-CA-01-11	ADAPTOR M5x0.8(F) TO M8x1(M)	NANO	Ø4.1	M5x0.8	M8x1	12.0	5.5	1.8	6.5	11	Ø12.1
NA-CA-01-09	ADAPTOR M5x0.8(F) TO BSPT1/8"(M)		Ø4.2		BSPT1/8"-28	14.6	4.75	1.3	9.8	11	Ø12.1
NA-CA-01-05	ADAPTOR M6x1(F) TO M5x0.8(M)	NANO	Ø2.3	M6x1	M5x0.8	12.0	7.5	4.6	4.5	8	Ø8.8
NA-CA-01-02	ADAPTOR M6x1(F) TO M6x1(M)		Ø2.3		M6x1	12.5	7.5	4.6	5.0	8	Ø8.8
NA-CA-01-06	ADAPTOR M6x1(F) TO M8x1(M)		Ø3.8		M8x1	13.5	7.0	3.2	6.5	11	Ø12.1
NA-CA-01-08	ADAPTOR M6x1(F) TO M8x1 KEG(M)		Ø3.8		M8x1 KEG	12.0	6.0	3.2	6.0	8	Ø8.8
NA-CA-01-01	ADAPTOR M6x1(F) TO BSPT1/8"(M)		Ø3.8		M10x1 KEG	10.4	3.5	0.7	6.9	11	Ø12.1
NA-CA-01-00	ADAPTOR M5x0.8(F) TO BSPT1/8"(M)		Ø4.2		BSPT1/8"-28	14.6	4.7	1.35	9.8	11	Ø12.1
NA-CA-01-12	ADAPTOR M6x1(F) TO NPT1/16"(M)		Ø2.3		NPT1/16"-27	14.8	6.9	2.6	8.8	11	Ø12.1
NA-CA-01-10	ADAPTOR M6x1(F) TO NPT1/8"(M)		Ø5.0		NPT1/8"-27	13.4	4.8	1.4	8.5	11	Ø12.1
NA-CA-01-15	ADAPTOR M6x1(F) TO UNF5/16"-24(M)		Ø3.8		UNF5/16"-24	13.4	6.9	3.2	6.5	11	Ø12.1
NA-CA-01-13	ADAPTOR M6x1(F) TO UNF7/16"-20(M)		Ø5.0		UNF7/16"-20	12.0	4.9	0.4	7.1	13	Ø14.0

NA/MI-CA-01 (Fig. 1) cont.

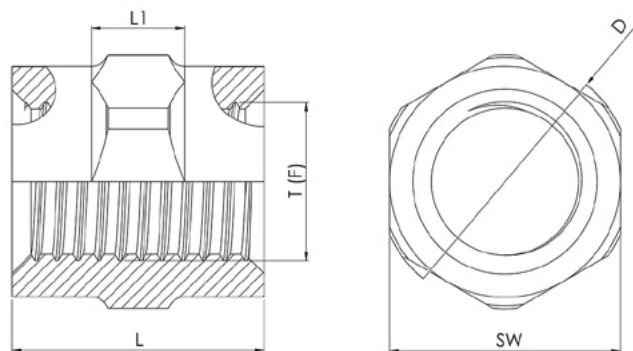


ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T2(F)	T1(M)	L	L1	L2	L3	SW		
MI-CA-01-05	ADAPTOR M8x1(F) TO M5x0.8(M)	MICRO	Ø2.3	M8x1	M5x0.8	14.0	9.5	5.6	4.5	11	Ø12.1	
MI-CA-01-06	ADAPTOR M8x1(F) TO M6x1(M)		Ø2.3		M6x1	14.5	9.5	5.6	5.0	11	Ø12.1	
MI-CA-01-02	ADAPTOR M8x1(F) TO M8x1(M)		Ø3.8		M8x1	16.0	9.5	6.0	6.5	11	Ø12.1	
MI-CA-01-08	ADAPTOR M8x1(F) TO M8x1 KEG(M)		Ø3.8		M8x1 KEG	16.4	9.5	6.0	6.9	11	Ø12.1	
MI-CA-01-18	ADAPTOR M8x1(F) TO M8x1.25(M)		Ø3.8		M8x1.25	16.0	9.5	6.0	6.5	11	Ø12.1	
MI-CA-01-01	ADAPTOR M8x1(F) TO M10x1(M)		Ø3.8		M10x1	16.5	9.0	5.0	7.5	11	Ø12.1	
MI-CA-01-23	ADAPTOR M8x1(F) TO M10x1.5(M)		Ø3.8		M10x1.5	16.6	9.1	4.6	7.5	13	Ø14.3	
MI-CA-01-14	ADAPTOR M8x1(F) TO M12x1(M)		Ø3.8		M12x1	TBA	TBA	TBA	TBA	TBA	TBA	
MI-CA-01-21	ADAPTOR M8x1(F) TO M13x1(M)		Ø6.0		M13x1	20.2	9.0	4.5	11.2	13	Ø14.3	
MI-CA-01-15	ADAPTOR M8x1(F) TO M14x1(M)		Ø3.8		M14x1	TBA	TBA	TBA	TBA	TBA	TBA	
MI-CA-01-00	ADAPTOR M8x1(F) TO BSPP1/8"(M)		Ø3.8		BSPP1/8"-28	16.5	9.1	4.6	7.4	13	Ø14.3	
MI-CA-01-00-B	ADAPTOR M8x1(F) TO BSPP1/8"(M).		Ø3.8		BSPP1/8"-28	16.5	9.1	4.6	7.4	11	Ø12.1	
MI-CA-01-12	ADAPTOR M8x1(F) TO BSPT1/8"(M)		Ø3.8		BSPT1/8"-28	20.3	9.1	5.5	11.2	11	Ø12.1	
MI-CA-01-12	ADAPTOR M8x1(F) TO BSPT1/4"(M)		Ø7.0		BSPT1/4"-19	18.5	5.2	1.2	13.3	13	Ø14.3	
MI-CA-01-17	ADAPTOR M8x1(F) TO NPT1/16"(M)		Ø3.8		NPT1/16"-27	17.7	8.9	4.4	8.8	13	Ø14.3	
MI-CA-01-16	ADAPTOR M8x1(F) TO NPT1/8"(M)		Ø3.8		NPT1/8"-27	17.0	7.0	2.5	10.0	13	Ø14.3	
MI-CA-01-20	ADAPTOR M8x1(F) TO UNF7/16"-20(M)		Ø3.8		UNF7/16"-20	17.0	7.0	2.5	7.5	13	Ø14.3	
MI-CA-01-09	ADAPTOR BSPP1/8"(F) TO M8x1(M)		Ø3.8		BSPP 1/8"-28	M8x1	17.0	10.5	5.0	6.5	13	Ø14.3
MI-CA-01-10	ADAPTOR BSPP1/8"(F) TO BSPP1/8"(M)		Ø6.0			BSPP1/8"-28	18.0	10.5	6.0	7.5	13	Ø14.3
MI-CA-01-13	ADAPTOR BSPP1/8"(F) TO BSPT1/8"(M)		Ø6.0			BSPT1/8"-28	21.4	11.0	7.6	10.4	13	Ø14.3
MI-CA-01-19	ADAPTOR BSPP 1/8"(F) TO NPT1/8"(M)	Ø6.0	NPT1/8"-27	20.2		11.0	6.5	9.2	13	Ø14.3		
MI-CA-01-22	ADAPTOR NPT1/8"(F) TO M8x1(M)	Ø3.8	NPT 1/8"-27	M8x1	17.5	10.0	5.5	7.5	13	Ø14.3		

NA/MI-CA-01 (Fig. 2)

Adaptors (Female to Female).
To adapt different elements of the system.
Material: Coated Steel.

Adaptadores (Hembra a Hembra).
Permite adaptar diferentes elementos del sistema.
Material: Acero recubierto.

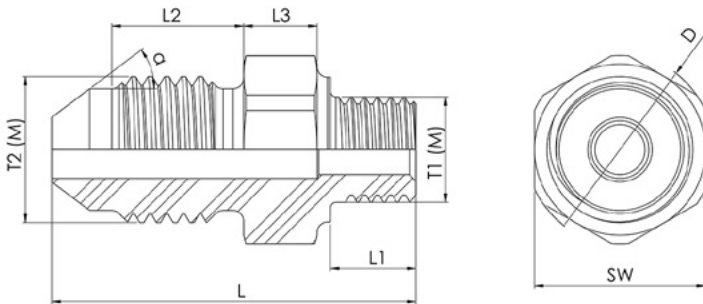
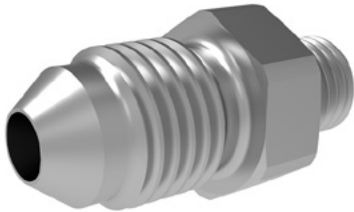


ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	L1	SW	D
NA-CA-01-03	ADAPTOR M6x1(F) TO M6x1(F)	NANO	Ø5.5	M6x1	9.0	2.5	8	Ø8.8
MI-CA-01-03	ADAPTOR M8x1(F) TO M8x1(F)	MICRO	Ø7.0	M8x1	12.0	4.5	11	Ø12.1

NA/MI-CA-01 (Fig. 3)

Adaptors (Male to Male).
To adapt different elements of the system.
Material: Coated Steel.

Adaptadores (Macho a Macho).
Permite adaptar diferentes elementos del sistema.
Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T1(M)	T2(M)	L	L1	L2	L3	SW	D
NA-CA-01-14	ADAPTOR JIC1/4" UNF7/16"-20(M) TO M6x1(M)	NANO	Ø2.3	M6x1	JIC1/4" UNF7/16"-20	26.2	5.0	10.0	5.6	13	Ø14.3
MI-CA-01-24	ADAPTOR JIC 1/4" UNF 7/16-20(M) TO M8x1(F)	MICRO	Ø3.8	M8x1	JIC1/4" UNF7/16"-20	27.7	6.5	10.0	5.6	13	Ø14.3
MI-CA-01-25	ADAPTOR JIC1/4" UNF7/16-20(M) TO BSPP1/8"(F)		Ø4.4	BSPP1/8"-28	JIC1/4" UNF7/16"-20	28.2	7.4	10.0	6.5	13	Ø14.3

NA/MI-CA-01 (Fig. 4)

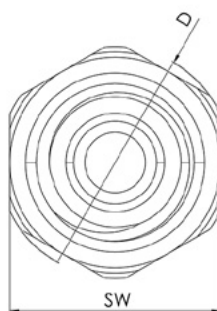
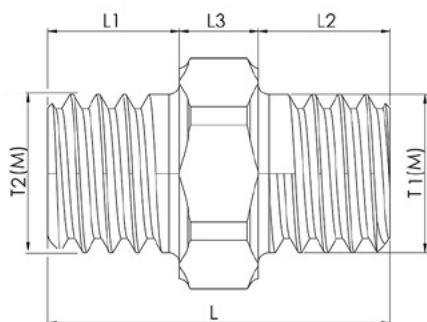
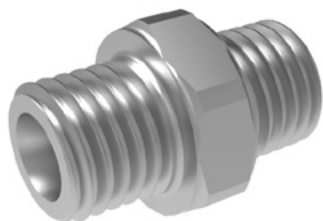
Adaptors (Male to Male).

To adapt different elements of the system and compression ring for rigid tubes (must be used with NA/MI-CA-01 (Fig. 5) and NA/MI-CA-02).
Material: Coated Steel.

Adaptadores (Macho a Macho).

Permite adaptar diferentes elementos del sistema y anillos de cierre para tubo rígido (debe ser usado con NA/MI-CA-01 (Fig. 5) y NA/MI-CA-02).

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T1(M)	T2(M)	L	L1	L2	L3	SW	D
NA-CA-01-07	ADAPTOR M6x1(M) TO M6x1(M). ALSO USED FOR COMPRESSION RING ID:3 mm SW8	NANO	Ø2.3	M6x1	M6x1	13.0	2.5	5.2	2.6	8	Ø8.8
MI-CA-01-07	ADAPTOR M8x1(M) TO M8x1(M). ALSO USED FOR COMPRESSION RING ID:4 mm SW11	MICRO	Ø3.8	M8x1	M8x1	17.1	6.5	6.5	4.1	11	Ø12.1

NA/MI-CA-01 (Fig. 5)

Nut for compression ring.

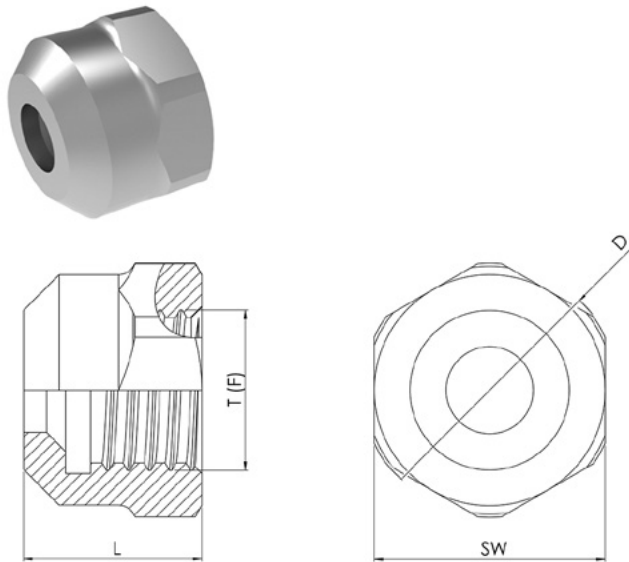
For compression ring for clamping rigid tubes. Must be used with NA/MI-CA-01 (Fig. 4) and NA/MI-CA-02.

Material: Coated Steel.

Tuerca para anillo de cierre. Debe usarse con NA/MI-CA-01 (Fig. 4) y NA/MI-CA-02.

Para anillos de cierre para sujeción de tubo rígido.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	SW	D
NA-CA-01-04	NUT M6x1(F) FOR COMPRESSION RING ID:3 mm	NANO	Ø3.0	M6x1	6.5	8	Ø8.8
MI-CA-01-04	NUT M8x1(F) FOR COMPRESSION RING ID:4 mm	MICRO	Ø4.15	M8x1	8.5	11	Ø12.1

NA/MI-CA-02

Compression ring.

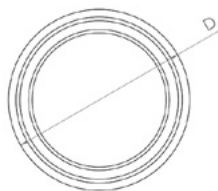
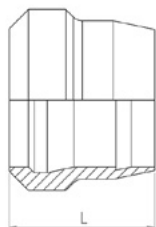
For clamping rigid tube. Must be used with NA/MI-CA-01 (Fig. 4) and NA/MI-CA-01 (Fig. 5).

Material: Coated Steel.

Anillo de cierre.

Para la sujeción de tubo rígido. Debe usarse con NA/MI-CA-01 (Fig. 4) y NA/MI-CA-01 (Fig. 5).

Material: Acero recubierto.

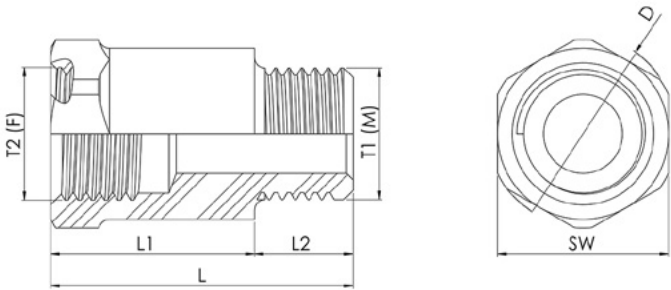


ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	L	D
NA-CA-02-00	COMPRESSION RING ID:3 mm	NANO	Ø3.1	3.3	Ø4.2
MI-CA-02-00	COMPRESSION RING ID:4 mm	MICRO	Ø4.1	4.5	Ø5.6

NA/MI-CA-03

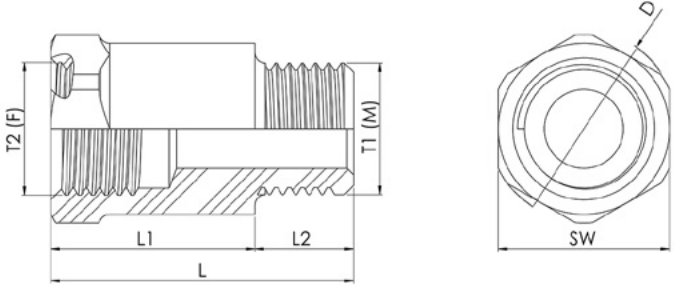
Spacers (Female to Male).
To avoid interference when connecting different elements.
Material: Coated Steel.

Separadores (Hembra a Macho).
Para evitar interferencias al conectar diferentes elementos.
Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T2(F)	T1(M)	L	L1	L2	SW	D
NA-CA-03-03	SPACER H:7 mm M5x0.8(M)-M5x0.8(F)	NANO	Ø2.3	M5x0.8	M5x0.8	11.0	6.5	4.5	8	Ø8.8
NA-CA-03-04	SPACER H:12 mm M5x0.8(M)-M5x0.8(F)					16.0	11.5			
NA-CA-03-05	SPACER H:17 mm M5x0.8(M)-M5x0.8(F)					21.0	16.5			
NA-CA-03-00	SPACER H:8 mm M6x1(M)-M6x1(F)		Ø2.3	M6x1	M6x1	12.5	7.5	5.0	8	Ø8.8
NA-CA-03-01	SPACER H:13 mm M6x1(M)-M6x1(F)					17.5	12.5			
NA-CA-03-02	SPACER H:18 mm M6x1(M)-M6x1(F)					22.5	17.5			

NA/MI-CA-03 cont.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T2(F)	T1(M)	L	L1	L2	SW	D
MI-CA-03-00	SPACER H:10 mm M8x1(M)-M8x1(F)	MICRO	Ø3.8	M8x1	M8x1	16.0	9.5	6.5	11	Ø12.1
MI-CA-03-01	SPACER H:15 mm M8x1(M)-M8x1(F)					21.0	14.5			
MI-CA-03-02	SPACER H:20 mm M8x1(M)-M8x1(F)					26.0	19.5			
MI-CA-03-18	SPACER H:11 mm M8x1(M)-NPT1/8"(F)		Ø3.8	NPT1/8"-27	M8x1	17.5	11.0	6.5	13	Ø14.3
MI-CA-03-19	SPACER H:16 mm M8x1(M)-NPT1/8"(F)					22.5	16.0			
MI-CA-03-20	SPACER H:21 mm M8x1(M)-NPT1/8"(F)					27.5	21.0			
MI-CA-03-06	SPACER H:10 mm M10x1(M)-M10x1(F)		Ø6.0	M10x1	M10x1	18.0	10.5	7.5	13	Ø14.3
MI-CA-03-07	SPACER H:15 mm M10x1(M)-M10x1(F)					23.0	15.5			
MI-CA-03-08	SPACER H:20 mm M10x1(M)-M10x1(F)					28.0	20.5			
MI-CA-03-08	SPACER H:10 mm M8x1(M)-BSPP1/8"(F)		Ø6.0	BSPP1/8"-28	M8x1	17.0	10.5	6.5	13	Ø14.3
MI-CA-03-10	SPACER H:15 mm M8x1(M)-BSPP1/8"(F)					22.0	15.5			
MI-CA-03-11	SPACER H:20 mm M8x1(M)-BSPP1/8"(F)					27.0	20.5			
MI-CA-03-03	SPACER H:10 mm BSPP1/8"(M)-BSPP1/8"(F)		Ø6.0	BSPP1/8"-28	BSPT1/8"-28	18.0	10.5	7.5	13	Ø14.3
MI-CA-03-04	SPACER H:15 mm BSPP1/8"(M)-BSPP1/8"(F)					23.0	15.5			
MI-CA-03-05	SPACER H:20 mm BSPP1/8"(M)-BSPP1/8"(F)					28.0	20.5			
MI-CA-03-12	SPACER H:10 mm BSPT1/8"(M)-BSPP1/8"(F)		Ø6.0	BSPP1/8"-28	BSPT1/8"-28	21.4	11.0	10.4	13	Ø14.3
MI-CA-03-13	SPACER H:15 mm BSPT1/8"(M)-BSPP1/8"(F)					26.4	16.0			
MI-CA-03-14	SPACER H:20 mm BSPT1/8"(M)-BSPP1/8"(F)					31.4	21.0			
MI-CA-03-15	SPACER H:11 mm NPT1/8"(M)-BSPP1/8"(F)		Ø6.0	BSPP1/8"-28	NPT1/8" 27	20.2	11.0	9.2	13	Ø14.3
MI-CA-03-16	SPACER H:16 mm NPT1/8"(M)-BSPP1/8"(F)					25.5	16.0			
MI-CA-03-17	SPACER H:21 mm NPT1/8"(M)-BSPP1/8"(F)	30.2				21.0				
MI-CA-03-18	SPACER H:11 mm M8x1(M)- NPT1/8"(F)	Ø3.8	NPT1/8"-28	M8X1	17.5	11.0	6.5	13	Ø14.3	
MI-CA-03-19	SPACER H:11 mm M8x1(M)- NPT1/8"(F)				22.5	16.0				
MI-CA-03-20	SPACER H:21 mm M8x1(M)- NPT1/8"(F)				27.5	21.0				

MI-CA-05

Ball adaptors (Female).

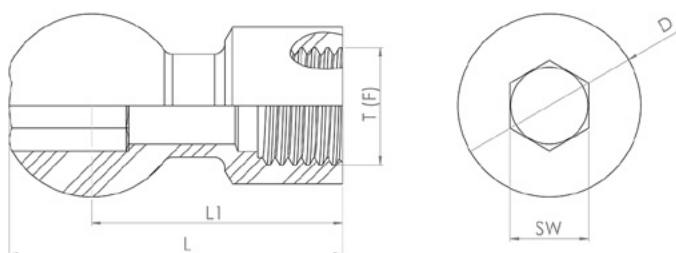
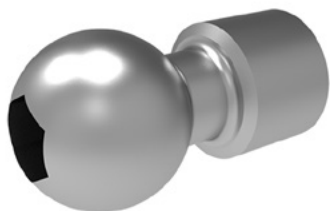
To adapt coolant distribution tubes to spherical cavities of turret or tool holder.

Material: Coated Steel.

Adaptadores de bola (Hembra).

Permite adaptar los tubos de distribución de refrigerante a las cavidades esféricas de torreta o porta-herramientas.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	L1	D	SW
MI-CA-05-00	ADAPTOR BALL OD:10mm TO M8x1(F).	MICRO	Ø4.2	M8x1	20.9	16.4	Ø10.0	4
MI-CA-05-01	ADAPTOR BALL OD:12mm TO M8x1(F).		Ø5.0		23.05	17.6	Ø12.0	5
MI-CA-05-02	ADAPTOR BALL OD:14mm TO M8x1(F).		Ø5.9		25.52	19.2	Ø14.0	6
MI-CA-05-03	ADAPTOR BALL OD:15mm TO M8x1(F).		Ø6.4		26.68	19.9	Ø15.0	6
MI-CA-05-04	ADAPTOR BALL OD:16mm TO M8x1(F).		Ø6.4		17.5	20.5	Ø16.0	6
MI-CA-05-05	ADAPTOR BALL OD:22mm TO M8x1(F).		Ø6.4		34.0	24.0	Ø22.0	6

BANJOS AND BANJO BOLTS

BANJOS Y TORNILLOS DE BANJO

NA/MI-CA-04 (Fig. 1)

90° Short banjo (Female).

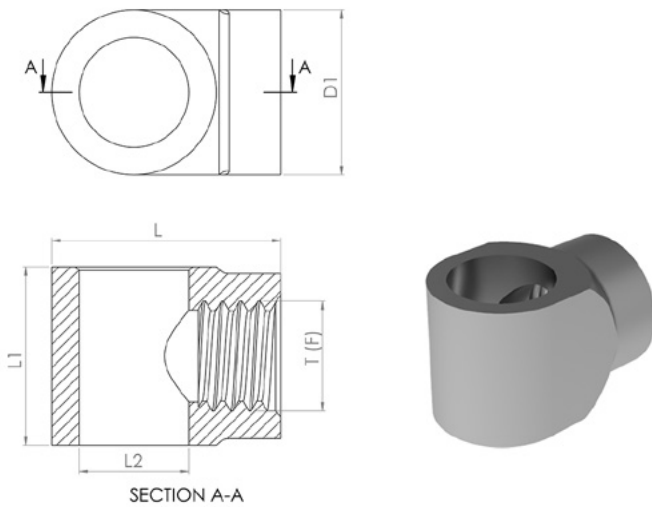
For 90° angle position adjustable connections. Requires banjo bolt.

Material: Coated Steel.

Banjo corto 90° (Hembra).

Para conexiones ajustables en posición con ángulo a 90°. Requiere tornillo de banjo.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	L1	D	D1
NA-CA-04-00	SHORT BANJO M6x1(F) FOR M5 OR M6 BOLT	NANO	Ø2.3	M6X1	12.5	10	Ø6.0	Ø9.0
MI-CA-04-00	SHORT BANJO M8x1(F) FOR M8 BOLT	MICRO	Ø3.8	M8X1	16.5	13	Ø8.0	Ø11.0
MI-CA-04-06	SHORT BANJO M8x1(F) FOR BSPP1/8" OR M10 BOLT			M8X1	18.5	13	Ø10.0	Ø13.0
MI-CA-04-11	SHORT BANJO M10x1(F) FOR BSPP1/8" OR M10 BOLT			M10X1	19.5	13	Ø10.0	Ø13.0
MI-CA-04-13	SHORT BANJO BSPP1/8"(F) FOR BSPP1/8" OR M10 BOLT			BSPP1/8"	19.5	13	Ø10.0	Ø13.0

NA/MI-CA-04 (Fig. 2)

90° Short banjo (Male).

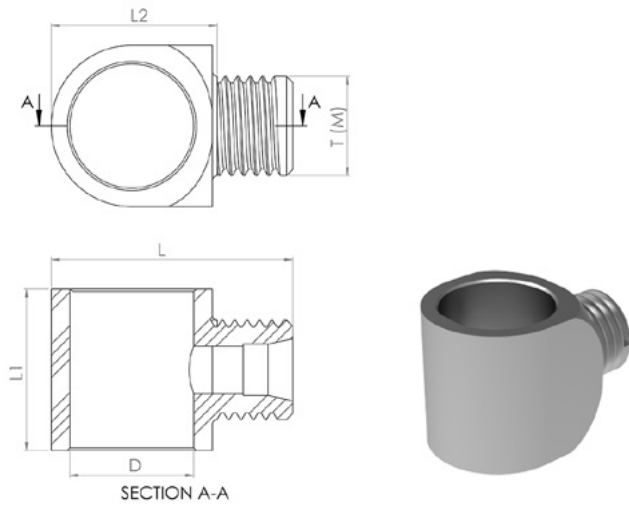
For 90° angle position adjustable connections. Requires banjo bolt.

Material: Coated Steel.

Banjo corto 90° (Macho).

Para conexiones ajustables en posición con ángulo a 90°. Requiere tornillo de banjo.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	L1	L2	D
NA-CA-04-01	SHORT BANJO M6x1(M) FOR M5 OR M6 BOLT	NANO	Ø2.3	M6x1	14.0	10.0	9.0	Ø6.0
MI-CA-04-01	SHORT BANJO M8x1(M) FOR M8 BOLT	MICRO	Ø3.8	M8x1	17.5	13.0	11.5	Ø8.0
MI-CA-04-07	SHORT BANJO M8x1(M) FOR B5PP1/8" OR M10 BOLT		Ø3.8	M8x1	19.5	13.0	11.5	Ø10.0

NA/MI-CA-04 (Fig. 3)

90° Long banjo (Female).

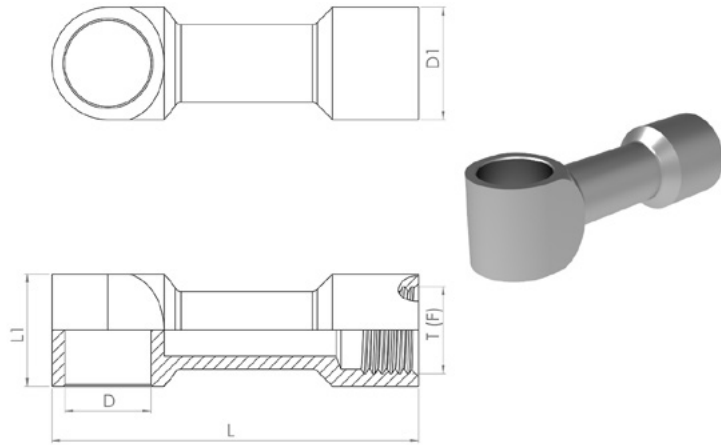
For 90° angle position adjustable connections with extra length. Requires banjo bolt.

Material: Coated Steel.

Banjo largo 90° (Hembra).

Para conexiones ajustables en posición con ángulo a 90° con longitud extra. Requiere tornillo de banjo.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	L1	D	D1
NA-CA-04-02	LONG STRAIGHT BANJO M6x1(F) FOR M5 OR M6 BOLT	NANO	Ø2.3	M6x1	31.5	10.0	Ø6.0	Ø9
MI-CA-04-02	LONG STRAIGHT BANJO M8x1(F) FOR M8 BOLT	MICRO	Ø3.8	M8x1	42.5	13.0	Ø8.0	Ø11.0
MI-CA-04-09	LONG STRAIGHT BANJO M8x1(F) FOR BSPP1/8" OR M10 BOLT				42.5	13.0	Ø10.0	Ø11.0
MI-CA-04-12	LONG STRAIGHT BANJO M10x1(F) FOR BSPP1/8" OR M10 BOLT			M10x1	42.5	13.0	Ø10.0	Ø13.0
MI-CA-04-14	LONG STRAIGHT BANJO BSPP1/8"(F) FOR BSPP1/8" OR M10 BOLT			BSPP1/8"	42.5	13.0	Ø10.0	Ø13.0

NA/MI-CA-04 (Fig. 4)

45° Long banjo (Female).

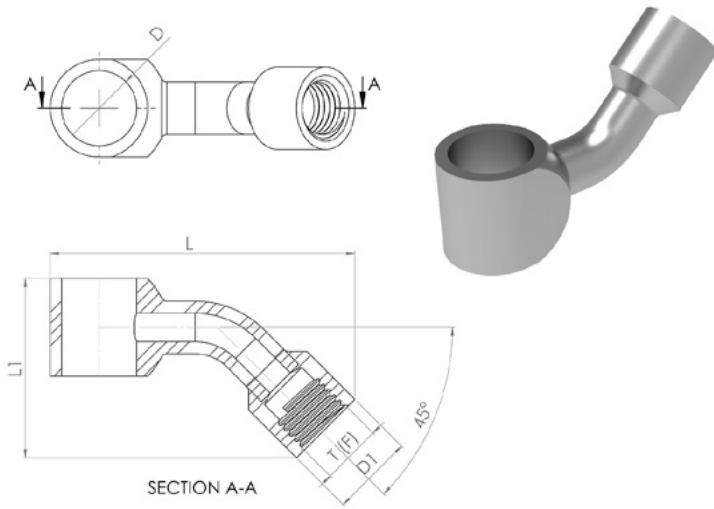
For 45° angle position adjustable connections with extra length. Requires banjo bolt.

Material: Coated Steel.

Banjo largo 45° (Hembra).

Para conexiones ajustables en posición con ángulo a 45° con longitud extra. Requiere tornillo de banjo.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	L1	L2	D
NA-CA-04-03	LONG CURVED BANJO M6x1(F) FOR M5 OR M6 BOLT	NANO	Ø2.3	M6x1	33.0	10.0	Ø6.0	Ø9.0
MI-CA-04-03	LONG CURVED BANJO M8x1(F) FOR M8 BOLT	MICRO	Ø3.8	M8x1	40.0	11.8	Ø8.0	Ø11.0
MI-CA-04-10	LONG CURVED BANJO M8x1(F) FOR BSPP1/8" OR M10 BOLT				40.5	13.0	Ø10.0	Ø11.0

NA/MI-CA-04 (Fig. 5)

Banjo bolt (Male).

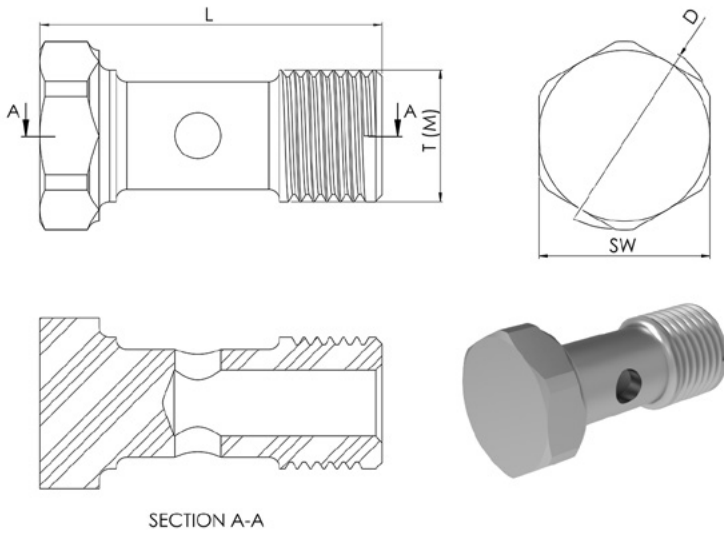
For assembly in banjo fitting.

Material: Coated Steel.

Tornillo de banjo (Macho).

Para montar en conexión tipo banjo.

Material: Acero recubierto.

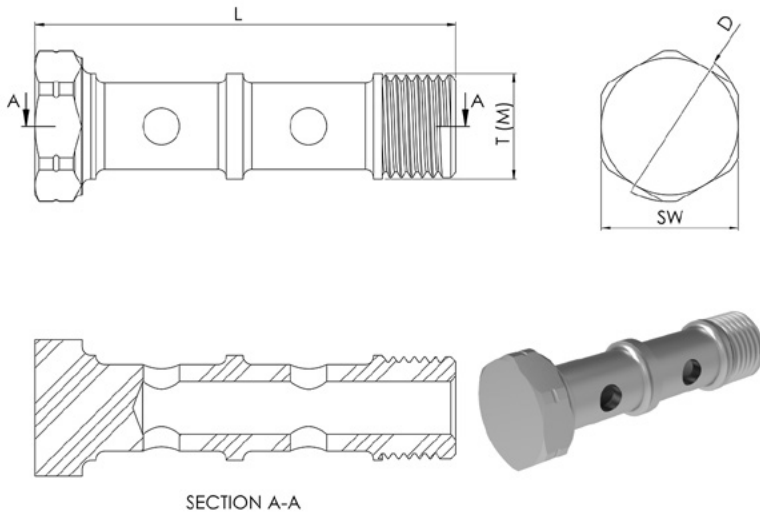


ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	SW	D
NA-CA-04-06	BANJO BOLT M5x0.8(M)	NANO	Ø2.3	M5x0.8	18.3	8	Ø8.8
NA-CA-04-04	BANJO BOLT M6x1(M)			M6x1	18.3	8	Ø8.8
MI-CA-04-04	BANJO BOLT M8x1(M)	MICRO	Ø3.8	M8x1	24.3	11	Ø12.1
MI-CA-04-15	BANJO BOLT M10x1(M)			M10x1	26.0	13	Ø14.3
MI-CA-04-17	BANJO BOLT BSPP1/8"(M)			BSPP1/8"	26.0	13	Ø14.3

NA/MI-CA-04 (Fig. 6)

Double length banjo bolt (Male).
For assembly of 2 banjo fittings.
Material: Coated Steel.

Tornillo de banjo de doble longitud (Macho).
Para montar una conexión con 2 banjos.
Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(M)	L	SW	D
NA-CA-04-05	DOUBLE BANJO BOLT M6x1(M) TO CONNECT 2 BANJOS	NANO	Ø2.3	M6x1	29.8	8	Ø8.8
MI-CA-04-05	DOUBLE BANJO BOLT M8x1(M) TO CONNECT 2 BANJOS	MICRO	Ø3.8	M8x1	38.3	11	Ø12.1
MI-CA-04-16	DOUBLE BANJO BOLT M10x1(M) TO CONNECT 2 BANJOS			M10x1	40.0	13	Ø14.3
MI-CA-04-18	DOUBLE BANJO BOLT BSPP1/8"(M) TO CONNECT 2 BANJOS			BSPP1/8"	40.0	13	Ø14.3

NA-CA-04 (Fig. 7)



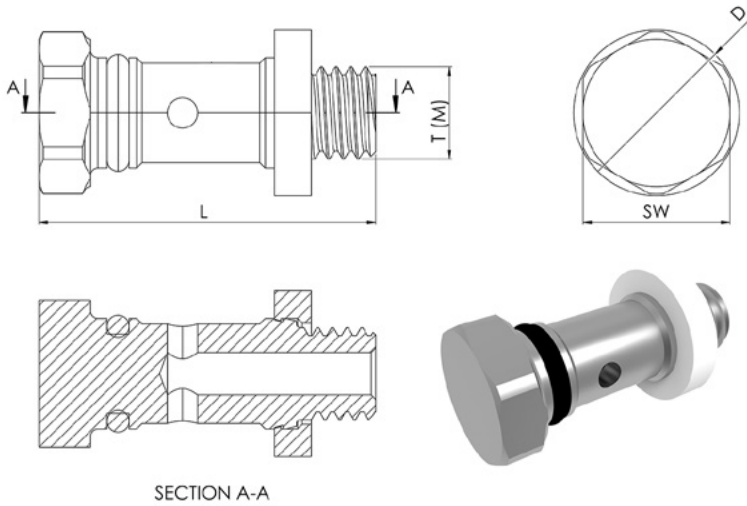
Banjo bolt for pre-assembled banjo (Male).

For pre-assembled banjo bolt + banjo for easier installation. Needs to be ordered with the selected banjo.
Material Coated Steel + elastomeric seal.

Tornillo de banjo para banjo pre-montado (Macho).

Para montar en conexión tipo banjo. Debe pedirse conjuntamente con el banjo seleccionado.

Material: Acero recubierto + junta elastomérica.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	SW	D
NA-CA-04-08	ROTATING BANJO BOLT M5x0.8(M)	NANO	Ø2.3	M5x0.8	18.3	8	Ø8.8
NA-CA-04-07	ROTATING BANJO BOLT M6x1(M)			M6x1	18.3	8	Ø8.8

FLOW ADJUSTMENT VALVES

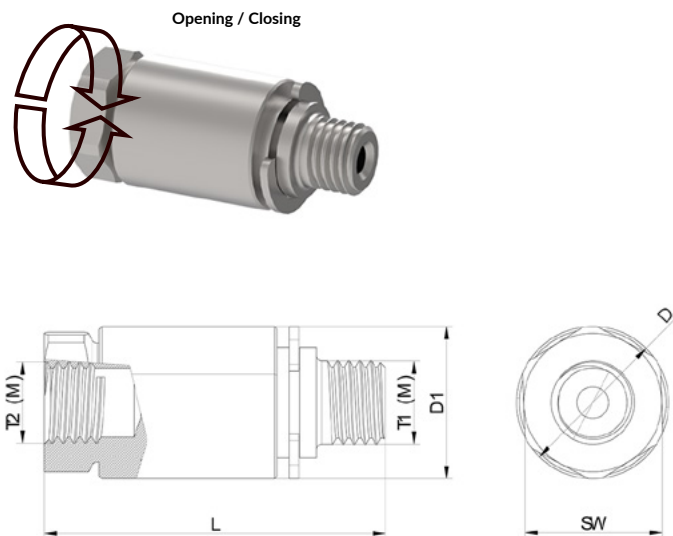
VÁLVULAS DE AJUSTE DE CAUDAL

NA/MI-FA-01



Flow adjustment valve straight.
For adjusting the coolant flow in a straight assembly (in-line).
Material: Coated Steel.

Válvula de ajuste de caudal recta.
Para ajustar el caudal del refrigerante en un montaje recto (en línea).
Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T2(M)	T1(M)	L	D1	SW	D
NA-FA-01-00	FLOW ADJUSTMENT VALVE STRAIGHT M6x1(F) TO M6x1(F)	NANO	Ø2.3	M6x1	M6x1	20.0	Ø11.0	10	Ø11.0
MI-FA-01-00	FLOW ADJUSTMENT VALVE STRAIGHT M8x1(F) TO M8x1(F)	MICRO	Ø3.8	M8x1	M8x1	24.0	Ø14.0	13	Ø14.3

NA/MI-FA-02

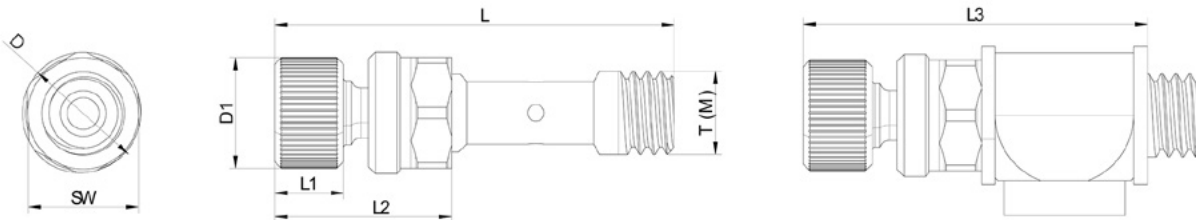


Flow adjustment valve for banjo.
 For adjusting the coolant flow in a banjo assembly (90°). Substitutes the banjo bolt.
 Material: Coated Steel.

Válvula de ajuste de caudal para banjo.
 Para ajustar el caudal del refrigerante en un montaje en banjo (90°). Sustituye al tornillo de banjo.
 Material: Acero recubierto.

NA/MI-FA-02

Example of assembly:
 Flow adjustment valve with a banjo



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(M)	L	L1	L2	L3	D1	SW	D
NA-FA-02-00	FLOW ADJUSTMENT VALVE M6x1(M) FOR BANJO	NANO	Ø2.3	M6x1	34/29	5.0	13/8	30/25	Ø8.0	8	Ø8.8
MI-FA-02-00	FLOW ADJUSTMENT VALVE M8x1(M) FOR BANJO	MICRO	Ø3.8	M8x1	37.5/31.5	6.0	17/11	32/26	Ø11.0	11	Ø12.1

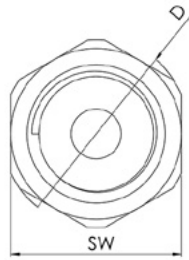
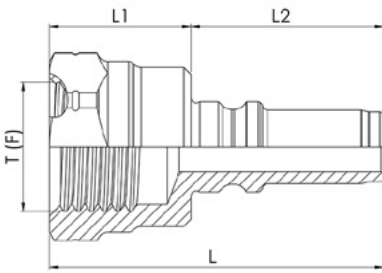
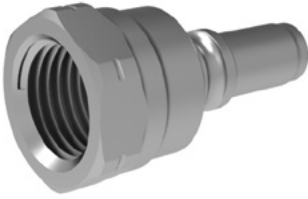
QUICK CONNECTION FITTINGS AND PLUGS

CLAVIJAS DE ENCHUFE RÁPIDO Y TAPONES

NA/MI-CC-01 (Fig. 1)

Quick connection fitting (Female).
To connect with quick coupling fittings.
Material: Coated Steel.

Clavijas de enchufe rápido (Hembra).
Para conectar con enchufes rápidos.
Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	L	L1	D	D1
NA-CC-01-01	QUICK CONNECTION FITTING NANO TO M6x1(F)	NANO	Ø2.3	M6x1	18.3	7.3	11.0	8	Ø8.8
MI-CC-01-01	QUICK CONNECTION FITTING MICRO TO M8x1(F)	MICRO	Ø3.8	M8x1	24.1	9.4	14.7	11	Ø12.1
MI-CC-01-05	QUICK CONNECTION FITTING MICRO TO BSPP1/8"(F)			BSPP1/8"	25.5	10.8	14.7	13	Ø14.3

NA/MI-CC-01 (Fig. 2)

Non-rotating quick connection fitting (Female).

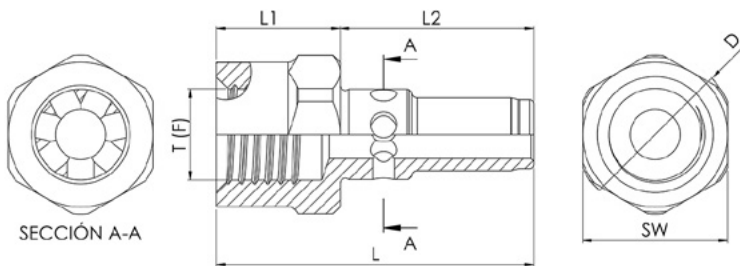
To connect rigid distribution tubes with quick coupling fittings always in the same position.

Material: Coated Steel.

Clavijas de enchufe rápido antigiro (Hembra).

Para conectar tubos de distribución rígidos con enchufes rápidos siempre en la misma posición.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(F)	L	L1	L2	SW	D
NA-CC-01-02	QUICK CONN. FITTING NANO NON-ROTATING TO M6x1(F)	NANO	Ø2.3	M6x1	18.6	7.3	11.3	8	Ø8.8
MI-CC-01-02	QUICK CONN. FITTING MICRO NON-ROTATING TO M8x1(F)	MICRO	Ø3.8	M8x1	24.1	9.4	14.7	11	Ø12.1

NA/MI-CC-01 (Fig. 3)

Non-rotating quick connection fitting (Male).

To connect rigid distribution tubes with quick coupling fittings always in the same position. Allows direct coupling with nut and compression ring for rigid tubes to save space.

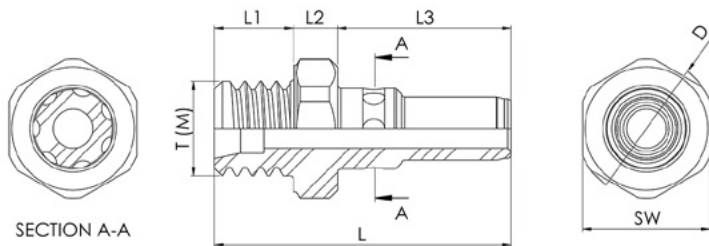
Material: Coated Steel.

Clavijas de enchufe rápido antigiro (Macho).

Para conectar tubos de distribución rígidos con enchufes rápidos siempre en la misma posición.

Permite el acoplamiento directo con la tuerca y anillo de compresión para tubo rígido y ahorrar espacio.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	THROUGH HOLE	T(M)	L	L1	L2	L3	SW	D
NA-CC-01-03	QUICK CONN. FITTING NANO NON-ROTATING TO M6x1(M)	NANO	Ø2.3	M6x1	18.8	5.0	2.8	11.0	8	Ø8.8
MI-CC-01-03	QUICK CONN. FITTING MICRO NON-ROTATING TO M8x1(M)	MICRO	Ø3.8	M8x1	25.0	6.5	3.8	14.7	11	Ø12.1

NA/MI-CC-01 (Fig. 4)

Sealing plug for quick coupling.

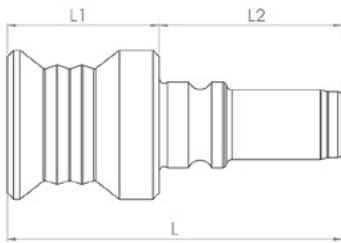
To seal a quick coupling fitting installed in the machine and not being used.

Material: Coated Steel.

Clavija de sellado enchufe rápido.

Para sellar un enchufe rápido instalado en máquina y que no está siendo utilizado.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	L	L1	L2	D
NA-CC-01-00	QUICK CONNECTION FITTING NANO TO SEALING PLUG	NANO	20.0	12.2	7.8	Ø8.8
MI-CC-01-00	QUICK CONNECTION FITTING MICRO TO SEALING PLUG	MICRO	26.9	12.2	14.7	Ø12.0

NA/MI-CC-01 (Fig. 5)

Sealing plug (M).

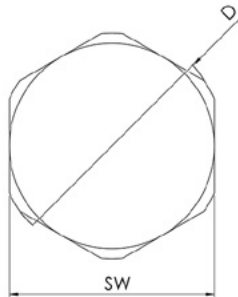
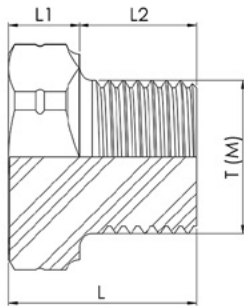
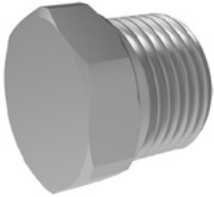
To seal a distribution block or other element installed in the machine and not being used.

Material: Coated Steel.

Tapón de sellado (M).

Para sellar un bloque de distribución u otro elemento instalado en máquina y que no está siendo utilizado.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	T(M)	L	L1	L2	SW	D
NA-CC-01-05	SEALING PLUG M5x0.8(M)	NANO	M5x0.8	7.3	2.8	4.5	8	Ø8.8
NA-CC-01-04	SEALING PLUG M6x1(M)		M6x1	7.8	2.8	5.0	8	Ø8.8
MI-CC-01-04	SEALING PLUG M8x1(M)	MICRO	M8x1	10.3	4.5	5.8	11	Ø12.1
MI-CC-01-06	SEALING PLUG BSPP1/8"(M)		BSPP1/8"	10.3	4.5	5.8	11	Ø12.1
MI-CC-01-07	SEALING PLUG BSPT1/8"(M)		BSPT1/8"	14.6	3.4	11.2	11	Ø12.1

MI-CC-01 (Fig. 6)



Screw plug (M).

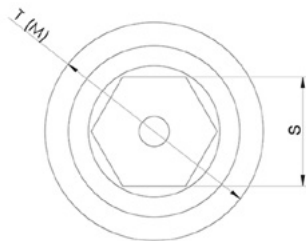
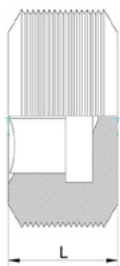
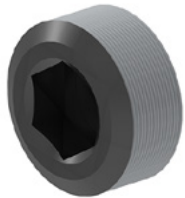
To seal a distribution block or other element installed in the machine and not being used.

Material: Blued Steel

Tornillo de sellado (M).

Para sellar un bloque de distribución u otro elemento instalado en máquina y que no está siendo utilizado.

Material: Acero pavonado.



ITEM	DESCRIPTION	FAMILY	T(M)	L	S
MI-CC-01-08	SEALING PLUG M8x1(M)	MICRO	M8x1	4	4

COPPER DISTRIBUTION TUBES

TUBOS DE DISTRIBUCIÓN DE COBRE

NA/MI-DT-02

Copper distribution tubes (Male).

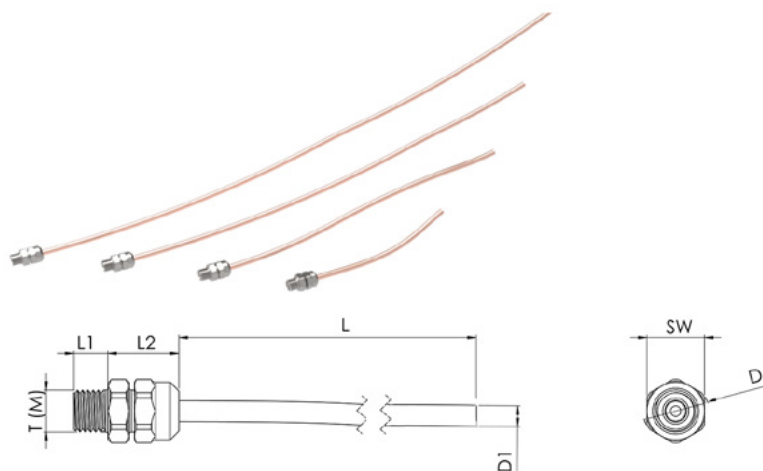
To route the coolant in an easy way from a coolant distribution block to the cutting point of the tool.

Material: Copper (Tube) + Coated Steel (Fittings).

Tubos de distribución de cobre (Macho).

Para dirigir el refrigerante de forma sencilla desde un bloque de distribución de refrigeración hasta el punto de corte de la herramienta.

Material: Cobre (Tubo) + Acero recubierto (Racores).



ITEM	DESCRIPTION	FAMILY	TUBE ID	T(M)	L	L1	L2	SW	D	D1
NA-DT-02-L102-M6	COPPER TUBE OD:3 mm ID:2 mm L=102 mm M6x1(M)	NANO	Ø2.0	M6x1	102	5.2	10.0	8	Ø8.8	Ø3.0
NA-DT-02-L203-M6	COPPER TUBE OD:3 mm ID:2 mm L=203 mm M6x1(M)				203					
NA-DT-02-L305-M6	COPPER TUBE OD:3 mm ID:2mm L=305 mm M6x1(M)				305					
NA-DT-02-L406-M6	COPPER TUBE OD:3 mm ID:2 mm L=406 mm M6x1(M)				406					
MI-DT-02-L102-M8	COPPER TUBE OD:4 mm ID:2 mm L=102 mm M8x1(M)	MICRO	Ø2.0	M8x1	102	6.5	13.6	11	Ø12.1	Ø4.0
MI-DT-02-L203-M8	COPPER TUBE OD:4 mm ID:2 mm L=203 mm M8x1(M)				203					
MI-DT-02-L305-M8	COPPER TUBE OD:4 mm ID:2 mm L=305 mm M8x1(M)				305					
MI-DT-02-L406-M8	COPPER TUBE OD:4 mm ID:2 mm L=406 mm M8x1(M)				406					

FLEXIBLE DISTRIBUTION TUBES

TUBOS DE DISTRIBUCIÓN FLEXIBLES

NA/MI-DT-01

Flexible distribution tubes (Male - Male).

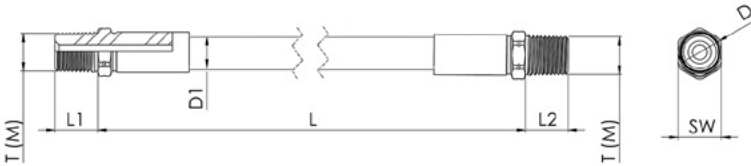
To easily connect 2 elements of the system such as coolant distribution block and tool holder. It requires to be connected to at least 1 quick coupling fitting (through a quick connector plug).

Material: Coated Steel (Fitting) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core).

Tubos de distribución flexibles (Macho - Macho).

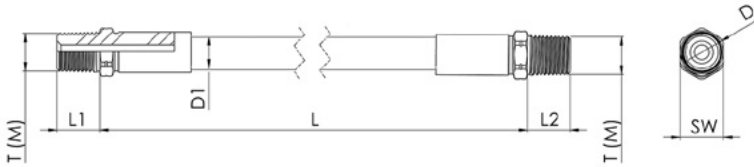
Para conectar fácilmente 2 elementos del sistema tales como un bloque de distribución y un porta-herramientas. Requiere que se conecte al menos con 1 enchufe rápido (a través de una clavija de enchufe rápido).

Material: Acero recubierto (Racor) + Acero inox. AISI-304 (Malla externa) + Teflón (Núcleo interno).



ITEM	DESCRIPTION	FAMILY	TUBE ID	BENDING RADIUS	T(M)	L	L1/L2	SW	D	D1
NA-DT-01-L102-M6	FLEX TUBE OD:6.5 mm L=102 mm M6x1(M) x2	NANO	Ø2.3	15	M6x1	102	5.0	8	Ø8.8	Ø6.5
NA-DT-01-152-M6	FLEX TUBE OD:6.5 mm L=152 mm M6x1(M) x2					152				
NA-DT-01-L203-M6	FLEX TUBE OD:6.5 mm L=203 mm M6x1(M) x2					203				
NA-DT-01-L305-M6	FLEX TUBE OD:6.5 mm L=305 mm M6x1(M) x2					305				
NA-DT-01-L406-M6	FLEX TUBE OD:6.5 mm L=406 mm M6x1(M) x2					406				
NA-DT-01-L406-M6	FLEX TUBE OD:6.5 mm L=102 mm M8x1 KEG(M) x2	NANO	Ø2.3	15	M8x1 KEG	102	5.25	8	Ø8.8	Ø6.5
NA-DT-01-152-M8K	FLEX TUBE OD:6.5 mm L=152 mm M8x1 KEG(M) x2					152				
NA-DT-01-L203-M8K	FLEX TUBE OD:6.5 mm L=203 mm M8x1 KEG(M) x2					203				
NA-DT-01-L305-M8K	FLEX TUBE OD:6.5 mm L=305 mm M8x1 KEG(M) x2					305				
NA-DT-01-L406-M8K	FLEX TUBE OD:6.5 mm L=406 mm M8x1 KEG(M) x2					406				

NA/MI-DT-01 cont.



ITEM	DESCRIPTION	FAMILY	TUBE ID	BENDING RADIUS	T(M)	L	L1/L2	SW	D	D1
MI-DT-01-L102-M8	FLEX TUBE OD:8 mm L=102 mm M8x1(M) x2	MICRO	Ø3.8	30	M8x1	102	6.5	11	Ø12.1	Ø8.0
MI-DT-01-152-M8	FLEX TUBE OD:8 mm L=152 mm M8x1(M) x2					152				
MI-DT-01-L203-M8	FLEX TUBE OD:8 mm L=203 mm M8x1(M) x2					203				
MI-DT-01-L305-M8	FLEX TUBE OD:8 mm L=305 mm M8x1(M) x2					305				
MI-DT-01-L406-M8	FLEX TUBE OD:8 mm L=406 mm M8x1(M) x2					406				
MI-DT-01-L102-BT1/8	FLEX TUBE OD:8 mm L=102 mm BSPT1/8"(M) x2	MICRO	Ø3.8	30	BSPT1/8"	102	10.8	11	Ø12.1	Ø8.0
MI-DT-01-152-BT1/8	FLEX TUBE OD:8 mm L=152 mm BSPT1/8"(M) x2					152				
MI-DT-01-L203-BT1/8	FLEX TUBE OD:8 mm L=203 mm BSPT1/8"(M) x2					203				
MI-DT-01-L305-BT1/8	FLEX TUBE OD:8 mm L=305 mm BSPT1/8"(M) x2					305				
MI-DT-01-L406-BT1/8	FLEX TUBE OD:8 mm L=406 mm BSPT1/8"(M) x2					406				

SPECIAL TUBES: TUBOS ESPECIALES:



Special length tubes to be designated as: NANO or MICRO-DT-01-Length L-Thread type T(M)
(1) (2) (3) (4)

Tubos de longitud especial que se designarán como: NANO o MICRO-DT-01-Longitud L-Rosca tipo T(M)
(1) (2) (3) (4)

(1) NANO or MICRO family tube: "NA" or "MI"
(1) NANO o MICRO familia tubo: "NA" or "MI"

(2) DT-01: Type of tube: "DT-01"
(2) DT-01: Tipo de tubo: "DT-01"

(3) Length L: "L"+L dimension in mm
(3) Longitud L: "L"+L dimensión en mm

Note:

- Minimum steps in L: 1 mm
- Minimum L: 50 mm
- Maximum L: No limit
- Tolerance L: ± 2 mm

Nota:

- Mínimo incremento en L: 1 mm
- Mínima L: 50 mm
- Máxima L: Sin límite
- Tolerancia: L: ± 2 mm

(4) Thread type T(M):
(4) Tipo de rosca T(M):

ITEM	DESIGNATION T(M)	T(M)	L1/L2
NANO	M6	M6x1(M)	5.0
	M8K	M8x1 KEG(M)	5.25
	B1/8	BSPP 1/8"(M)	7.4
MICRO	M8	M8x1(M)	6.5
	B1/8	BSPP 1/8"(M)	7.4
	BT1/8	BSPT 1/8"(M)	10.8

Example 1: NANO tube, Length: 92 mm and Thread: M6x1(M) in each end: NA-DT-01-L92-M6
Ejemplo 1: Tubo NANO, longitud: 92 mm y Rosca: M6x1(M) en ambos extremos: NA-DT-01-L92-M6

Example 2: MICRO tube, Length: 285 mm and Thread: BSPT1/8"(M) in each end: MI-DT-01-L285-BT1/8
Ejemplo 2: Tubo MICRO tubo, Longitud: 285 mm y Rosca: BSPT1/8"(M) en ambos extremos: MI-DT-01-L285-BT1/8

NA/MI-DT-03

Distribution tubes (Male - Quick Connector Plug).

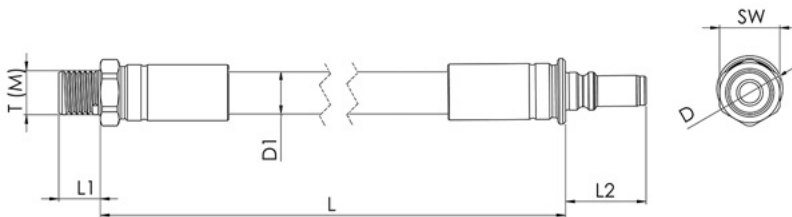
To easily connect 2 elements of the system such as coolant distribution block and tool holder. It requires to be connected to at least 1 quick coupling fitting.

Material: Coated Steel (Fitting) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core).

Tubos de distribución (Macho - Clavija Enchufe Rápido).

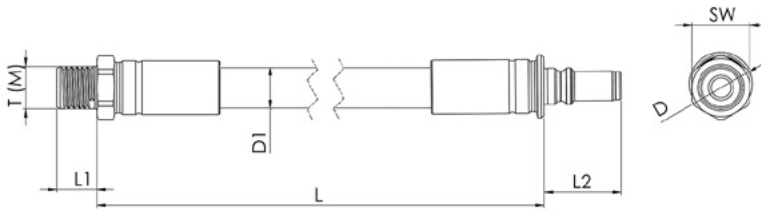
Para conectar fácilmente 2 elementos del sistema tales como un bloque de distribución y un porta-herramientas. Requiere que se conecte al menos con 1 enchufe rápido.

Material: Acero recubierto (Racor) + Acero inox. AISI-304 (Malla externa) + Teflón (Núcleo interno).



ITEM	DESCRIPTION	FAMILY	TUBE ID	BENDING RADIUS	T(M)	L	L1	L2	SW	D	D1
NA-DT-03-L102-M6	FLEX TUBE OD:6.5 mm L=102 mm M6x1(M)-QUICK CONNECTOR	NANO	Ø2.3	15	M6x1	102	5.0	11.0	8	Ø8.8	Ø6.5
NA-DT-03-L152-M6	FLEX TUBE OD:6.5 mm L=152 mm M6x1(M)-QUICK CONNECTOR					152					
NA-DT-03-L203-M6	FLEX TUBE OD:6.5 mm L=203 mm M6x1(M)-QUICK CONNECTOR					203					
NA-DT-03-L305-M6	FLEX TUBE OD:6.5 mm L=305 mm M6x1(M)-QUICK CONNECTOR					305					
NA-DT-03-L406-M6	FLEX TUBE OD:6.5 mm L=406 mm M6x1(M)-QUICK CONNECTOR					406					
NA-DT-03-L102-M8K	FLEX TUBE OD:6.5 mm L=102 mm M8x1 KEG(M)-QUICK CONNECTOR	NANO	Ø2.3	15	M8x1 KEG	102	5.25	11.0	8	Ø8.8	Ø6.5
NA-DT-03-L152-M8K	FLEX TUBE OD:6.5 mm L=152 mm M8x1 KEG(M)-QUICK CONNECTOR					152					
NA-DT-03-L203-M8K	FLEX TUBE OD:6.5 mm L=203 mm M8x1 KEG (M)-QUICK CONNECTOR					203					
NA-DT-03-L305-M8K	FLEX TUBE OD:6.5 mm L=305 mm M8x1 KEG(M)-QUICK CONNECTOR					305					
NA-DT-03-L406-M8K	FLEX TUBE OD:6.5 mm L=406 mm M8x1 KEG(M)-QUICK CONNECTOR					406					

NA/MI-DT-03 cont.



ITEM	DESCRIPTION	FAMILY	TUBE ID	BENDING RADIUS	T(M)	L	L1	L2	SW	D1	
MI-DT-03-L102-M8	FLEX TUBE OD:8 mm L=102 mm M8x1(M)-QUICK CONNECTOR	MICRO	Ø3.8	30	M8x1	102	6.5	14.7	11	Ø12.1	Ø8.0
MI-DT-03-L152-M8	FLEX TUBE OD:8 mm L=152 mm M8x1(M)-QUICK CONNECTOR					152					
MI-DT-03-L203-M8	FLEX TUBE OD:8 mm L=203 mm M8x1(M)-QUICK CONNECTOR					203					
MI-DT-03-L305-M8	FLEX TUBE OD:8 mm L=305 mm M8x1(M)-QUICK CONNECTOR					305					
MI-DT-03-L406-M8	FLEX TUBE OD:8 mm L=406 mm M8x1(M)-QUICK CONNECTOR					406					
MI-DT-03-L102-B1/8	FLEX TUBE OD:8 mm L=102 mm BSPP1/8"(M)-QUICK CONNECTOR	MICRO	Ø3.8	30	BSPP1/8"	102	7.4	14.7	11	Ø12.1	Ø8.0
MI-DT-03-L152-B1/8	FLEX TUBE OD:8 mm L=152 mm BSPP1/8"(M)-QUICK CONNECTOR					152					
MI-DT-03-L203-B1/8	FLEX TUBE OD:8 mm L=203 mm BSPP1/8"(M)-QUICK CONNECTOR					203					
MI-DT-03-L305-B1/8	FLEX TUBE OD:8 mm L=305 mm BSPP1/8"(M)-QUICK CONNECTOR					305					
MI-DT-03-L406-B1/8	FLEX TUBE OD:8 mm L=406 mm BSPP1/8"(M)-QUICK CONNECTOR					406					
MI-DT-03-L102-BT1/8	FLEX TUBE OD:8 mm L=102 mm BSPT1/8"(M)-QUICK CONNECTOR	MICRO	Ø3.8	30	BSPT1/8"	102	10.8	14.7	11	Ø12.1	Ø8.0
MI-DT-03-L152-BT1/8	FLEX TUBE OD:8 mm L=152 mm BSPT1/8"(M)-QUICK CONNECTOR					152					
MI-DT-03-L203-BT1/8	FLEX TUBE OD:8 mm L=203 mm BSPT1/8"(M)-QUICK CONNECTOR					203					
MI-DT-03-L305-BT1/8	FLEX TUBE OD:8 mm L=305 mm BSPT1/8"(M)-QUICK CONNECTOR					305					
MI-DT-03-L406-BT1/8	FLEX TUBE OD:8 mm L=406 mm BSPT1/8"(M)-QUICK CONNECTOR					406					

SPECIAL TUBES: TUBOS ESPECIALES:



Special length tubes to be designated as: NANO or MICRO-DT-03-Length L-Thread type T(M)
(1) (2) (3) (4)

Tubos de longitud especial que se designarán como: NANO o MICRO-DT-03-Longitud L-Rosca tipo T(M)
(1) (2) (3) (4)

(1) NANO or MICRO family tube: "NA" or "MI"
(1) NANO o MICRO familia tubo: "NA" or "MI"

(2) DT-03: Type of tube: "DT-03"
(2) DT-03: Tipo de tubo: "DT-03"

(3) Length L: "L"+L dimension in mm
(3) Longitud L: "L"+L dimensión en mm

Note:

- Minimum steps in L: 1 mm
- Minimum L: 50 mm
- Maximum L: No limit
- Tolerance L: ± 2 mm

Nota:

- Mínimo incremento en L: 1 mm
- Mínima L: 50 mm
- Máxima L: Sin límite
- Tolerancia: L: ± 2 mm

(4) Thread type T(M):
(4) Tipo de rosca T(M):

ITEM	DESIGNATION T(M)	T(M)	L1
NANO	M6	M6x1(M)	5.0
	M8K	M8x1 KEG(M)	5.25
	B1/8	BSPP 1/8"(M)	7.4
MICRO	M8	M8x1(M)	6.5
	B1/8	BSPP 1/8"(M)	7.4
	BT1/8	BSPT 1/8"(M)	10.8

Example 1: NANO tube, Length: 766 mm and Thread: M8x1 KEG(M) in fitting side: NA-DT-03-L766-M8K
Ejemplo 1: Tubo NANO, Longitud: 766 mm y Rosca: M8x1 KEG(M) en lado racor: NA-DT-03-L766-M8K

Example 2: MICRO tube, Length: 1626 mm and Thread: BSPP1/8"(M) in fitting side: MI-DT-03-L1626-B1/8
Ejemplo 2: Tubo MICRO tubo, Longitud: 1626 mm y Rosca: BSPP1/8"(M) en lado racor: MI-DT-03-L1626-B1/8

NA/MI-DT-05



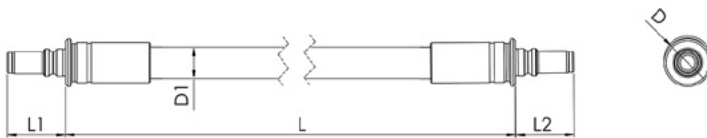
Distribution tubes (Quick Connector Plug - Quick Connector Plug).

To easily connect 2 elements of the system such as coolant distribution block and tool holder. Must be connected to 2 quick coupling fittings.
Material: Coated Steel (Fitting) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core).

Tubos de distribución (Clavija Enchufe Rápido - Clavija Enchufe Rápido).

Para conectar fácilmente 2 elementos del sistema tales como un bloque de distribución y un porta-herramientas. Se debe conectar a 2 enchufes rápidos.

Material: Acero recubierto (Racor) + Acero inox. AISI-304 (Malla externa) + Teflón (Núcleo interno).



ITEM	DESCRIPTION	FAMILY	TUBE ID	BENDING RADIUS	L	L1/L2	D	D1
NA-DT-05-L102	FLEX TUBE OD:6.5 mm L=102 mm QUICK CONNECTOR x2	NANO	Ø2.3	15	102	11.0	Ø8.0	Ø6.5
NA-DT-05-L102	FLEX TUBE OD:6.5 mm L=152 mm QUICK CONNECTOR x2				152			
NA-DT-05-L102	FLEX TUBE OD:6.5 mm L=203 mm QUICK CONNECTOR x2				203			
NA-DT-05-L102	FLEX TUBE OD:6.5 mm L=305 mm QUICK CONNECTOR x2				305			
NA-DT-05-L102	FLEX TUBE OD:6.5 mm L=406 mm QUICK CONNECTOR x2				406			
NA-DT-05-L102	FLEX TUBE OD:8 mm L=102 mm QUICK CONNECTOR x2	MICRO	Ø3.8	30	102	14.7	Ø11.0	Ø8.0
NA-DT-05-L102	FLEX TUBE OD:8 mm L=152 mm QUICK CONNECTOR x2				152			
NA-DT-05-L102	FLEX TUBE OD:8 mm L=203 mm QUICK CONNECTOR x2				203			
NA-DT-05-L102	FLEX TUBE OD:8 mm L=305 mm QUICK CONNECTOR x2				305			
NA-DT-05-L102	FLEX TUBE OD:8 mm L=406 mm QUICK CONNECTOR x2				406			

SPECIAL TUBES: TUBOS ESPECIALES:



Special length tubes to be designated as: NANO or MICRO-DT-05-Length L
(1) (2) (3)

Tubos de longitud especial que se designarán como: NANO o MICRO-DT-03-Longitud L
(1) (2) (3)

(1) NANO or MICRO family tube: "NA" or "MI"

(1) NANO o MICRO familia tubo: "NA" or "MI"

(2) DT-05: Type of tube: "DT-05"

(2) DT-05: Tipo de tubo: "DT-05"

(3) Length L: "L"+L dimension in mm

(3) Longitud L: "L"+L dimensión en mm

Note:

- Minimum steps in L: 1 mm
- Minimum L: 50 mm
- Maximum L: No limit
- Tolerance L: ± 2 mm

Nota:

- Mínimo incremento en L: 1 mm
- Mínima L: 50 mm
- Máxima L: Sin límite
- Tolerancia L: ± 2 mm

Example 1: NANO tube, Length: 485 mm and quick connector plug in each end: NA-DT-05-L485

Ejemplo 1: Tubo NANO, Longitud: 485 mm y clavija enchufe rápido en ambos extremos: NA-DT-05-L485

Example 2: MICRO tube, Length: 178 mm and quick connector plug in each end: MI-DT-05-L178

Ejemplo 2: Tubo MICRO, Longitud: 178 mm y clavija enchufe rápido en ambos extremos: MI-DT-05-L178

COOLANT DISTRIBUTION BLOCKS

BLOQUES DE DISTRIBUCION DE REFRIGERANTE

NA/MI-DB (Fig.1)

Standard distribution block.

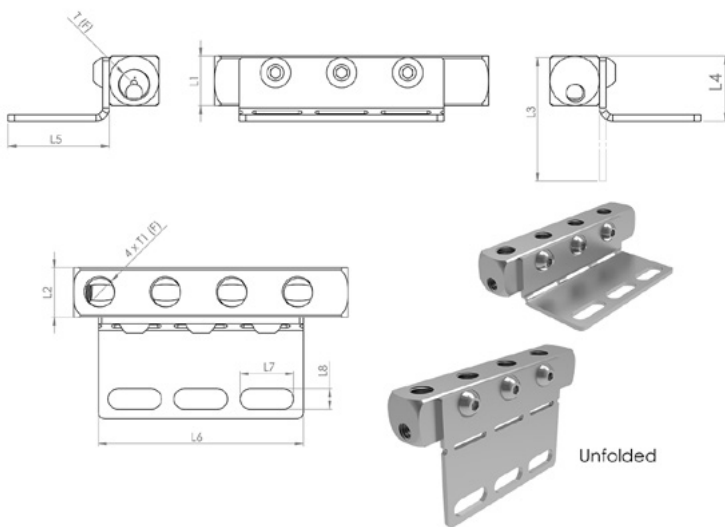
For coolant distribution with 1 inlet (F). 4 outlets (F) and sheet metal support for assembly.

Material: Coated steel.

Bloque de distribución estándar.

Para distribución de refrigerante con 1 entrada (H). 4 salidas (H) y chapa de soporte para montaje.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	T(F)	T1(F)	L	L1	L2	L3	L4	L5	L6	L7	L8
NA-DB-01-03	MANIFOLD 10x10x62mm 4 OUTLETS M5x0.8(F)+1 INLET M6x1(F)	NANO	M6x1	M5x0.8	64.0	10.0	10.0	37.0	15.25	25.65	62.0	16.2	6.2
NA-DB-01-02	MANIFOLD 10x10x62mm 4 OUTLETS M6x1(F)+1 INLET M6x1(F)		M6x1	M6x1									
MI-DB-01-00	MANIFOLD 15x15x83mm 4 OUTLETS M8x1(F)+1 INLET M8x1(F)	MICRO	M8x1	M8x1	83.0	15.0	15.0	47.0	19.5	30.65	62.0	16.2	6.2
MI-DB-01-01	MANIFOLD 15x15x83mm 4 OUTLETS BSPP1/8"(F)+1 INLET BSPP1/8"(F)		BSPP1/8"	BSPP1/8"									

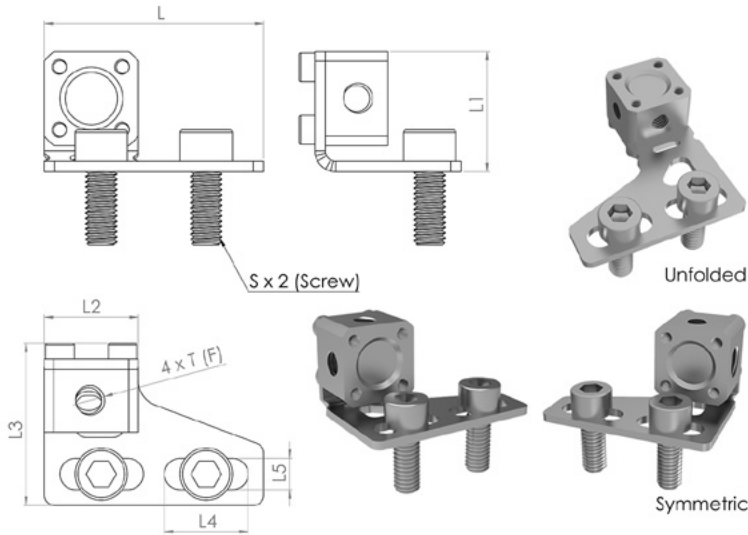
NA-DB (Fig.2)

Compact distribution block.

For coolant distribution block with 1 inlet (F). 3 outlets (F) and sheet metal support for assembly.
Material: Coated Steel.

Bloque de distribución compacto.

Para distribución de refrigerante con 1 entrada (H). 3 salidas (H) y chapa de soporte para montaje.
Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	T(F)	L	L1	L2	L3	L4	L5	S
NA-DB-01-01	MANIFOLD 18x18x12mm 3 OUT. M5x0.8(F)+1 INLET M8x1(F)	NANO	M5x0.8	42.0	23.0	18.0	31.0	23.0	6.0	M6
NA-DB-01-00	MANIFOLD 18x18x12mm 3 OUT. M6x1(F)+1 INLET M8x1(F)		M6x1							

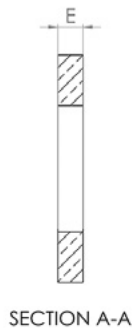
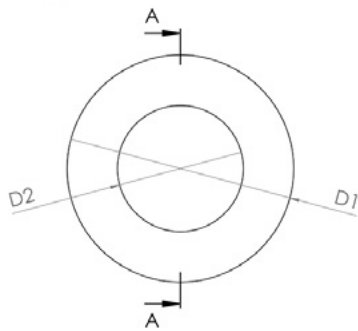
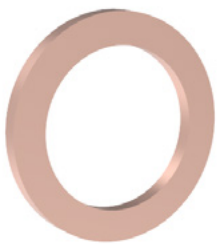
SEALING GASKETS

ARANDELAS DE ESTANQUEIDAD

UN-SG-01

Copper sealing gasket.
 Guarantees the liquid tightness between the different connecting elements.
 Material: Copper.

Arandela de estanqueidad de cobre.
 Garantiza la estanqueidad de los diferentes elementos montados.
 Material: Cobre.

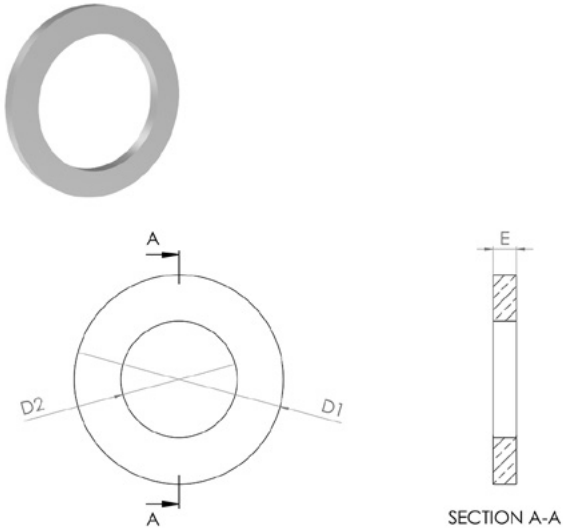


ITEM	DESCRIPTION	FAMILY	E	D1	D2
UN-SG-01-00	COPPER WASHER M5 (10 UNITS)	UNIVERSAL	1.0	Ø9.0	Ø5.0
UN-SG-01-01	COPPER WASHER M6 (10 UNITS)			Ø9.0	Ø6.0
UN-SG-01-02	COPPER WASHER M8 (10 UNITS) AND UNF5/16" (10 UNITS)			Ø11.0	Ø8.0
UN-SG-01-03	COPPER WASHER M10 AND BSPP1/8" (10 UNITS)			Ø14.0	Ø10.0

UN-SG-02

Aluminum sealing gasket.
 Guarantees the liquid tightness between the different connecting elements.
 Material: Aluminum.

Arandela de estanqueidad de aluminio.
 Garantiza la estanqueidad de los diferentes elementos montados.
 Material: Aluminio



ITEM	DESCRIPTION	FAMILY	E	D1	D2
UN-SG-02-00	ALUMINUM WASHER M5 (10 UNITS)	UNIVERSAL	1.0	Ø9.0	Ø5.0
UN-SG-02-01	ALUMINUM WASHER M6 (10 UNITS)			Ø9.0	Ø6.0
UN-SG-02-02	ALUMINUM WASHER M8 AND UNF5/16" (10 UNITS)			Ø11.0	Ø8.0
UN-SG-02-03	ALUMINUM WASHER M10 AND BSPP1/8" (10 UNITS)			Ø14.0	Ø10.0

WRENCHES

LLAVES DE APRIETE

NA/MI-FK

Fastening keys.

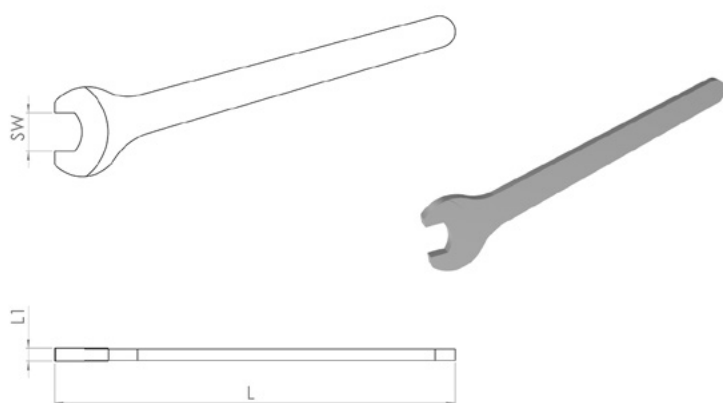
Special wrenches for assembly of the system components.

Material: Coated steel

Llaves de apriete.

Llaves fijas especiales para el montaje de los componentes del sistema.

Material: Acero recubierto.



ITEM	DESCRIPTION	FAMILY	L	L1	SW
NA-FK-01-00	FIXED WRENCH FOR ASSEMBLY NANO PROGRAM. SW8	NANO	90	2.5	8
MI-FK-01-00	FIXED WRENCH FOR ASSEMBLY MICRO/NANO PROGRAM. SW11	MICRO	110	3.7	11
MI-FK-01-01	FIXED WRENCH FOR ASSEMBLY MICRO/NANO PROGRAM. SW13		130	5.8	13

BANJO KITS

KITS BANJO

NA/MI-BK-01 (Fig. 1)



Banjo Kit (Short banjo + Banjo bolt + Quick coupling and Quick connection fitting).

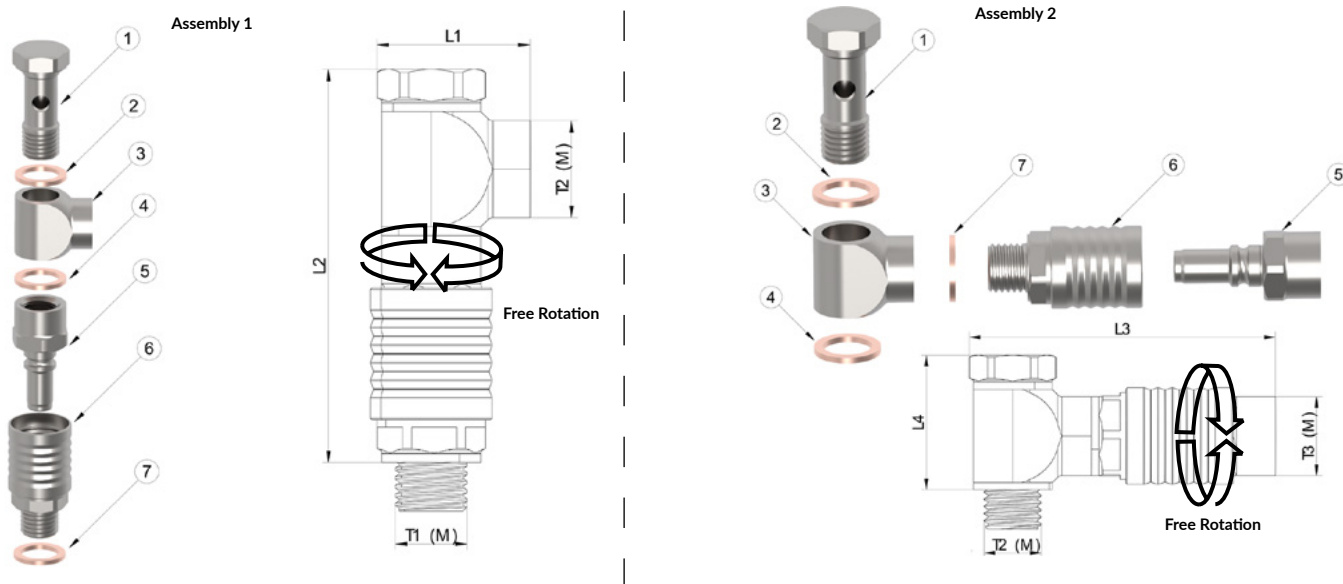
For easy selection of components with 2 possible assemblies of banjo and quick coupling fitting to connect to a flexible tube.

Material: Coated Steel (Fittings) + Copper (sealing gasket).

Kit Banjo (Banjo corto + Tornillo de banjo + Enchufe rápido y Clavija de enchufe rápido).

Para una selección rápida de elementos con 2 posibilidades de montaje de banjo y enchufe rápido para una conexión a tubo flexible.

Material: Acero recubierto (Racores) + Cobre (arandelas de estanqueidad).



- ① Banjo bolt NA/MI-CA-04-□□ with thread T2(M)
- ② Sealing gasket UN-SG-01-□□
- ③ Short banjo NA/MI-CA-04-□□
- ④ Sealing gasket UN-SG-01-□□

- ⑤ Quick connection fitting NA/MI-CC-01-□□ with thread T3(M)
- ⑥ Quick coupling fitting NA/MI-QC-01-□□ with thread T1(M)
- ⑦ Sealing gasket UN-SG-01-□□

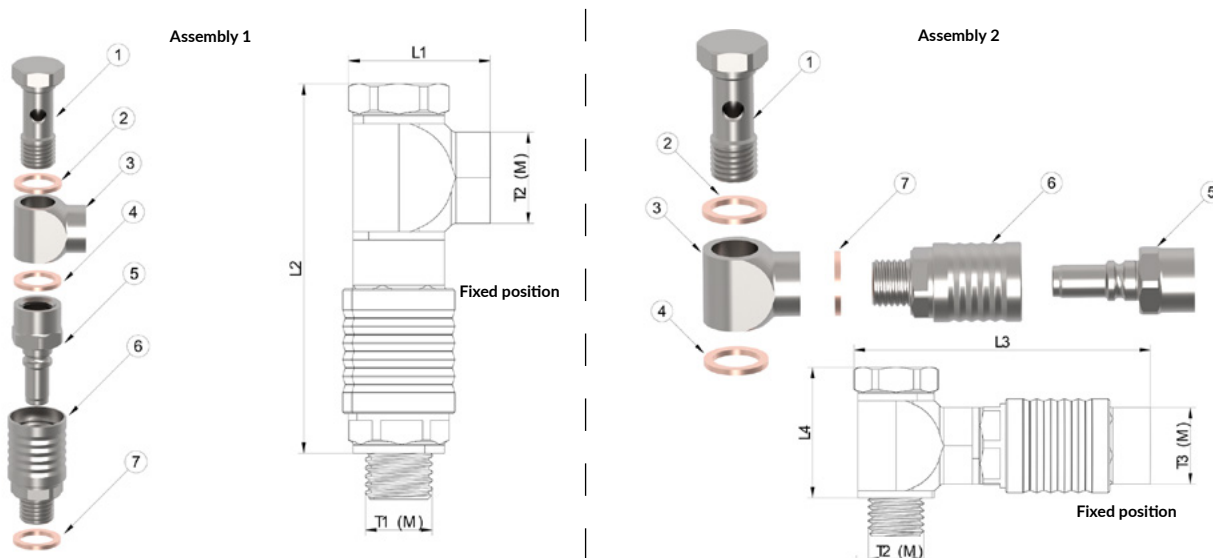
KIT	KIT COMPOSITION (see drawing)	FAMILY	THROUGH HOLE	T1(M)	T2/T3(M)	L1	L2	L3	L4
NA-BK-01-00-M5-M6 (Assembly 2 not possible)	① NA-CA-04-04 ② ④ UN-SG-01-01 ③ NA-CA-04-00 ⑤ NA-CC-01-01 ⑥ NA-QC-01-02 ⑦ UN-SG-01-00	NANO	Ø2.3	M5x0.8	M6x1	10.50	33.50	---	---
NA-BK-01-00-M6-M6	① NA-CA-04-04 ② ④ ⑦ UN-SG-01-01 ③ NA-CA-04-00 ⑤ NA-CC-01-01 ⑥ NA-QC-01-00			M6x1	M6x1	10.50	33.50	40.75	14.25
MI-BK-01-00-M8-M8	① MI-CA-04-04 ② ④ ⑦ UN-SG-01-02 ③ MI-CA-04-00 ⑤ MI-CC-01-01 ⑥ MI-QC-01-00	MICRO	Ø3.8	M8x1	M8x1	17.00	44.5	46.10	18.8
MI-BK-01-00-B1/8-M8 (Assembly 2 not possible)	① MI-CA-04-04 ② ④ UN-SG-01-02 ③ MI-CA-04-00 ⑤ MI-CC-01-01 ⑥ MI-QC-01-03 ⑦ UN-SG-01-03			BSPP1/8"	M8x1	17.00	49.70	---	---
MI-BK-01-00-B1/8-B1/8	① MI-CA-04-17 ② ④ ⑦ UN-SG-01-03 ③ MI-CA-04-13 ⑤ MI-CC-01-05 ⑥ MI-QC-01-03			BSPP1/8"	BSPP1/8"	20.00	56.00	49.70	26

NA/MI-BK-01 (Fig. 2)



Banjo Kit (Short banjo + Banjo bolt + Quick coupling and Non-rotating (positioning) quick connection fitting).
 For easy selection of components with 2 possible assemblies of banjo and quick coupling fitting to connect to copper distribution tubes (NA/MI-DT-02) where positioning is required.
 Material: Coated Steel (Fittings) + Copper (sealing gasket).

Kit Banjo (Banjo corto + Tornillo de banjo + Enchufe rápido y Clavija de enchufe rápido con antigiro (posicionamiento)).
 Para una selección rápida de elementos con 2 posibilidades de montaje de banjo y enchufe rápido para conectar tubos de distribución de cobre (NA/MI-DT-02) donde se requiere posicionamiento.
 Material: Acero recubierto (Racores) + Cobre (arandelas de estanqueidad).



- ① Banjo bolt NA/MI-CA-04-□□ with thread T2(M)
- ② Sealing gasket UN-SG-01-□□
- ③ Short banjo NA/MI-CA-04-□□
- ④ Sealing gasket UN-SG-01-□□
- ⑤ Non-rotating quick connection fitting NA/MI-CC-01-02 with thread T3(M)
- ⑥ Quick coupling fitting NA/MI-QC-01-□□ with thread T1(M)
- ⑦ Sealing gasket UN-SG-01-□□

KIT	KIT COMPOSITION (see drawing)	FAMILY	THROUGH HOLE	T1(M)	T2/T3(M)	L1	L2	L3	L4
NA-BK-01-01-M5-M6 (Assembly 2 not possible)	① NA-CA-04-04 ② ④ UN-SG-01-01 ③ NA-CA-04-00 ⑤ NA-CC-01-02 ⑥ NA-QC-01-02 ⑦ UN-SG-01-00	NANO	Ø2.3	M5x0.8	M6x1	10.50	34.00	---	---
NA-BK-01-01-M6-M6	① NA-CA-04-04 ② ④ ⑦ UN-SG-01-01 ③ NA-CA-04-00 ⑤ NA-CC-01-02 ⑥ NA-QC-01-00			M6x1	M6x1	10.50	34.50	35.00	14.25
MI-BK-01-01-M8-M8	① MI-CA-04-04 ② ④ ⑦ UN-SG-01-02 ③ MI-CA-04-00 ⑤ MI-CC-01-02 ⑥ MI-QC-01-00	MICRO	Ø3.8	M8x1	M8x1	17.00	47.75	46.10	18.80
MI-BK-01-01-B1/8-M8 (Assembly 2 not possible)	① MI-CA-04-04 ② ④ UN-SG-01-02 ③ MI-CA-04-00 ⑤ MI-CC-01-02 ⑥ MI-QC-01-03 ⑦ UN-SG-01-03			BSPP1/8"	M8x1	17.00	17.00	---	---

NA/MI-BK-11



Banjo Kit (2 x Short banjo + Double banjo bolt + 2 x Quick coupling).

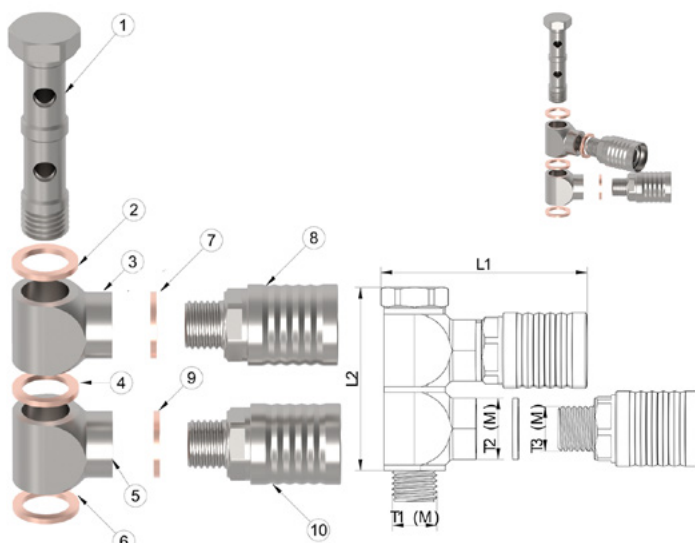
For easy selection of components including 2 banjos and 2 quick couplings to immediately create a distributor to connect flexible distribution tubes or copper tubes.

Material: Coated Steel (Fittings) + Copper (sealing gasket).

Kit Banjo (2 x Banjo corto + Tornillo de banjo doble + 2 x Enchufe rápido).

Para una selección rápida de elementos incluyendo 2 banjos y 2 enchufes rápidos para inmediatamente crear un distribuidor para conectar tubos de distribución flexibles o de cobre.

Material: Acero recubierto (Racores) + Cobre (arandelas de estanqueidad).



- ① Banjo bolt NA/MI-CA-04-□□ with thread T1(M)
- ② Sealing gasket UN-SG-01-□□ for thread T1(M)
- ③ Short banjo NA/MI-CA-04-□□ with thread T2(F)
- ④ Sealing gasket UN-SG-01-□□ for thread T1(M)
- ⑤ Short banjo NA/MI-CA-04-□□ with thread T2(F)
- ⑥ Sealing gasket UN-SG-01-□□ for thread T1(M)
- ⑦ Sealing gasket UN-SG-01-□□ for thread T3(M)
- ⑧ Quick coupling fitting NA/MI-QC-01-□□
- ⑨ Sealing gasket UN-SG-01-□□ for thread T3(M)
- ⑩ Quick coupling fitting NA/MI-QC-01-□□ with thread T3(M)

	KIT COMPOSITION (see drawing)	FAMILY	THROUGH HOLE	T1(M)	T2(F)/T3(M)	L1	L2
NA-BK-11-00-M6-M6	① NA-CA-04-04 ② ④ ⑥ ⑦ ⑨ UN-SG-01-01 ③ ⑤ NA-CA-04-00 ⑧ ⑩ NA-QC-01-00	NANO	Ø2.3	M6x1	M6x1	27.00	14.50
NA-BK-11-00-M6-M6	① MI-CA-04-04 ② ④ ⑥ ⑦ ⑨ UN-SG-01-02 ③ ⑤ MI-CA-04-00 ⑧ ⑩ MI-QC-01-00	MICRO	Ø3.8	M8x1	M8x1	36.85	18.80
MI-BK-11-00-B1/8-M8	① MI-CA-04-18 ② ④ ⑥ UN-SG-01-03 ③ ⑤ MI-CA-04-06 ⑦ ⑨ UN-SG-01-02 ⑧ ⑩ MI-QC-01-00			BSPP-1/8"	M8x1	38.00	34.00
MI-BK-11-00-B1/8-B1/8	① MI-CA-04-18 ② ④ ⑥ ⑦ ⑨ UN-SG-01-03 ③ ⑤ MI-CA-04-13 ⑧ ⑩ MI-QC-01-03			BSPP-1/8"	BSPP-1/8"	44.00	34.00

COPPER TUBE KITS

KITS TUBOS DE COBRE

NA/MI-CK-01



Copper tube Kit (Copper tube NA/MI-DT-02 + Quick coupling fitting).

For easy selection of components including copper distribution tube with quick coupling and sealing gaskets. Non-rotating (positioning).

Material: Coated Steel (Fittings) + Copper (Quick coupling & sealing gasket).

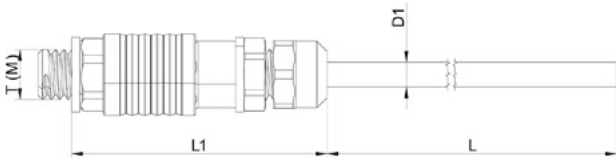
Kit tubo de cobre (Tubo de cobre NA/MI-DT-02 + Enchufe rápido).

Para una selección rápida de elementos que incluye tubo de distribución de cobre con enchufe rápido y arandelas de estanqueidad. Con antigiro (posicionamiento).

Material: Acero recubierto (Racores) + Cobre (Enchufe rápido y arandelas de estanqueidad).



- ① Copper distribution tube NA/MI-DT-02-L□□
- ② Sealing gasket UN-SG-01-□□
- ③ Non-rotating quick connection fitting NA/MI-CC-01-02
- ④ Quick coupling fitting NA/MI-QC-01-□□ with thread T(M)
- ⑤ Sealing gasket UN-SG-01-□□ for thread T(M)



KIT	KIT COMPOSITION (see drawing)	FAMILY	TUBE ID	T1(M)	L	L1	D1
NA-CK-01-L102-M5	① NA-DT-02-L□□ ② UN-SG-01-01 ③ NA-CC-01-02 ④ NA-QC-01-02 ⑤ UN-SG-01-00	NANO	Ø2	M5x0.8	102	30.70	Ø3
NA-CK-01-L203-M5					203		
NA-CK-01-L305-M5					305		
NA-CK-01-L102-M6	① NA-DT-02-L□□ ② ⑤ UN-SG-01-01 ③ NA-CC-01-02 ④ NA-QC-01-00	NANO	Ø2	M6x1	102	30.70	Ø3
NA-CK-01-L203-M6					203		
NA-CK-01-L305-M6					305		
MI-CK-01-L102-M8	① MI-DT-02-L□□ ② ⑤ UN-SG-01-02 ③ MI-CC-01-02 ④ MI-QC-01-00	MICRO	Ø2	M8x1	102	39.70	Ø4
MI-CK-01-L203-M8					203		
MI-CK-01-L305-M8					305		
MI-CK-01-L102-B1/8	① MI-DT-02-L□□ ② UN-SG-01-01 ③ MI-CC-01-02 ④ MI-QC-01-00 ⑤ UN-SG-01-03	MICRO	Ø2	BSPP1/8"	102	39.70	Ø4
MI-CK-01-L203-B1/8					203		
MI-CK-01-L305-B1/8					305		
MI-CK-01-L102-BT1/8	① MI-DT-02-L□□ ② UN-SG-01-01 ③ MI-CC-01-02 ④ MI-QC-01-02 ⑤ --	MICRO	Ø2	BSPT1/8"	102	38.70	Ø4
MI-CK-01-L203-BT1/8					203		
MI-CK-01-L305-BT1/8					305		

FLEXIBLE TUBE KITS

KITS TUBOS FLEXIBLES

NA/MI-SK-01



Flexible tube Kit (Flexible tube NA/MI-DT-03 + Quick coupling fitting).

For easy selection of components including flexible distribution tube with thread fitting (M) in one end and Quick coupling fitting (M) in the other end and sealing gaskets.

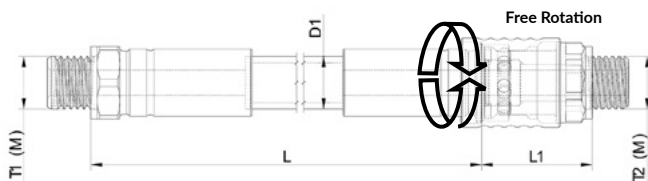
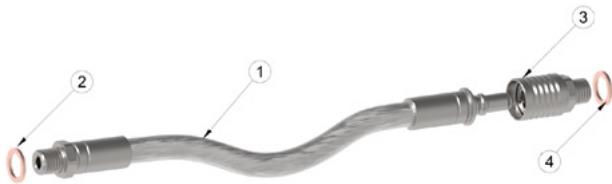
Coated Steel (Fittings) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core) + Copper (sealing gasket).

Kit tubo Flexible (Tubo flexible NA/MI-DT-03 + Enchufe rápido).

Para una selección rápida de elementos que incluye tubo de distribución flexible con racor con rosca (M) en un extremo y enchufe rápido con rosca (M) y arandelas de estanqueidad.

Acero recubierto (Racores) + Acero inox. AISI-304 (Malla externa) + Teflón (Núcleo interno) + Cobre (arandelas de estanqueidad).

- ① Flexible distribution tube NA/MI-DT-03-L□□□-T1(M)
- ② Sealing gasket UN-SG-01-□□ for thread T1(M)
- ③ Quick coupling fitting NA/MI-QC-01-□□ with thread T2(M)
- ④ Sealing gasket UN-SG-01-□□ for thread T2(M).



KIT	KIT COMPOSITION (see drawing)	FAMILY	TUBE ID	BENDING RADIUS	T1(M)	T2(M)	L	L1	D1
NA-SK-01-L102-M6-M6	① NA-DT-03-L□□□ ② UN-SG-01-01 ③ NA-QC-01-00 ④ UN-SG-01-01	NANO	Ø2.3	15	M6x1	M6x1	102	12.85	Ø6.5
NA-SK-01-L152-M6-M6							203		
NA-SK-01-L203-M6-M6							305		
NA-SK-01-L305-M6-M6							102		
NA-SK-01-L406-M6-M6							203		
MI-SK-01-L102-M8-M8	① MI-DT-03-L□□□ ② UN-SG-01-02 ③ MI-QC-01-00 ④ UN-SG-01-02	MICRO	Ø3.8	30	M8x1	M8x1	305	16.30	Ø8.0
MI-SK-01-L152-M8-M8							102		
MI-SK-01-L203-M8-M8							203		
MI-SK-01-L305-M8-M8							305		
MI-SK-01-L406-M8-M8							102		
MI-SK-01-L102-B1/8	① MI-DT-03-L□□□ ② UN-SG-01-03 ③ MI-QC-01-03 ④ UN-SG-01-03	MICRO	Ø3.8	30	BSPP1/8	BSPP1/8	203	21.30	Ø8.0
MI-SK-01-L152-B1/8							305		
MI-SK-01-L203-B1/8							102		
MI-SK-01-L305-B1/8							203		
MI-SK-01-L406-B1/8							305		

SPECIAL KITS: KITS ESPECIALES:

Special length flexible tubes and T1(M) and T2(M) threads. To be designated as: NANO or MICRO-SK-01-Length L-Thread type T1(M) – Thread type T2(M)
(1) (2) (3) (4) (5)

Tubos de longitud especial y roscas T1(M) y T2(M). Se designarán como: NANO o MICRO-SK-01-Longitud L-Rosca tipo T1(M)- Rosca tipo T2(M)
(1) (2) (3) (4) (5)

(1) NANO or MICRO family tube: "NA" or "MI"
(1) NANO o MICRO familia tubo: "NA" or "MI"

(2) SK-01 Type of kit: "SK-01"
(2) SK-01: Tipo de kit: "SK-01"

(3) Length L: "L"+L dimension in mm*
(3) Longitud L: "L"+L dimensión en mm

Note:

- Minimum steps in L: 1 mm
- Minimum L: 50 mm
- Maximum: No limit
- Tolerance L: ±2 mm

Nota:

- Mínimo incremento en L: 1 mm
- Mínima L: 50 mm
- Máxima L: Sin límite
- Tolerancia: L: ±2 mm

(4) Thread type fitting side T1(M): Designation T1(M) according to the table below.

(4) Tipo de rosca en el lado del racor T1(M): Designado T1(M) de acuerdo con la tabla de más abajo.

Note: When the required thread T1(M) is not listed below, please select M6 (for NANO) and M8 (for MICRO) and add to the kit the necessary adaptor in the list of NA/MI-CA-01-□□ together with the corresponding sealing gasket UN-SG-01-□□ (not required for conical threads).

Nota: Cuando la rosca requerida T1(M) no se encuentra listada más abajo, seleccionar M6 (para NANO) y M8 (para MICRO) y añadir al kit el adaptador dentro del listado de NA/MI-CA-01-□□ que sea necesario conjuntamente con las arandelas de estanqueidad UN-SG-01-□□ (no necesarias para roscas cónicas).

FAMILY	DESIGNATION T1(M)	T1(M)	COMPOSITION (see drawing)
NANO	M6	M6x1(M)	① NA-DT-03-L□□-M6 ② UN-SG-01-01
	M8K	M8x1 KEG(M)	① NA-DT-03-L□□-M8K ② --
	B1/8	BSPP 1/8"(M)	① NA-DT-03-L□□-B1/8 ② UN-SG-01-03
MICRO	M8	M8x1(M)	① MI-DT-03-L□□-M8 ② UN-SG-01-02
	B1/8	BSPP 1/8"(M)	① MI-DT-03-L□□-B1/8 ② UN-SG-01-03
	BT1/8	BSPT 1/8"(M)	① MI-DT-03-L□□-BT1/8 ② --

(5) Thread type Quick coupling fitting T2(M): Designation T2(M) according to the table below.

(5) Tipo de rosca en el enchufe rápido T2(M): Designado T2(M) de acuerdo con la tabla de más abajo.

Note: When the required thread T2(M) is not listed below, please select T2(M): M6 (for NANO) and M8 (for MICRO) and add to the kit an adaptor in the list of NA/MI-CA-01-□□ and the corresponding sealing gasket UN-SG-01-□□ (not required for conical threads).

Nota: Cuando la rosca requerida T2(M) no se encuentra listada más abajo, seleccionar M6 (para NANO) y M8 (para MICRO) y añadir al kit el adaptador dentro del listado de NA/MI-CA-01-□□ que sea necesario conjuntamente con las arandelas de estanqueidad UN-SG-01-□□ (no necesarias para roscas cónicas).

FAMILY	DESIGNATION T2(M)	T2(M)	COMPOSITION (see drawing)	L1
NANO	M5	M5x0.8(M)	③ NA-QC-01-02 ④ UN-SG-01-00	12.85
	M6	M6x1(M)	③ NA-QC-01-00 ④ UN-SG-01-01	12.85
	M8	M8x1(M)	③ NA-QC-01-04 ④ UN-SG-01-02	16.20
	M8K	M8x1 KEG(M)	③ NA-QC-01-01 ④ --	12.45
	U5/16	UNF 5/16"-24(M)	③ NA-QC-01-03 ④ UN-SG-01-02	16.20
MICRO	M8	M8x1(M)	③ MI-QC-01-00 ④ UN-SG-01-02	16.30
	M10K	M10x1 KEG(M)	③ MI-QC-01-01 ④ --	15.30
	B1/8	BSPP 1/8"(M)	③ MI-QC-01-03 ④ UN-SG-01-03	20.50
	BT1/8	BSPT 1/8"(M)	③ MI-QC-01-02 ④ --	15.30

Example 1: NANO tube, Length: 140 mm and Thread: BSPP 1/8"(M) in fitting side T1(M) and Thread M8x1 KEG(M) in quick coupling fitting side T2(M): **NA-SK-01-L140-B1/8-M8K**

Ejemplo 1: Tubo NANO, Longitud: 140 mm y Rosca: BSPP 1/8"(M) en lado racor T1(M) y Rosca M8x1 KEG(M) en lado de enchufe rápido T2(M): **NA-SK-01-L140-B1/8-M8K**

Example 2: MICRO tube, Length: 415 mm and Thread: BSPP 1/8"(M) in fitting side T1(M) and Thread M8x1(M) in quick coupling fitting side T2(M): **MI-SK-01-L415-B1/8-M8**

Ejemplo 2: Tubo MICRO, Longitud: 415 mm y Rosca: BSPP 1/8"(M) en lado racor T1(M) y Rosca M8x1 (M) en lado de enchufe rápido T2(M): **MI-SK-01-L415-B1/8-M8**

NA/MI-SK-02



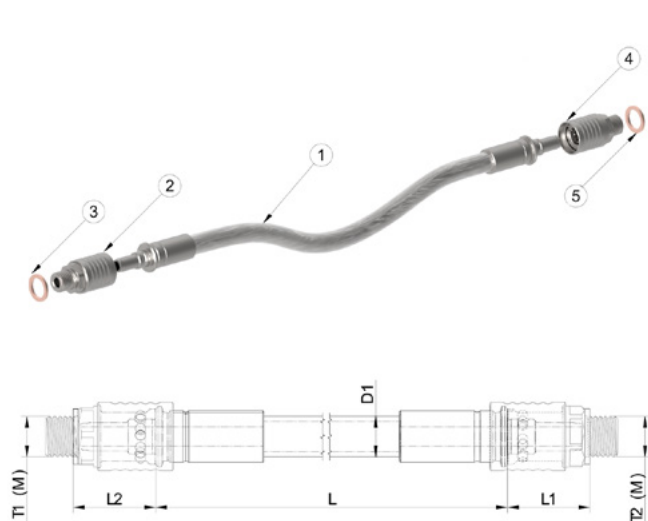
Flexible tube Kit (Flexible tube NA/MI-DT-05 + Quick coupling fitting in both ends).

For easy selection of components including flexible distribution tube with Quick coupling fitting (M) in both ends and sealing gaskets.
Material: Coated Steel (Fittings) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core) + Copper (sealing gasket).

Kit tubo Flexible (Tubo flexible NA/MI-DT-05 + Enchufe rápido en ambos extremos).

Para una selección rápida de elementos que incluye tubo de distribución flexible con enchufe rápido con rosca (M) con o sin adaptadores en ambos extremos y arandelas de sellado.

Material: Acero recubierto (Racores) + Acero inox. AISI-304 (Malla externa) + Teflón (Núcleo interno) + Cobre (arandelas de estanqueidad).



- ① Flexible distribution tube NA/MI-DT-05-L□□□
- ② Quick coupling fitting NA/MI-QC-01-□□ with thread T1(M)
- ③ Sealing gasket for fitting thread T1(M)
- ④ Quick coupling fitting NA/MI-QC-01-□□ with thread T2(M).
- ⑤ Sealing gasket for Quick coupling fitting thread T2(M).

	KIT COMPOSITION (see drawing)	FAMILY	TUBE ID	BENDING RADIUS	T1(M)	T2(M)	L	L1/L2	D1
NA-SK-02-L102-M6-M6	① NA-DT-05-L□□□ ② NA-QC-01-00 ③ UN-SG-01-01 ④ NA-QC-01-00 ⑤ UN-SG-01-01	NANO	Ø2.3	15	M6x1	M6x1	102	12.85	Ø6.5
NA-SK-02-L152-M6-M6							152		
NA-SK-02-L203-M6-M6							203		
NA-SK-02-L305-M6-M6							305		
NA-SK-02-L406-M6-M6							406		
MI-SK-02-L102-M8-M8	① MI-DT-05-L□□□ ② MI-QC-01-00 ③ UN-SG-01-02 ④ MI-QC-01-00 ⑤ UN-SG-01-02	NANO	Ø3.8	30	M8x1	M8x1	102	16.30	Ø8.0
MI-SK-02-L152-M8-M8							152		
MI-SK-02-L203-M8-M8							203		
MI-SK-02-L305-M8-M8							305		
MI-SK-02-L406-M8-M8							406		
MI-SK-02-L102-B1/8	① MI-DT-05-L□□□ ② MI-QC-01-03 ③ UN-SG-01-03 ④ MI-QC-01-03 ⑤ UN-SG-01-03	NANO	Ø3.8	30	BSPP1/8"	BSPP1/8"	102	21.30	Ø8.0
MI-SK-02-L152-B1/8							152		
MI-SK-02-L203-B1/8							203		
MI-SK-02-L305-B1/8							305		
MI-SK-02-L406-B1/8							406		

SPECIAL KITS:

KITS ESPECIALES:

Special length flexible tubes and T1(M) and T2(M) threads. To be designated as: NANO or MICRO-SK-02-Length L-Thread type T1(M) – Thread type T2(M)
 (1) (2) (3) (4) (5)

Tubos de longitud especial y roscas T1(M) y T2(M). Se designarán como: NANO o MICRO-SK-02-Longitud L-Rosca tipo T1(M)- Rosca tipo T2(M)
 (1) (2) (3) (4) (5)

(1) NANO or MICRO family tube: "NA" or "MI"
 (1) NANO o MICRO familia tubo: "NA" or "MI"

(2) SK-02 Type of kit: "SK-02"
 (2) SK-02: Tipo de kit: "SK-02"

(3) Length L: "L"+L dimension in mm
 (3) Longitud L: "L"+L dimensión en mm

Note:

- Minimum steps in L: 1 mm
- Minimum L: 50 mm
- Maximum: No limit
- Tolerance L: ±2 mm

Nota:

- Mínimo incremento en L: 1 mm
- Mínima L: 50 mm
- Máxima L: Sin límite
- Tolerancia: L: ±2 mm

(4) Thread type quick coupling fitting T1(M): Designation T1(M) according to the table below.
 (4) Tipo de rosca en el enchufe rápido T1(M): Designado T1(M) de acuerdo con la tabla de más abajo.

Note: When the required thread T1(M) is not listed below, please select M6 (for NANO) and M8 (for MICRO) and add to the kit the necessary adaptor in the list of NA/MI-CA-01-□□ together with the corresponding sealing gasket UN-SG-01-□□ (not required for conical threads).
 Nota: Cuando la rosca requerida T1(M) no se encuentra listada más abajo, seleccionar M6 (para NANO) y M8 (para MICRO) y añadir al kit el adaptador dentro del listado de NA/MI-CA-01-□□ que sea necesario conjuntamente con las arandelas de estanqueidad UN-SG-01-□□ (no necesarias para roscas cónicas).

FAMILY	DESIGNATION T1(M)	T1(M)	COMPOSITION (see drawing)	L2
NANO	M5	M5x0.8(M)	② NA-QC-01-02 ③ UN-SG-01-00	12.85
	M6	M6x1(M)	② NA-QC-01-00 ③ UN-SG-01-01	12.85
	M8	M8x1(M)	② NA-QC-01-04 ③ UN-SG-01-02	16.20
	M8K	M8x1 KEG(M)	② NA-QC-01-01 ③ --	12.45
	U5/16	UNF 5/16"-24(M)	② NA-QC-01-03 ③ UN-SG-01-02	16.20
MICRO	M8	M8x1(M)	② MI-QC-01-00 ③ UN-SG-01-02	16.30
	M10K	M10x1 KEG(M)	② MI-QC-01-01 ③ --	15.30
	B1/8	BSPP 1/8"(M)	② MI-QC-01-03 ③ UN-SG-01-03	20.50
	BT1/8	BSPT 1/8"(M)	② MI-QC-01-02 ③ --	15.30

(5) Thread type Quick coupling fitting T2(M): Designation T2(M) according to the table below.
 (5) Tipo de rosca en el enchufe rápido T2(M): Designado T2(M) de acuerdo con la tabla de más abajo.

Note: When the required thread T2(M) is not listed below, please select T2(M): M6 (for NANO) and M8 (for MICRO) and add to the kit an adaptor in the list of NA/MI-CA-01-□□ and the corresponding sealing gasket UN-SG-01-□□ (not required for conical threads).

Nota: Cuando la rosca requerida T2(M) no se encuentra listada más abajo, seleccionar M6 (para NANO) y M8 (para MICRO) y añadir al kit el adaptador dentro del listado de NA/MI-CA-01-□□ que sea necesario conjuntamente con las arandelas de estanqueidad UN-SG-01-□□ (no necesarias para roscas cónicas).

FAMILY	DESIGNATION T2(M)	T2(M)	COMPOSITION (see drawing)	L1
NANO	M5	M5x0.8(M)	③ NA-QC-01-02 ④ UN-SG-01-00	12.85
	M6	M6x1(M)	③ NA-QC-01-00 ④ UN-SG-01-01	12.85
	M8	M8x1(M)	③ NA-QC-01-04 ④ UN-SG-01-02	16.20
	M8K	M8x1 KEG(M)	③ NA-QC-01-01 ④ --	12.45
	U5/16	UNF 5/16"-24(M)	③ NA-QC-01-03 ④ UN-SG-01-02	16.20
MICRO	M8	M8x1(M)	③ MI-QC-01-00 ④ UN-SG-01-02	16.30
	M10K	M10x1 KEG(M)	③ MI-QC-01-01 ④ --	15.30
	B1/8	BSPP 1/8"(M)	③ MI-QC-01-03 ④ UN-SG-01-03	20.50
	BT1/8	BSPT 1/8"(M)	③ MI-QC-01-02 ④ --	15.30

Example 1: NANO tube, length: 286 mm and Thread: M6x1 (M) in quick coupling fitting side T1(M) and Thread UNF 5/16"-24(M) in quick coupling fitting side T2(M): **NA-SK-02-L286-M6-U5/16**

Ejemplo 1: Tubo NANO, Longitud: 286 mm y Rosca: M6x1 (M) en lado de enchufe rápido T1(M) y Rosca UNF 5/16"-24(M) en lado de enchufe rápido T2(M): **NA-SK-02-L286-M6-U5/16**

Example 2: MICRO tube, length: 1230 mm and Thread: BSPT1/8"(M) in quick coupling fitting side T1(M) and Thread M8x1(M) in quick coupling fitting side T2(M): **MI-SK-02-L1230-BT1/8-M8**

Ejemplo 2: Tubo MICRO, Longitud: 1230 mm y Rosca: BSPT 1/8"(M) en lado de enchufe rápido T1(M) y Rosca M8x1 (M) en lado de enchufe rápido T2(M): **MI-SK-02-L1230-BT1/8-M8**

NA/MI-SK-03



Flexible tube Kit (Flexible tube NA/MI-DT-03 + Quick coupling fitting with short banjo and integrated rotary banjo bolt).

For easy selection of components including flexible distribution tube with thread fitting (M) in one end and Quick coupling fitting with short banjo and integrated rotary banjo bolt (M) in the other end and sealing gaskets.

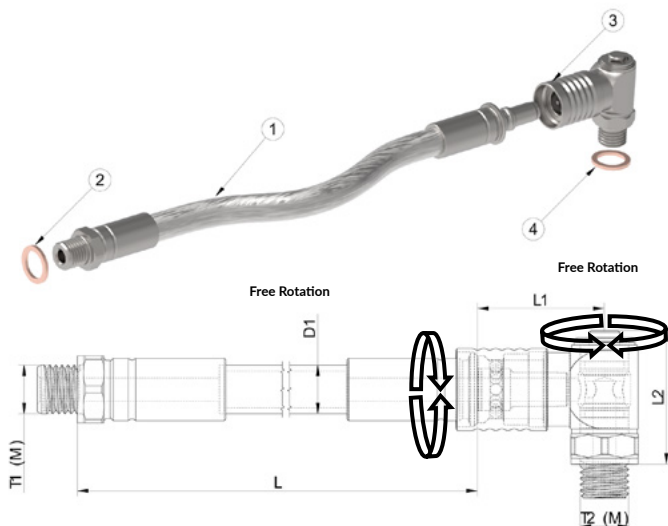
Material: Coated Steel (Fittings) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core) + Copper (sealing gasket).

Kit tubo Flexible (Tubo flexible MI/NA-DT-03 + Enchufe rápido con banjo y tornillo de banjo rotativo integrado).

Para una selección rápida de elementos que incluye tubo de distribución flexible con racor con rosca (M) en un extremo y enchufe rápido con banjo y tornillo de banjo (M) rotativo integrado en el otro extremo y arandelas de estanqueidad.

Material: Acero recubierto (Racores) + Acero inox. AISI-304 (Malla externa) + Teflon (Núcleo interno) + Cobre (arandelas de estanqueidad).

- ① Flexible distribution tube NA/MI-DT-03-L000-T1(M)
- ② Sealing gasket for fitting thread T1(M)
- ③ Quick coupling fitting with short banjo and integrated rotary banjo bolt NA/MI-QC-03-00 with thread T2(M).
- ④ Sealing gasket for Quick coupling fitting thread T2(M).



	KIT COMPOSITION (see drawing)	FAMILY	TUBE ID	BENDING RADIUS	T1(M)	T2(M)	L	L1	L2	D1
NA-SK-03-L102-M6-M6	① NA-DT-03-L000-M6 ② UN-SG-01-01 ③ NA-QC-03-00 ④ UN-SG-01-01	NANO	Ø2.3	15	M8x1	M6x1	102	15.8	15.9	Ø6.5
NA-SK-03-L152-M6-M6							152			
NA-SK-03-L203-M6-M6							203			
NA-SK-03-L305-M6-M6							305			
NA-SK-03-L406-M6-M6							406			
MI-SK-03-L102-M8-M8	① MI-DT-03-L000-M8 ② UN-SG-01-02 ③ MI-QC-03-00 ④ UN-SG-01-02	MICRO	Ø3.8	30	M8x1	M8x1	102	21.0	22.0	Ø8.0
MI-SK-03-L152-M8-M8							152			
MI-SK-03-L203-M8-M8							203			
MI-SK-03-L305-M8-M8							305			
MI-SK-03-L406-M8-M8							406			
MI-SK-03-L102-B1/8	① MI-DT-03-L000-B1/8 ② UN-SG-01-03 ③ MI-QC-03-01 ④ UN-SG-01-03	MICRO	Ø3.8	30	BSPP1/8"	BSPP1/8"	102	21.0	22.0	Ø8.0
MI-SK-03-L152-B1/8							152			
MI-SK-03-L203-B1/8							203			
MI-SK-03-L305-B1/8							305			
MI-SK-03-L406-B1/8							406			

SPECIAL KITS: KITS ESPECIALES:

Special length flexible tubes and T1(M) and T2(M) threads. To be designated as: NANO or MICRO-SK-03-Length L-Thread type T1(M) - Thread type T2(M)
(1) (2) (3) (4) (5)

Tubos de longitud especial y roscas T1(M) y T2(M). Se designarán como: NANO o MICRO-SK-02-Longitud L-Rosca tipo T1(M)- Rosca tipo T2(M)
(1) (2) (3) (4) (5)

(1) NANO or MICRO family tube: "NA" or "MI"
(1) NANO o MICRO familia tubo: "NA" or "MI"

(2) SK-03 Type of kit: "SK-03"
(2) SK-03: Tipo de kit: "SK-03"

(3) Length L: "L"+ L dimension in mm
(3) Longitud L: "L"+ L dimensión en mm

Note:

- Minimum steps in L: 1 mm
- Minimum L: 50 mm
- Maximum: No limit
- Tolerance L: ± 2 mm

Nota:

- Mínimo incremento en L: 1 mm
- Mínima L: 50 mm
- Máxima L: Sin límite
- Tolerancia: L: ± 2 mm

(4) Thread type fitting side T1(M): Designation T1(M) according to the table below.
(4) Tipo de rosca en el lado del racor T1(M): Designado T1(M) de acuerdo con la tabla de más abajo.

Note: When the required thread T1(M) is not listed below, please select M6 (for NANO) and M8 (for MICRO) and add to the kit the necessary adaptor in the list of NA/MI-CA-01-□□ together with the corresponding sealing gasket UN-SG-01-□□ (not required for conical threads).

Nota: Cuando la rosca requerida T1(M) no se encuentra listada más abajo, seleccionar M6 (para NANO) y M8 (para MICRO) y añadir al kit el adaptador dentro del listado de NA/MI-CA-01-□□ que sea necesario conjuntamente con las arandelas de estanqueidad UN-SG-01-□□ (no necesarias para roscas cónicas).

FAMILY	DESIGNATION T1(M)	T1(M)	COMPOSITION (see drawing)
NANO	M6	M6x1(M)	① NA-DT-03-L□□-M6 ② UN-SG-01-01
	M8K	M8x1 KEG(M)	① NA-DT-03-L□□-M8K ② --
	B1/8	BSPP 1/8"(M)	① NA-DT-03-L□□-B1/8 ② UN-SG-01-03
MICRO	M8	M8x1(M)	① MI-DT-03-L□□-M8 ② UN-SG-01-02
	B1/8	BSPP 1/8"(M)	① MI-DT-03-L□□-B1/8 ② UN-SG-01-03
	BT1/8	BSPT 1/8"(M)	① MI-DT-03-L□□-BT1/8 ② --

(5) Thread type Quick coupling fitting with short banjo and integrated rotary banjo bolt side T2(M): Designation T2(M) according to the table below.

(5) Tipo de rosca en el lado de enchufe rápido con banjo y tornillo de banjo rotativo integrado T2(M): Designado T2(M) de acuerdo con la tabla de más abajo.

Note: When the required thread T2(M) is not listed below, please select T2(M): M6 (for NANO) and M8 (for MICRO) and add to the kit an adaptor in the list of NA/MI-CA-01-□□ and the corresponding sealing gasket UN-SG-01-□□ (not required for conical threads).

Nota: Cuando la rosca requerida T2(M) no se encuentra listada más abajo, seleccionar M6 (para NANO) y M8 (para MICRO) y añadir al kit el adaptador dentro del listado de NA/MI-CA-01-□□ que sea necesario conjuntamente con las arandelas de estanqueidad UN-SG-01-□□ (no necesarias para roscas cónicas).

FAMILY	DESIGNATION T2(M)	T2(M)	COMPOSITION (see drawing)	L1	L2
NANO	M5	M5x0.8(M)	③ NA-QC-03-01 ④ UN-SG-01-00	15.80	15.2
	M6	M6x1(M)	③ NA-QC-03-00 ④ UN-SG-01-01	15.80	15.9
	M8	M8x1(M)	③ NA-QC-03-03 ④ UN-SG-01-02	15.80	17.1
	U5/16	UNF 5/16"-24(M)	③ NA-QC-03-02 ④ UN-SG-01-02	15.80	17.1
MICRO	M8	M8x1(M)	③ MI-QC-03-00 ④ UN-SG-01-02	21.00	22.0
	M10	M10x1(M)	③ MI-QC-03-00 ④ UN-SG-01-02	21.00	22.0
	B1/8	BSPP 1/8"(M)	③ MI-QC-03-01 ④ UN-SG-01-03	21.00	22.0

Example 1: NANO tube, length: 190 mm and Thread: BSPP 1/8 (M) in fitting side T1(M) and Thread UNF 5/16-24(M) in quick coupling fitting with short banjo and integrated rotary banjo bolt side T2(M):

NA-SK-03-L190-B1/8-U5/16

Ejemplo 1: Tubo NANO, Longitud: 190 mm y Rosca: BSPP 1/8 (M) en lado de racor T1(M) y Rosca UNF 5/16"-24(M) en lado de enchufe rápido con banjo y tornillo de banjo rotativo integrado T2(M):

NA-SK-03-L190-B1/8-U5/16

Example 2: MICRO tube, length: 225 mm and Thread: BSPT 1/8(M) in fitting side T1(M) and Thread M8x1(M) in quick coupling fitting with short banjo and integrated rotary banjo bolt side T2(M):

MI-SK-03-L225-BT1/8-M8

Ejemplo 2: Tubo MICRO, Longitud: 225 mm y Rosca: BSPT 1/8 (M) en lado de racor T1(M) y Rosca M8x1(M) en lado de enchufe rápido con banjo y tornillo de banjo rotativo integrado T2(M):

MI-SK-03-L225-BT1/8-M8



Flexible tube Kit (Flexible tube NA/MI-DT-05 + Quick coupling fitting in one end and Quick coupling fitting with short banjo and integrated rotary banjo bolt in the other end).

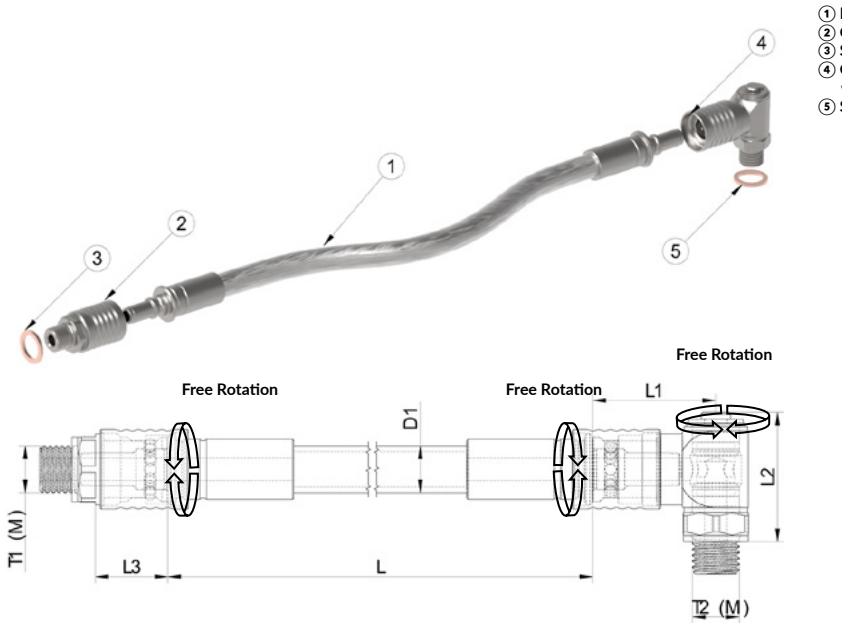
For easy selection of components including flexible distribution tube with Quick coupling (M) in one end and Quick coupling fitting with short banjo and integrated rotary banjo bolt (M) in the other end and sealing gaskets.

Material: Coated Steel (Fittings) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core) + Copper (sealing gasket).

Kit tubo Flexible (Tubo flexible MI/NA-DT-05 + Enchufe rápido en un extremo y Enchufe rápido con banjo y tornillo de banjo rotativo integrado en el otro extremo).

Para una selección rápida de elementos que incluye tubo de distribución flexible con enchufe rápido rosca (M) en un extremo y enchufe rápido con banjo y tornillo de banjo (M) rotativo integrado en el otro extremo y arandelas de estanqueidad.

Acero recubierto (Racores) + Acero inox. AISI-304 (Malla externa) + Teflon (Núcleo interno) + Cobre (arandelas de estanqueidad).



- ① Flexible distribution tube NA/MI-DT-05-L□□□
- ② Quick coupling fitting NA/MI-QC-01-□□ with thread T1(M)
- ③ Sealing gasket for fitting thread T1(M)
- ④ Quick coupling fitting with short banjo and integrated rotary banjo bolt NA/MI-QC-01-□□ with thread T2(M).
- ⑤ Sealing gasket for Quick coupling fitting thread T2(M).

KIT	KIT COMPOSITION (see drawing)	FAMILY	TUBE ID	BENDING RADIUS	T1(M)	T2(M)	L	L1	L2	L3	D1
NA-SK-04-L102-M6-M6	① NA-DT-05-L□□□ ② NA-QC-01-00 ③ UN-SG-01-01 ④ NA-QC-03-00 ⑤ UN-SG-01-01	NANO	Ø2.3	15	M6x1	M6x1	102	15.8	15.9	12.85	Ø6.5
NA-SK-04-L152-M6-M6							152				
NA-SK-04-L203-M6-M6							203				
NA-SK-04-L305-M6-M6							305				
NA-SK-04-L406-M6-M6							406				
MI-SK-04-L102-M8-M8	① MI-DT-05-L□□□ ② MI-QC-01-00 ③ UN-SG-01-02 ④ MI-QC-03-00 ⑤ UN-SG-01-02	MICRO	Ø3.8	30	M8x1	M8x1	102	21.0	22.0	16.30	Ø8.0
MI-SK-04-L152-M8-M8							152				
MI-SK-04-L203-M8-M8							203				
MI-SK-04-L305-M8-M8							305				
MI-SK-04-L406-M8-M8							406				
MI-SK-04-L102-B1/8	① MI-DT-05-L□□□ ② MI-QC-01-03 ③ UN-SG-01-03 ④ MI-QC-03-01 ⑤ UN-SG-01-03	MICRO	Ø3.8	30	BSPP1/8"	BSPP1/8"	102	21.0	22.0	20.5	Ø8.0
MI-SK-04-L152-B1/8							152				
MI-SK-04-L203-B1/8							203				
MI-SK-04-L305-B1/8							305				
MI-SK-04-L406-B1/8							406				

SPECIAL KITS: KITS ESPECIALES:

Special length flexible tubes and T1(M) and T2(M) threads. To be designated as: NANO or MICRO-SK-04-Length L-Thread type T1(M) - Thread type T2(M)
(1) (2) (3) (4) (5)

Tubos de longitud especial y roscas T1(M) y T2(M). Se designarán como: NANO o MICRO-SK-04-Longitud L-Rosca tipo T1(M)- Rosca tipo T2(M)
(1) (2) (3) (4) (5)

(1) NANO or MICRO family tube: "NA" or "MI"
(1) NANO o MICRO familia tubo: "NA" or "MI"

(2) SK-04 Type of kit: "SK-04"
(2) SK-04: Tipo de kit: "SK-04"

(3) Length L: "L"+L dimension in mm
(3) Longitud L: "L"+L dimensión en mm

Note:

- Minimum steps in L: 1 mm
- Minimum L: 50 mm
- Maximum: No limit
- Tolerance L: ±2 mm

Nota:

- Mínimo incremento en L: 1 mm
- Mínima L: 50 mm
- Máxima L: Sin límite
- Tolerancia: L: ±2 mm

(4) Thread type quick coupling fitting T1(M): Designation T1(M) according to the table below.

(4) Tipo de rosca en el enchufe rápido T1(M): Designado T1(M) de acuerdo con la tabla de más abajo.

Note: When the required thread T1(M) is not listed below, please select M6 (for NANO) and M8 (for MICRO) and add to the kit the necessary adaptor in the list of NA/MI-CA-01-□□ together with the corresponding sealing gasket UN-SG-01-□□ (not required for conical threads).

Nota: Cuando la rosca requerida T1(M) no se encuentra listada más abajo, seleccionar M6 (para NANO) y M8 (para MICRO) y añadir al kit el adaptador dentro del listado de NA/MI-CA-01-□□ que sea necesario conjuntamente con las arandelas de estanqueidad UN-SG-01-□□ (no necesarias para roscas cónicas).

FAMILY	DESIGNATION T1(M)	T1(M)	COMPOSITION (see drawing)	L3
NANO	M5	M5x0.8(M)	② NA-QC-01-02 ③ UN-SG-01-00	12.85
	M6	M6x1(M)	② NA-QC-01-00 ③ UN-SG-01-01	12.85
	M8	M8x1(M)	② NA-QC-01-04 ③ UN-SG-01-02	16.20
	M8K	M8x1 KEG(M)	② NA-QC-01-01 ③ --	12.45
	U5/16	UNF 5/16"-24(M)	② NA-QC-01-03 ③ UN-SG-01-02	16.20
MICRO	M8	M8x1(M)	② MI-QC-01-00 ③ UN-SG-01-02	16.30
	M10K	M10x1 KEG(M)	② MI-QC-01-01 ③ --	15.30
	B1/8	BSPP 1/8"(M)	② MI-QC-01-03 ③ UN-SG-01-03	20.50
	BT1/8	BSPT 1/8"(M)	② MI-QC-01-02 ③ --	15.30

(5) Thread type Quick coupling fitting with short banjo and integrated rotary banjo bolt side T2(M): Designation T2(M) according to the table below.

(5) Tipo de rosca en el lado de enchufe rápido con banjo y tornillo de banjo rotativo integrado T2(M): Designado T2(M) de acuerdo con la tabla de más abajo.

Note: When the required thread T2(M) is not listed below, please select T2(M): M6 (for NANO) and M8 (for MICRO) and add to the kit an adaptor in the list of NA/MI-CA-01-□□ and the corresponding sealing gasket UN-SG-01-□□ (not required for conical threads).

Nota: Cuando la rosca requerida T2(M) no se encuentra listada más abajo, seleccionar M6 (para NANO) y M8 (para MICRO) y añadir al kit el adaptador dentro del listado de NA/MI-CA-01-□□ que sea necesario conjuntamente con las arandelas de estanqueidad UN-SG-01-□□ (no necesarias para roscas cónicas).

FAMILY	DESIGNATION T2(M)	T2(M)	COMPOSITION (see drawing)	L1	L2
NANO	M5	M5x0.8(M)	③ NA-QC-03-01 ④ UN-SG-01-00	15.80	15.2
	M6	M6x1(M)	③ NA-QC-03-00 ④ UN-SG-01-01	15.80	15.9
	M8	M8x1(M)	③ NA-QC-03-03 ④ UN-SG-01-02	15.80	17.1
	U5/16	UNF 5/16"-24(M)	③ NA-QC-03-02 ④ UN-SG-01-02	15.80	17.1
MICRO	M8	M8x1(M)	③ MI-QC-03-00 ④ UN-SG-01-02	21.00	22.0
	M10	M10x1(M)	③ MI-QC-03-02 ④ UN-SG-01-03	21.00	22.0
	B1/8	BSPP 1/8"(M)	③ MI-QC-03-01 ④ UN-SG-01-03	21.00	22.0

Example 1: NANO tube, length: 222 mm and Thread: M8x1 (M) in quick coupling fitting side T1(M) and Thread M5x0.8(M) in quick coupling fitting with short banjo and integrated rotary banjo bolt side T2(M):
NA-SK-04-L222-M8-M5

Ejemplo 1: Tubo NANO, Longitud: 222 mm y Rosca: M8x1 (M) en lado enchufe rápido T1(M) y Rosca M5x0.8(M) en lado de enchufe rápido con banjo y tornillo de banjo rotativo integrado T2(M):
NA-SK-04-L222-M8-M5

Example 2: MICRO tube, length: 330 mm and Thread: BSPP 1/8"(M) in quick coupling fitting side T1(M) and Thread BSPP 1/8"(M) in quick coupling fitting with short banjo and integrated rotary banjo bolt side T2(M):
MI-SK-04-L330-B1/8-B1/8

Ejemplo 2: Tubo MICRO, Longitud: 330 mm y Rosca: BSPP 1/8"(M) en lado enchufe rápido T1(M) y Rosca BSPP 1/8"(M) en lado de enchufe rápido con banjo y tornillo de banjo rotativo integrado T2(M):
MI-SK-04-L330-B1/8-B1/8

STARTER KITS

KITS DE INICIACIÓN

NA-SK-10-00

Starter Kit NANO (Basic set Swiss-type lathe).

To set up a machine to work with coolant through the tools. Ideal for small diameter lathes with small tooling.

Material: Coated Steel (Fittings) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core) + Copper (sealing gasket).

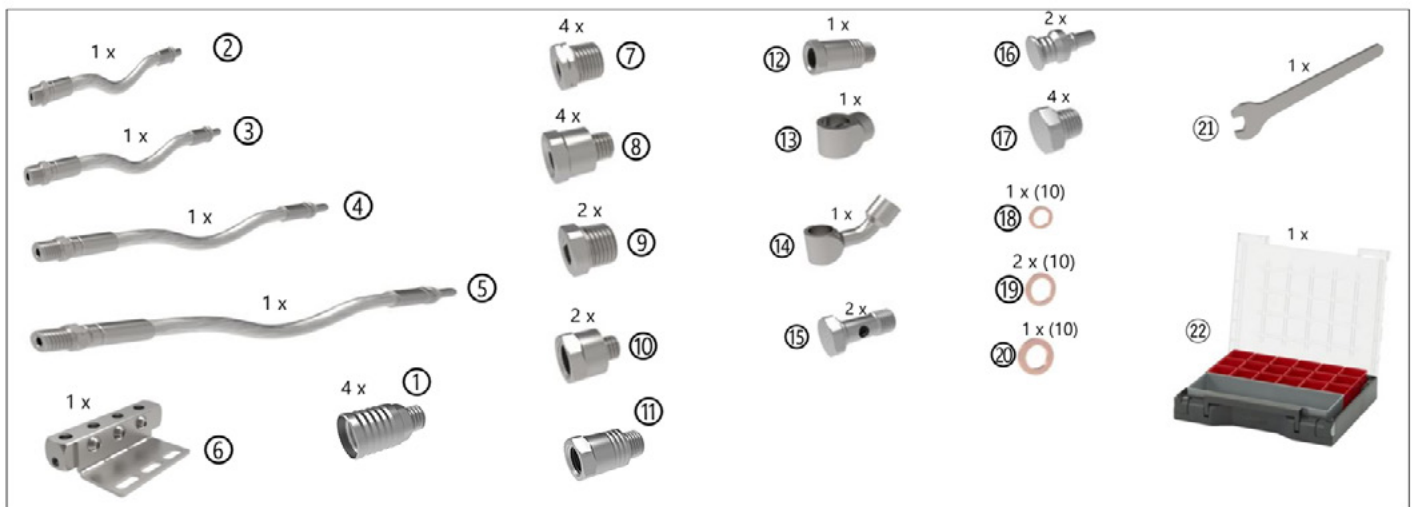
Kit de iniciación NANO (Set básico para torno de cabezal móvil).

Para la preparación de una máquina para trabajar con refrigeración a través de las herramientas. Ideal para tornos de pequeño diámetro con herramienta de pequeña dimensión.

Material: Acero recubierto (Racores) + Acero inox. AISI-304 (Malla externa) + Teflon (Núcleo interno) + Cobre (arandelas de estanqueidad).



NA-SK-10-00



KIT	KIT COMPOSITION (see drawing)	DESCRIPTION
NA-SK-10-00	Quick coupling fittings:	
	① 4 x NA-QC-01-00	QUICK COUPLING NANO WITH M6x1(M) ON ONE END
	Flexible distribution tubes:	
	② 1 x NA-DT-03-L102-M6	FLEX TUBE OD:6.5 mm L=102 mm M6x1(M)-QUICK CONNECTOR
	③ 1 x NA-DT-03-L152-M6	FLEX TUBE OD:6.5 mm L=152 mm M6x1(M)-QUICK CONNECTOR TUBE
	④ 1 x NA-DT-03-L152-M6	FLEX TUBE OD:6.5 mm L=203 mm M6x1(M)-QUICK CONNECTOR
	⑤ 1 x NA-DT-03-L203-M6	FLEX TUBE OD:6.5 mm L=305 mm M6x1(M)-QUICK CONNECTOR
	Standard coolant distribution block:	
	⑥ 1 x NA-DB-01-02	MANIFOLD 10x10x62mm 4 OUTLETS M6x1(F)+1 INLET M6x1(F)
	Adaptors (Female to Male):	
	⑦ 4 x NA-CA-01-00	ADAPTOR M6x1(F) TO BSPT1/8"(M)
	⑧ 4 x NA-CA-01-06	ADAPTOR M6x1(F) TO M8x1(M)
	⑨ 2 x NA-CA-01-01	ADAPTOR M6x1(F) TO M10x1 KEG(M)
	⑩ 2 x NA-CA-01-05	ADAPTOR M6x1(F) TO M5x0.8(M)
	Spacers (Female to Male):	
	⑪ 1 x NA-CA-03-01	SPACER H:13 mm M6x1(M)-M6x1(F)
	⑫ 1 x NA-CA-03-02	SPACER H:18 mm M6x1(M)-M6x1(F)
	Banjos and banjo bolts:	
	⑬ 1 x NA-CA-04-00	SHORT BANJO M6x1(F) FOR M5 OR M6 BOLT
	⑭ 1 x NA-CA-04-03	LONG CURVED BANJO M6x1(F) FOR M5 OR M6 BOLT
	⑮ 2 x NA-CA-04-04	BANJO BOLT M6x1(M)
	Sealing plugs:	
⑯ 2 x NA-CC-01-00	QUICK CONNECTION FITTING NANO TO SEALING PLUG	
⑰ 4 x NA-CC-01-04	SEALING PLUG M6X1(M)	
Sealing gaskets:		
⑱ 1 x UN-SG-01-00	COPPER WASHER M5 (10 UNITS)	
⑲ 2 x UN-SG-01-01	COPPER WASHER M6 (10 UNITS)	
⑳ 1 x UN-SG-01-02	COPPER WASHER M8 (10 UNITS) AND UNF5/16" (10 UNITS)	
Fastening keys:		
㉑ 2 x NA-FK-01-00	FIXED WRENCH FOR ASSEMBLY NANO PROGRAM. SW8	
Product Case:		
㉒ 1 x UN-KC-10-00	BLACK PLASTIC CASE 35x29.5 cm FOR KIT SCS	

MI-SK-10-00

Starter Kit MICRO (Basic set Swiss-type lathe).

To set up a machine to work with coolant through the tools. Ideal for bigger diameter lathes or with sufficient internal space.

Material: Coated Steel (Fittings) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core) + Copper (sealing gasket).

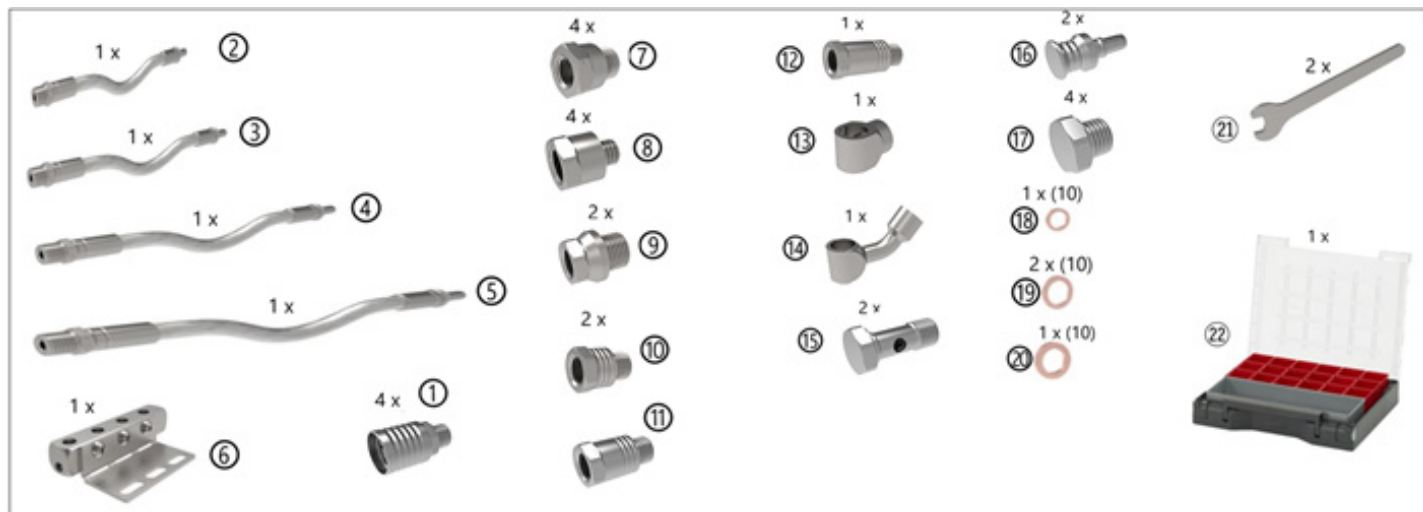
Kit de iniciación MICRO (Set básico para torno de cabezal móvil).

Para la preparación de una máquina para trabajar con refrigeración a través de las herramientas. Ideal para tornos de mayor diámetro o con suficiente espacio interno.

Material: Acero recubierto (Racores) + Acero inox. AISI-304 (Malla externa) + Teflon (Núcleo interno) + Cobre (arandelas de estanqueidad).



MI-SK-10-00



KIT	KIT COMPOSITION (see drawing)	DESCRIPTION
MI-SK-10-00	Quick coupling fittings:	
	① 4 x MI-QC-01-00	QUICK COUPLING MICRO WITH M8x1(M) ON ONE END
	Flexible distribution tubes:	
	② 1 x MI-DT-03-L102-M8	FLEX TUBE OD:8 mm L=102 mm M8x1(M)-QUICK CONNECTOR
	③ 1 x MI-DT-03-L152-M8	FLEX TUBE OD:8 mm L=152 mm M8x1(M)-QUICK CONNECTOR
	④ 1 x MI-DT-03-L203-M8	FLEX TUBE OD:8 mm L=203 mm M8x1(M)-QUICK CONNECTOR
	⑤ 1 x MI-DT-03-L305-M8	FLEX TUBE OD:8 mm L=305 mm M8x1(M)-QUICK CONNECTOR
	Standard coolant distribution block:	
	⑥ 1 x MI-DB-01-00	MANIFOLD 15x15x83 mm 4 OUTLETS M8x1(F)+1 INLET M8x1(F)
	Adaptors (Female to Male):	
	⑦ 4 x MI-CA-01-00	ADAPTOR M8x1(F) TO BSPP1/8"(M)
	⑧ 4 x MI-CA-01-06	ADAPTOR M8x1(F) TO M6x1(M)
	⑨ 2 x MI-CA-01-01	ADAPTOR M8x1(F) TO M10x1(M)
	Spacers (Female to Male):	
	⑩ 1 x MI-CA-03-00	SPACER H:10 mm M8x1(M)-M8x1(F)
	⑪ 1 x MI-CA-03-01	SPACER H:15 mm M8x1(M)-M8x1(F)
	⑫ 1 x MI-CA-03-02	SPACER H:20 mm M8x1(M)-M8x1(F)
	Banjos and banjo bolts:	
	⑬ 1 x MI-CA-04-00	SHORT BANJO M8x1(F) FOR M8 BOLT
	⑭ 1 x MI-CA-04-03	LONG CURVED BANJO M8x1(F) FOR M8 BOLT
	⑮ 2 x MI-CA-04-04	BANJO BOLT M8x1(M)
	Sealing plugs:	
⑯ 2 x MI-CC-01-00	QUICK CONNECTION FITTING MICRO TO SEALING PLUG	
⑰ 4 x MI-CC-01-04	SEALING PLUG M8X1(M)	
Sealing gaskets:		
⑱ 2 x UN-SG-01-02	COPPER WASHER M6 (10 UNITS)	
⑲ 2 x UN-SG-01-02	COPPER WASHER M8 AND UNF5/16" (10 UNITS)	
⑳ 1 x UN-SG-01-03	COPPER WASHER M10 AND BSPP1/8" (10 UNITS)	
Fastening keys:		
㉑ 2 x MI-FK-01-00	FIXED WRENCH FOR ASSEMBLY MICRO PROGRAM. SW11	
Product Case:		
㉒ 1 x UN-KC-10-00	BLACK PLASTIC CASE 35x29.5 cm FOR KIT SCS	

NA-SK-20-00

Starter Kit NANO (Extended set Swiss-type lathe).

To set up a machine to work with coolant through the tools. Ideal for small diameter lathes with small tooling.

Material: Coated Steel (Fittings) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core) + Copper (tubes and sealing gasket).

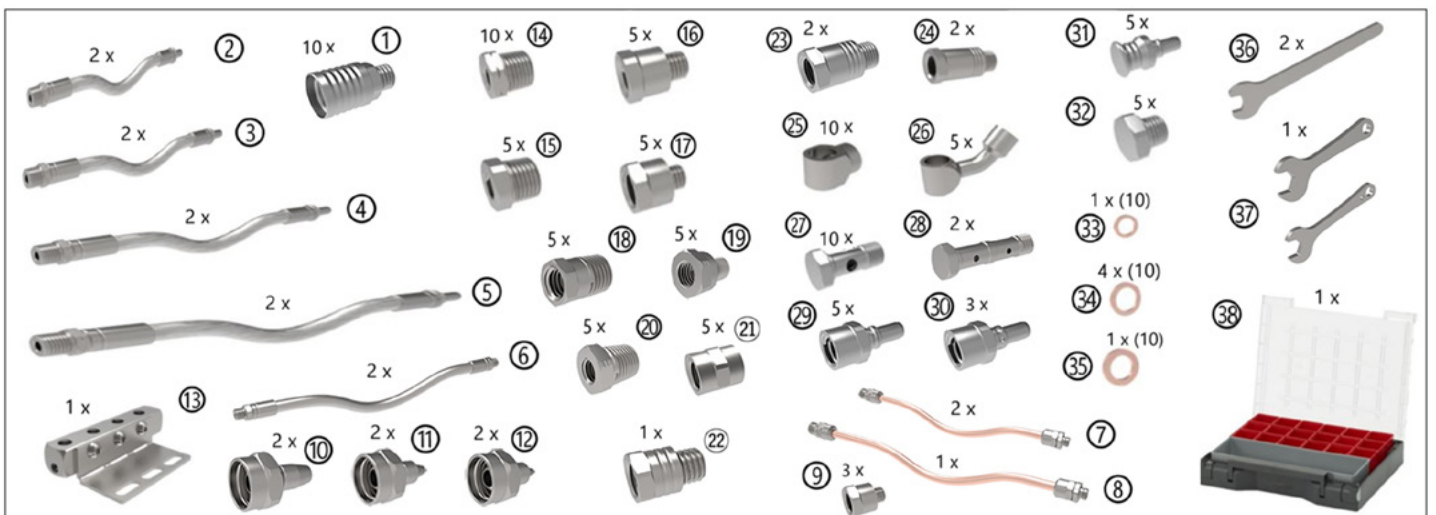
Kit de iniciación NANO (Set extendido para torno de cabezal móvil).

Para la preparación de una máquina para trabajar con refrigeración a través de las herramientas. Ideal para tornos de pequeño diámetro con herramienta de pequeña dimensión.

Material: Acero recubierto (Racores) + Acero inox. AISI-304 (Malla externa) + Teflón (Núcleo interno) + Cobre (tubos y arandelas de estanqueidad).



NA-SK-20-00



KIT	KIT COMPOSITION (see drawing)	DESCRIPTION
NA-SK-20-00	Quick coupling fittings:	
	① 10 x NA-QC-01-00	QUICK COUPLING NANO WITH M6x1(M) ON ONE END
	Flexible distribution tubes:	FLEX TUBE OD:6.5 mm L=102 mm M6x1(M)-QUICK CONNECTOR
	② 2 x NA-DT-03-L102-M6	
	③ 2 x NA-DT-03-L152-M6	FLEX TUBE OD:6.5 mm L=152 mm M6x1(M)-QUICK CONNECTOR
	④ 2 x NA-DT-03-L203-M6	FLEX TUBE OD:6.5 mm L=203 mm M6x1(M)-QUICK CONNECTOR
	⑤ 2 x NA-DT-03-L305-M6	FLEX TUBE OD:6.5 mm L=305 mm M6x1(M)-QUICK CONNECTOR
	⑥ 2 x NA-DT-01-L406-M6	FLEX TUBE OD:6.5 mm L=406 mm M6x1(M) x2
	Copper tube kit OD: 6 mm ID: 4 mm. DECA:	
	⑦ 2 x DE-DT-01-L152-M8	COPPER TUBE OD:6mm L=152 mm M8x1(M) & DECA(M)
	⑧ 1 x DE-DT-01-L203-M8	COPPER TUBE OD:6mm L=203 mm M8x1(M) & DECA(M)
	⑨ 3 x MI-CA-01-06 (assembled in the tubes)	ADAPTOR M8x1(F) TO M6x1(M)
	Coolant nozzles for copper tubes DECA:	
	⑩ 2 x DE-NZ-01-00	STRAIGHT OUTLET NOZZLE ID=3 mm L=9 mm
	⑪ 2 x DE-NZ-01-06	STRAIGHT OUTLET NOZZLE ID=1.5 mm L=9 mm
	⑫ 2 x DE-NZ-01-07	STRAIGHT OUTLET NOZZLE ID=1 mm L=9 mm
	Standard coolant distribution block:	
	⑬ 2 x NA-DB-01-02	MANIFOLD 10x10x62 mm 4 OUTLETS M6x1(F)+1 INLET M6x1(F)
	Adaptors (Female to Male):	
	⑭ 10 x NA-CA-01-00	ADAPTOR M6x1(F) TO BSPT1/8"(M)
	⑮ 5 x NA-CA-01-06	ADAPTOR M6x1(F) TO M8x1(M)
	⑯ 5 x NA-CA-01-01	ADAPTOR M6x1(F) TO M10x1 KEG(M)
	⑰ 5 x NA-CA-01-05	ADAPTOR M6x1(F) TO M5x0.8(M)
	⑱ 5 x NA-CA-01-08	ADAPTOR M6x1(F) TO M8x1 KEG(M)
	⑲ 5 x NA-CA-01-12	ADAPTOR M6x1(F) TO NPT1/16"(M)
	⑳ 5 x NA-CA-01-10	ADAPTOR M6x1(F) TO NPT1/8"(M)
	㉑ 5 x NA-CA-01-03	ADAPTOR M6x1(F) TO M6x1(M)
	Spacers (Female to Male):	
	㉒ 1 x NA-CA-03-00	SPACER H:8 mm M6x1(M)-M6x1(F)
	㉓ 2 x NA-CA-03-01	SPACER H:13 mm M6x1(M)-M6x1(F)
	㉔ 2 x NA-CA-03-02	SPACER H:18 mm M6x1(M)-M6x1(F)
	Banjos and banjo bolts:	
	㉕ 10 x NA-CA-04-00	SHORT BANJO M6x1(F) FOR M5 OR M6 BOLT
	㉖ 5 x NA-CA-04-03	LONG CURVED BANJO M6x1(F) FOR M5 OR M6 BOLT
	㉗ 10 x NA-CA-04-04	BANJO BOLT M6x1(M)
	㉘ 2 x NA-CA-04-05	DOUBLE BANJO BOLT M6x1(M) TO CONNECT 2 BANJOS
	Quick connection fittings:	
	㉙ 5 x NA-CC-01-01	QUICK CONNECTION FITTING NANO TO M6x1(F)
㉚ 3 x NA-CC-01-02	QUICK CONN. FITTING NANO NON-ROTATING TO M6x1(F)	
Sealing plugs:		
㉛ 5 x NA-CC-01-00	QUICK CONNECTION FITTING NANO TO SEALING PLUG	
㉜ 5 x NA-CC-01-04	SEALING PLUG M6x1(M)	
Sealing gaskets:		
㉝ 1 x UN-SG-01-00	COPPER WASHER M5 (10 UNITS)	
㉞ 4 x UN-SG-01-01	COPPER WASHER M6 (10 UNITS)	
㉟ 1 x UN-SG-01-02	COPPER WASHER M8 (10 UNITS) AND UNF5/16" (10 UNITS)	
Fastening keys:		
㊱ 2 x NA-FK-01-00	FIXED WRENCH FOR ASSEMBLY NANO PROGRAM. SW8	
㊲ 1 x DE-FK-01-00	WRENCHES FASTENING 2 HEXAG. DECA PROGRAM. SW8-SW9	
Product Case:		
㊳ 1 x UN-KC-20-00	BLACK PLASTIC CASE 35x29.5 cm FOR KIT SCS	

MI-SK-20-00

Starter Kit MICRO (Extended set Swiss-type lathe).

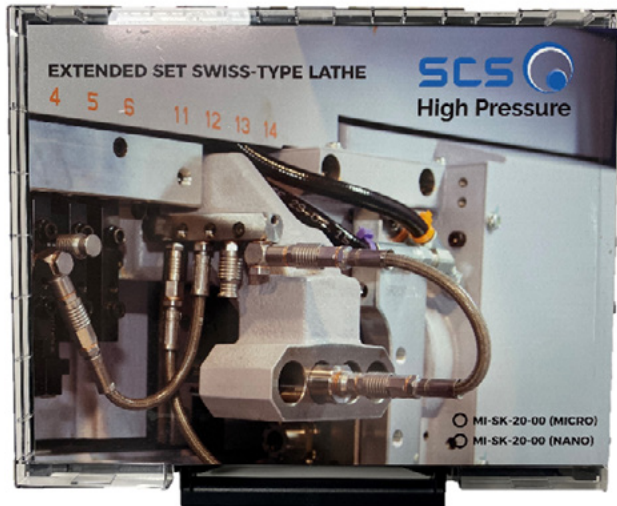
To set up a machine to work with coolant through the tools. Ideal for bigger diameter lathes or with sufficient internal space.

Material: Coated Steel (Fittings) + Stainless Steel AISI-304 (External braiding) + Teflon (Internal core) + Copper (tubes and sealing gasket).

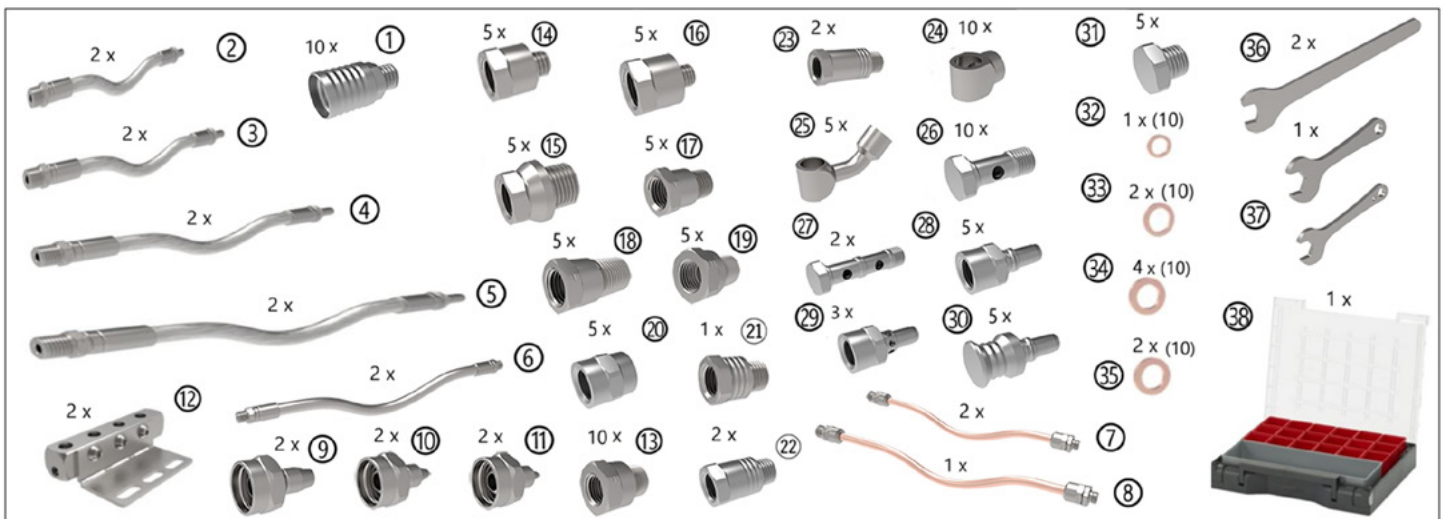
Kit de iniciación MICRO (Set extendido para torno de cabezal móvil).

Para la preparación de una máquina para trabajar con refrigeración a través de las herramientas. Ideal para tornos de mayor diámetro o con suficiente espacio interno.

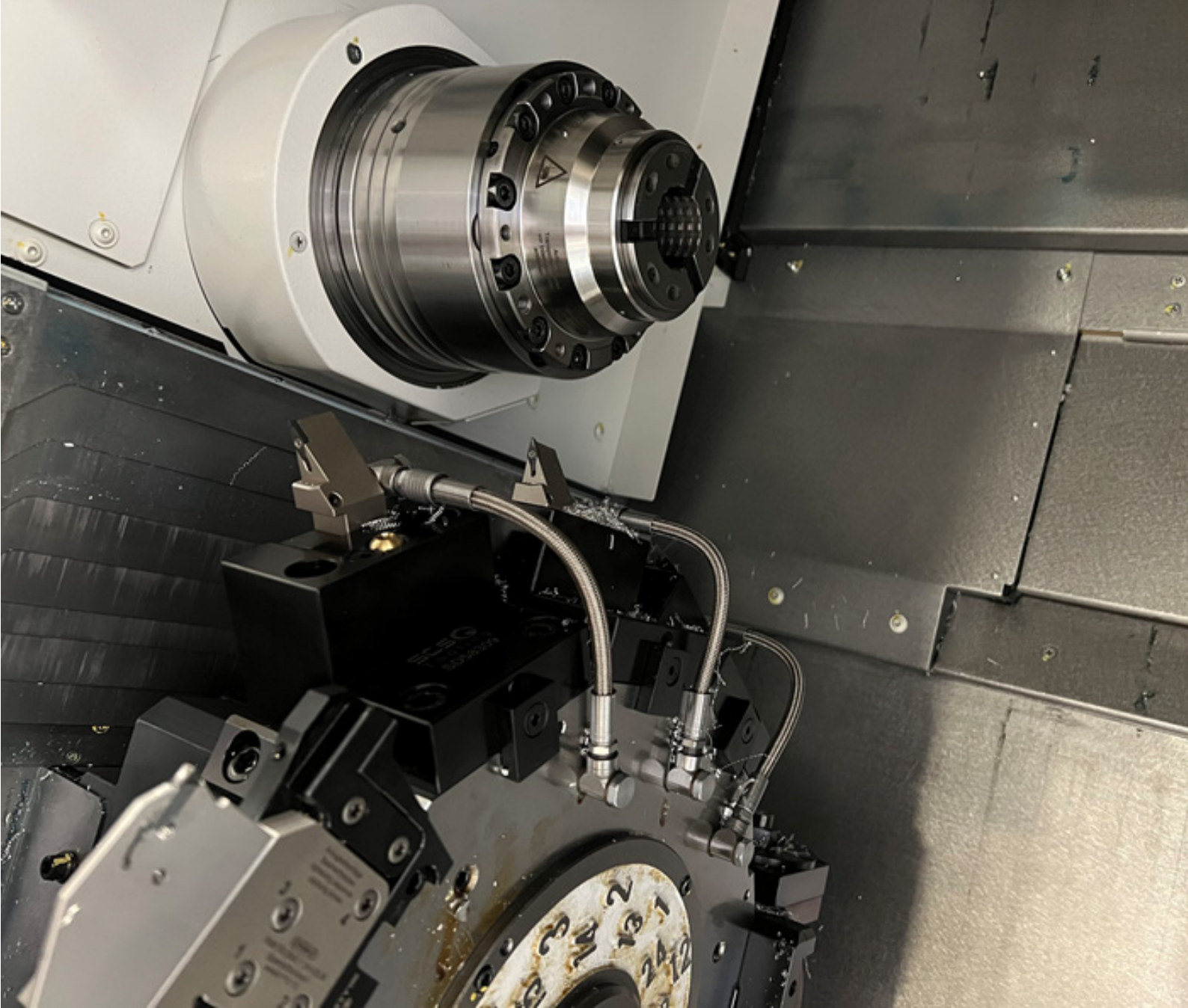
Material: Acero recubierto (Racores) + Acero inox. AISI-304 (Malla externa) + Teflon (Núcleo interno) + Cobre (tubos y arandelas de estanqueidad).



MI-SK-20-00



KIT	KIT COMPOSITION (see drawing)	DESCRIPTION
NA-SK-20-00	Quick coupling fittings:	
	① 10 x MI-QC-01-00	QUICK COUPLING MICRO WITH M8x1(M) ON ONE END
	Flexible distribution tubes:	
	② 2 x MI-DT-03-L102-M8	FLEX TUBE OD:8 mm L=102 mm M8x1(M)-QUICK CONNECTOR
	③ 2 x MI-DT-03-L152-M8	FLEX TUBE OD:8 mm L=152 mm M8x1(M)-QUICK CONNECTOR
	④ 2 x MI-DT-03-L203-M8	FLEX TUBE OD:8 mm L=203 mm M8x1(M)-QUICK CONNECTOR
	⑤ 2 x MI-DT-03-L305-M8	FLEX TUBE OD:8 mm L=305 mm M8x1(M)-QUICK CONNECTOR
	⑥ 2 x MI-DT-01-L406-M8	
	Copper tube kit OD: 6 mm ID: 4 mm. DECA:	FLEX TUBE OD:8 mm L=406 mm M8x1(M) x2
	⑦ 2 x DE-DT-01-L152-M8	COPPER TUBE OD:6mm L=152 mm M8x1(M) & DECA(M)
	⑧ 1 x DE-DT-01-L203-M8	COPPER TUBE OD:6mm L=203 mm M8x1(M) & DECA(M)
	Coolant nozzles for copper tubes DECA:	
	⑨ 2 x DE-NZ-01-00	STRAIGHT OUTLET NOZZLE ID=3 mm L=9 mm
	⑩ 2 x DE-NZ-01-06	STRAIGHT OUTLET NOZZLE ID=1.5 mm L=9 mm
	⑪ 2 x DE-NZ-01-07	STRAIGHT OUTLET NOZZLE ID=1 mm L=9 mm
	Standard coolant distribution block:	
	⑫ 2 x MI-DB-01-00	MANIFOLD 15x15x83 mm 4 OUTLETS M8x1(F)+1 INLET M8x1(F)
	Adaptors (Female to Male):	
	⑬ 10 x MI-CA-01-00	ADAPTOR M8x1(F) TO BSPP1/8"(M)
	⑭ 5 x MI-CA-01-06	ADAPTOR M8x1(F) TO M6x1(M)
	⑮ 5 x MI-CA-01-01	ADAPTOR M8x1(F) TO M10x1(M)
	⑯ 5 x MI-CA-01-05	ADAPTOR M8x1(F) TO M5x0.8(M)
	⑰ 5 x MI-CA-01-08	ADAPTOR M8x1(F) TO M8x1 KEG(M)
	⑱ 5 x MI-CA-01-12	ADAPTOR M8x1(F) TO BSPT1/8"(M)
	⑲ 5 x MI-CA-01-16	ADAPTOR M8x1(F) TO NPT1/8"(M)
	⑳ 5 x MI-CA-01-03	ADAPTOR M8x1(F) TO M8x1(M)
	Spacers (Female to Male):	
	㉑ 1 x MI-CA-03-00	SPACER H:10 mm M8x1(M)-M8x1(F)
	㉒ 2 x MI-CA-03-01	SPACER H:15 mm M8x1(M)-M8x1(F)
	㉓ 2 x MI-CA-03-02	SPACER H:20 mm M8x1(M)-M8x1(F)
	Banjos and banjo bolts:	
	㉔ 10 x MI-CA-04-00	SHORT BANJO M8x1(F) FOR M8 BOLT
	㉕ 5 x MI-CA-04-03	LONG CURVED BANJO M8x1(F) FOR M8 BOLT
	㉖ 10 x MI-CA-04-04	BANJO BOLT M8x1(M)
	㉗ 2 x MI-CA-04-05	DOUBLE BANJO BOLT M8x1(M) TO CONNECT 2 BANJOS
	Quick connection fittings:	
	㉘ 5 x MI-CC-01-01	QUICK CONNECTION FITTING MICRO TO M8x1(F)
	㉙ 3 x MI-CC-01-02	QUICK CONN. FITTING MICRO NON-ROTATING TO M8x1(F)
Sealing plugs:		
㉚ 5 x MI-CC-01-00	QUICK CONNECTION FITTING MICRO TO SEALING PLUG	
㉛ 5 x MI-CC-01-04	SEALING PLUG M8x1(M)	
Sealing gaskets:		
㉜ 1 x UN-SG-01-00	COPPER WASHER M5 (10 UNITS)	
㉝ 2 x UN-SG-01-01	COPPER WASHER M8 (10 UNITS)	
㉞ 4 x UN-SG-01-02	COPPER WASHER M8 (10 UNITS) AND UNF5/16" (10 UNITS)	
㉟ 2 x UN-SG-01-02	COPPER WASHER M8 (10 UNITS) AND UNF5/16" (10 UNITS)	
Fastening keys:		
㊱ 2 x MI-FK-01-00	FIXED WRENCH FOR ASSEMBLY MICRO PROGRAM. SW8	
㊲ 1 x DE-FK-01-00	WRENCHES FASTENING 2 HEXAG. DECA PROGRAM. SW8-SW9	
Product Case:		
㊳ 1 x UN-KC-20-00	BLACK PLASTIC CASE 35x29.5 cm FOR KIT SCS	



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