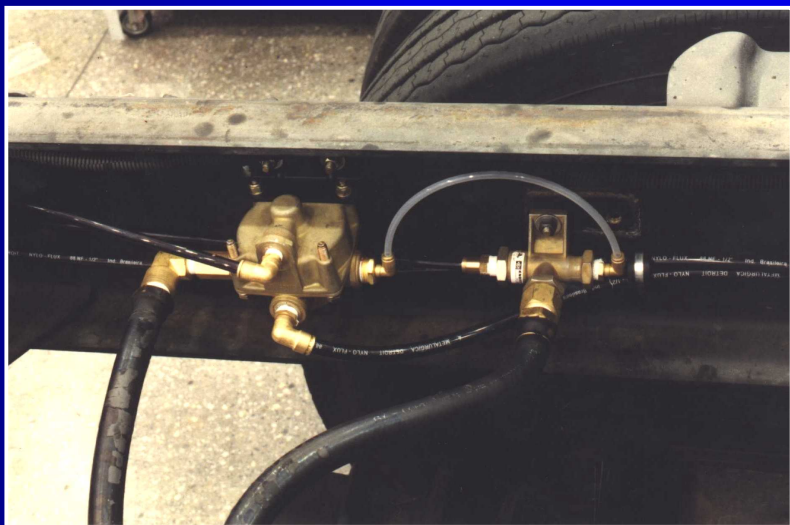
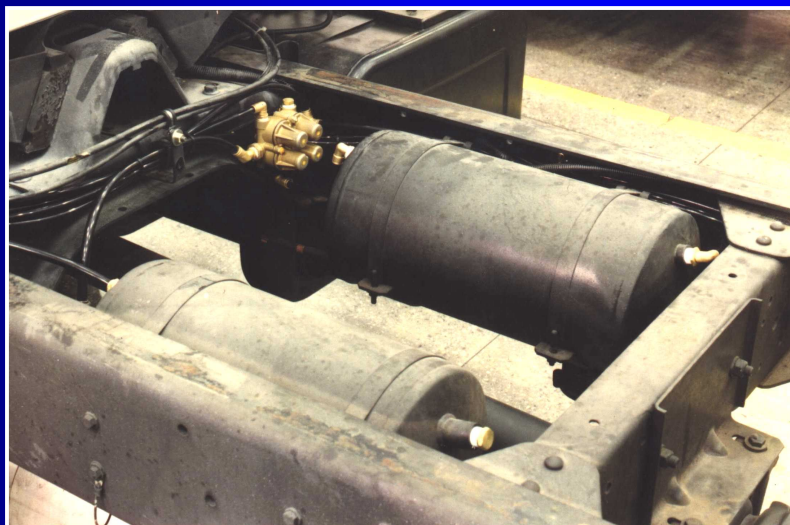
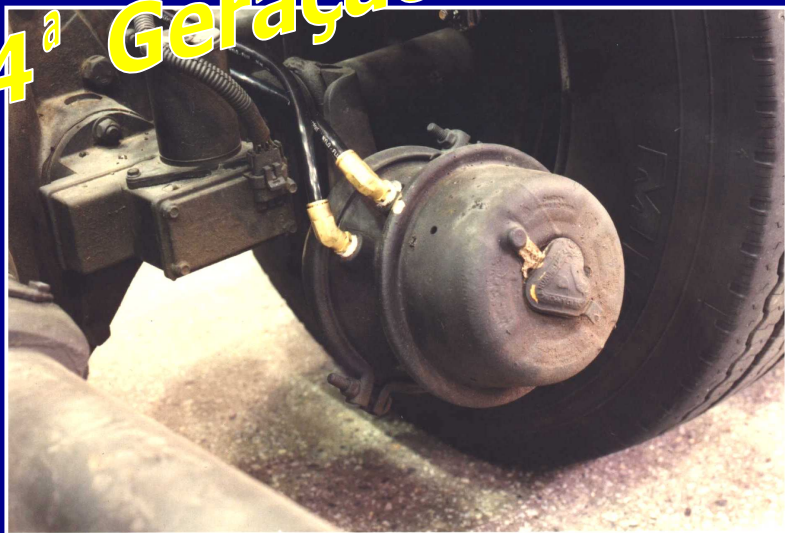


4ª Geração



# CONEXÕES

PUSH-IN  
"DOT"



### PUSH-IN® DOT

As conexões Push-in® série DOT da Detroit são compactas, leves e extremamente resistentes ao impacto. Foram especialmente desenvolvidas para aplicações em sistemas de freio a ar. Seu design do tipo "Push-to-connect" permite a montagem do tubo de modo bastante simples, sem o uso de ferramentas. Esta 4ª geração de conexões não oferece risco a soltura do tubo devido ao novo design do conjunto corpo, insert, luva e o'ring, promovendo uma melhor fixação em condições de extrema curvatura do tubo. A nova luva evita a entrada de partículas externas que poderiam contaminar o sistema.

Oferece economia de tempo na instalação e manutenção, devido à praticidade da conexão e desconexão do tubo. Permite economia de até 75% em relação ao tempo de montagem de conexões tipo standard com luva, insert e flange. As conexões Push-in® DOT não requerem o uso de ferramentas para montagem e desmontagem do tubo. São indicadas para instalações onde é importante montagem, desmontagem e remontagem rápida.

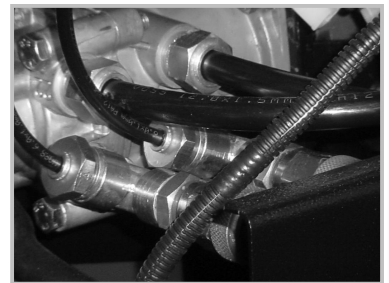
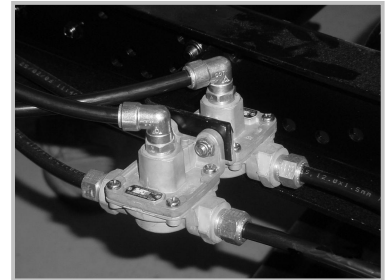
#### Características e Benefícios

- Reduz os custos de montagem e manutenção, pois oferece economia de até 75% em relação ao tempo de montagem de conexões convencionais com luva, insert e flange.
- O' rings em Buna-N lubrificados, garantindo uma vedação rápida e segura.
- Cotovelos e tees em latão forjado. Leves, compactos e extremamente resistentes.
- Atende aos requisitos da DOT FMVSS 571.106 edição 20/Dez/2004.
- Não requer o uso de ferramentas especiais para montagem e desmontagem do tubo.
- Vedante á base de PTFE pré-aplicado em todas as roscas cônicas macho. Elimina o uso de pastas ou fitas que podem contaminar o sistema.
- Conectores orientáveis facilitam a montagem em locais de difícil acesso.
- Fácil identificação. Todas as luvas são marcadas, identificando o diâmetro externo do tubo.
- Conexões compactas com poucos componentes.
- Permitem várias remontagens.
- Novo design da luva garante menor força de inserção do tubo com melhor agarre.
- Linha completa de conectores com modelos tipo reto, tees e cotovelos.

#### Aplicações

Push-in® DOT é recomendado para o uso em todos os sistemas de freio a ar de ônibus e caminhões e em sistemas secundários, tais como, acionamento de janelas, espelhos, assentos, limpadores de pára-brisas, buzinas, controles de temperatura, alavanca de câmbio, travamento de portas, etc.

Conforme especificado na DOT FMVSS 571.106 edição 20/Dez/2004, as conexões Push-in® DOT não podem ser utilizadas para ligações de tubos entre a carreta e o reboque.





### Informações técnicas

- Fluidos: Ar comprimido
- Pressão de trabalho\*: 29.5" Hg de vácuo a 300 psig (750 mmHg a 20.7 bar)
- Temperatura de trabalho\*\*: -23 °C a 93 °C (-10 °F a 200 °F)

\* Limitado ao diâmetro externo do tubo, consulte a página 07 para outros valores de pressão.

\*\* Veja abaixo opções para altas temperaturas.

### Materiais

As conexões Push-in® DOT estão disponíveis em latão. Todas as conexões com perfis retos são usinadas a partir de barras trefiladas. Perfis angulares tais como tees e cotovelos, a partir de corpos forjados. Os materiais para sua fabricação estão a seguir apresentados.

- Corpo (perfis retos): Barras trefiladas de latão com alívio de tensões internas ASTM B-16 C36000 (SAE CA360)
- Corpo (perfis angulares): Latão forjado ASTM B-283 C37700 (SAE CA377)
- Luvas: Barras trefiladas de latão com alívio de tensões internas ASTM B-16 C36000 (SAE CA360)
- Insert de reforço: Latão SAE CA260
- Capa plástica: Polietileno de alta densidade
- Vedação da rosca: Loctite Vibra Seal 516 (Pré-aplicado em todas as roscas cônicas macho)
- O-Rings: Buna-N 70 Dureza Shore A

### Notas

Conexões com rosca 10-32 UNF e M5x0,8 são fornecidas com anel de Buna-N. A temperatura máxima de serviço é 93°C (200°F).

### Opções para altas temperaturas

Conexões Push-in® DOT com anéis de Viton® podem ser fornecidas sob consulta para aplicações que exijam maior temperatura de trabalho e melhor resistência química. Para pedir conexões com anel de Viton®, adicione a letra "V" no código do produto. **Exemplo:** Para pedir conector DQ68DOT0808 com anel de Viton®, o novo código será DQ68VDOT0808.

A faixa de temperatura de conexões com anel de Viton® é de -20 °C a 180 °C (0 °F a 350 °F).

### Atenção

As conexões Push-in® DOT da Detroit foram desenvolvidas para aplicações em sistemas de freio a ar. Não utilize estes produtos onde as condições de pressão e temperatura sejam superiores às especificadas neste catálogo. Para utilização com outros fluidos ou em outras condições, consulte sempre a Detroit.

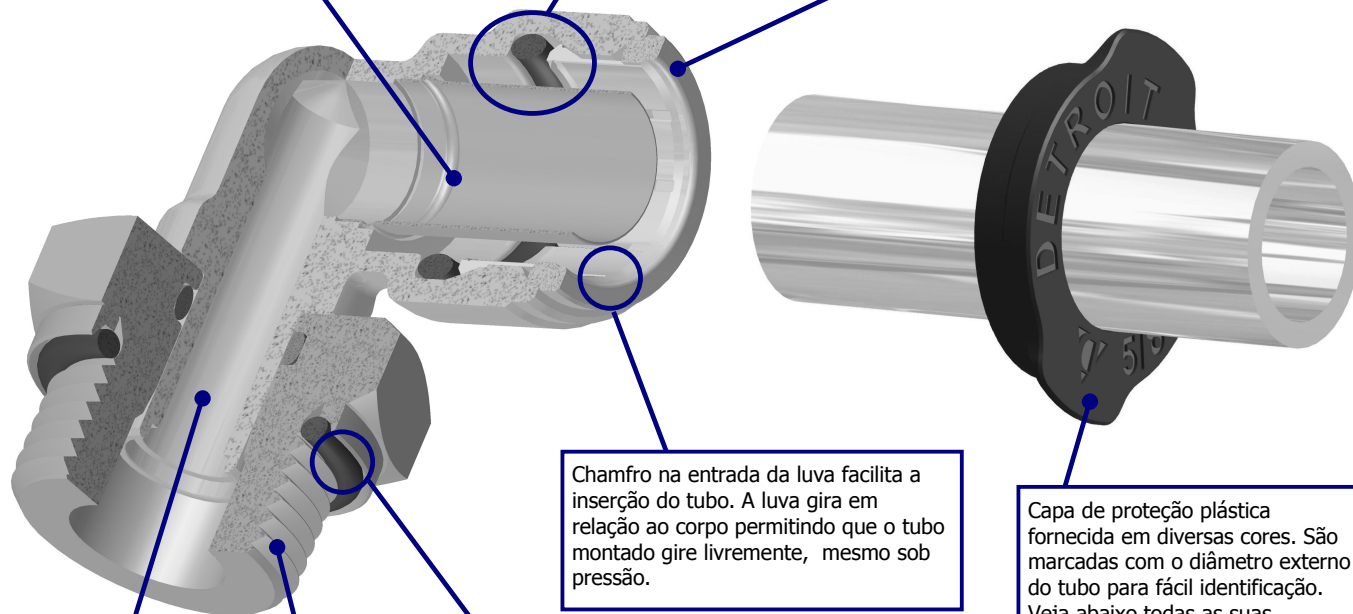


## CONEXÕES PUSH-IN®

Insert (suporte do tubo) rígido, garante que a inserção do tubo seja fácil e rápida. O novo design mantém o tubo preso com segurança e evita seu colapso em casos de extrema curvatura do tubo.

O ring lubrificado de Buna-N (borracha nitrílica) com adequada interferência entre o tubo e o corpo da conexão minimiza as forças de inserção e extração do tubo. Promove ainda vedação extra em casos de extrema curvatura do tubo.

A função da luva é prender o tubo com segurança evitando marcas e riscos longitudinais. O novo design da luva da 4ª Geração evita a entrada de partículas externas que podem contaminar o sistema e promove uma melhor fixação em situações de extrema curvatura do tubo. Todas as luvas são marcadas com o diâmetro externo do tubo.



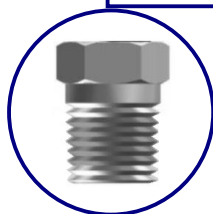
Maior orifício de passagem.

Roscas métricas paralelas com alojamento e o ring de Buna-N previnem vazamentos e dano ao o ring.

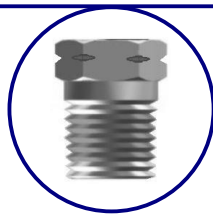
Chamfro na entrada da luva facilita a inserção do tubo. A luva gira em relação ao corpo permitindo que o tubo montado gire livremente, mesmo sob pressão.

Capa de proteção plástica fornecida em diversas cores. São marcadas com o diâmetro externo do tubo para fácil identificação. Veja abaixo todas as suas vantagens.

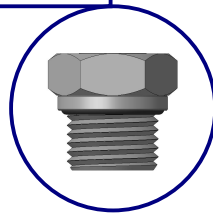
Várias opções de extremidades. Roscas macho cônicas com vedante pré-aplicado.



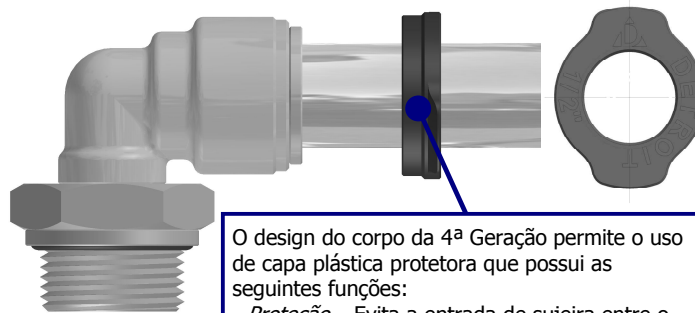
Rosca Cônica  
NPTF: SAE J476a



Rosca Cônica  
BSPT: ISO 7/1  
BS 21



Rosca Paralela  
Métrica: DIN 3852



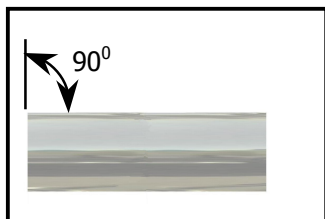
### Capa plástica de proteção

O design do corpo da 4ª Geração permite o uso de capa plástica protetora que possui as seguintes funções:

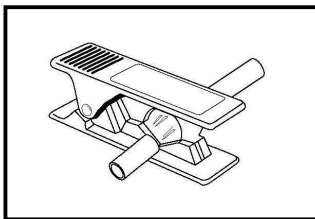
- *Proteção* – Evita a entrada de sujeira entre o tubo e a luva e entre a luva e corpo evitando o travamento.
- *Segurança* – Elimina o risco de uma desconexão acidental do tubo, uma vez que a luva fica inacessível.
- *Identificação* – As cores disponíveis permitem a identificação das linhas de fluido. Todas as capas são marcadas com o diâmetro externo do tubo.

São fabricadas em polietileno de alta densidade e devem ser solicitadas separadamente. Veja pág. 08 para informações de como especificar.

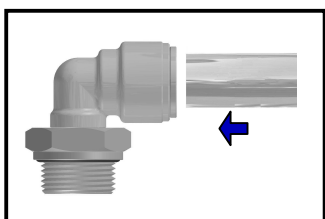
## Instruções de montagem



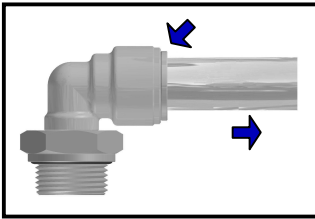
**1.** Corte o tubo perpendicularmente (tolerância de  $\pm 7^\circ$ ), tomando o cuidado para não danificá-lo externamente. O tubo deve estar livre de rebarbas.



**1.1** Use o cortador de tubos plásticos da Detroit código 307FP.



**2.** Introduza o tubo até que o mesmo encoste no fundo da conexão. Puxe o tubo para garantir o cravamento da luva. Pronto! O sistema pode ser pressurizado.

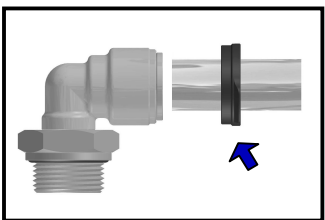


**3.** Para desconectar primeiramente libere o ar do sistema, então pressione a luva na direção da conexão e puxe o tubo, mantendo a luva pressionada.

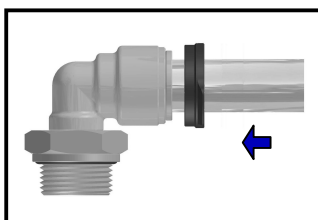
*Importante!* Para reutilizar o tubo, corte sempre a ponta previamente cravada.

## Instrução de montagem adicional: Capa plástica de proteção

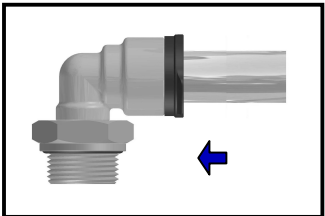
Antes de iniciar as etapas de montagem, o tubo deve estar cortado e livre de rebarbas.



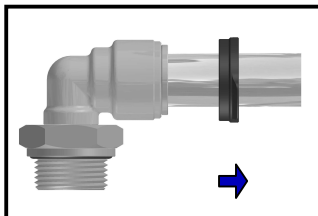
**1.** Coloque a capa plástica no tubo.



**2.** Introduza o tubo até que o mesmo encoste no fundo da conexão. Puxe o tubo para garantir o cravamento da luva.

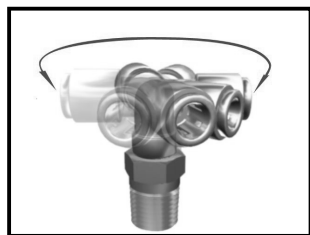


**3.** Empurre a capa plástica até que encoste no corpo.



**4.** Para desconectar – Libere o ar do sistema. Primeiro solte a capa e então libere o tubo de acordo com a etapa 3 acima.

## Versatilidade

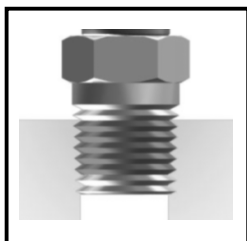


A linha de conexões Push-in® DOT da Detroit possui tees e cotovelos com roscas macho orientáveis que permitem girar a conexão 360° para a instalação em lugares de difícil acesso e para posicionamentos precisos. Um anel de Buna-N garante a vedação entre o corpo da conexão e o plug roscado.

*Atenção:* As conexões orientáveis foram desenvolvidas apenas para posicionamento, e não devem ser usadas em sistemas com giro contínuo.



## Autovedação



Todas as rosca macho cônicas são revestidas com um composto especial à base de PTFE denominado Loctite Vibra Seal 516, proporcionando uma perfeita vedação, redução do tempo de montagem, bem como dos custos de mão-de-obra. Elimina o uso de pastas ou fitas que podem contaminar o sistema.

## Roscas - Normas

- NPTF (National Standard Pipe Taper Fuel and Oil): SAE J476a (ASME B1.20.3)
- Macho BSPT / Fêmea BSPP: ISO 7/1 (BS 21)
- Métrica: DIN 3852

Outros tipos de extremidades rosqueadas podem ser disponibilizadas sem qualquer limitação, sob consulta prévia.

## Torque de aperto recomendado

- Roscas cônicas NPTF e BSPT

Os torques para roscas BSPT e NPTF são mostrados na tabela ao lado. Primeiramente aperte a conexão com a mão, e em seguida, aperte conforme o torque especificado.

Para conexões com rosca métrica M5x0.8 e rosca 10-32 UNF, após o aperto manual, aperte mais 1/16 de volta com a chave.

NPTF e BSPT	Torque ft.lbs (N.m)
1/8"	5.0 - 6.5 (6.9 - 8.8)
1/4"	8.7 - 10.1 (11.8 - 13.7)
3/8"	15.9 - 17.3 (21.6 - 23.5)
1/2"	20.2 - 21.7 (27.4 - 29.4)

- Roscas Métricas Paralelas

A rosca métrica paralela deve ser rosçada diretamente na linha sem nenhuma preparação adicional. Os valores de torque necessários são:

Rosca Métrica	Torque Máximo
M10x1.0	18 Nm
M12x1.5	24 Nm
M14x1.5	28 Nm
M16x1.5	35 Nm
M22x1.5	40 Nm

## Informações para pedido

Para especificar conexões Push-in® DOT simplesmente utilize os códigos que encontram-se nas tabelas das páginas seguintes.

## Conexões com configurações especiais

Conexões com configurações especiais podem ser fornecidas. Envie um desenho ou croqui com a quantidade requerida que estaremos preparando uma proposta o mais breve possível.

**Tubos recomendados para utilização com conexões Push-in® DOT**

- SAE J844 (Tubo em polegadas)
- DIN 74324 (Tubo Métrico)
- SAE J1394 (Tubo Metrico)

**Tubo de Nylon (Poliamida) conforme SAE J844**

DIÂMETRO EXTERNO NOMINAL DO TUBO D.E. (pol)	TOLERÂNCIA DO DIÂMETRO EXTERNO (mm)	DIÂMETRO INTERNO NOMINAL DO TUBO D.I. (mm)	PRESSÃO MÁX. DE TRABALHO a 24 °C (75 °F) (psig)	PRESSÃO MÍN. DE RUPTURA a 24 °C (75 °F) (psig)
1/4	+/- 0.08	4.32	300	1200
5/16	+/- 0.11	5.89	250	1000
3/8	+/- 0.11	6.38	350	1400
1/2	+/- 0.13	9.55	237	950
5/8	+/- 0.13	11.20	225	900
3/4	+/- 0.13	14.38	200	800

**Tubo de Nylon (Poliamida) conforme DIN 74324**

DIÂMETRO EXTERNO NOMINAL DO TUBO D.E. (mm)	TOLERÂNCIA DO DIÂMETRO EXTERNO (mm)	DIÂMETRO INTERNO NOMINAL DO TUBO D.I. (mm)	TOLERÂNCIA DO DIÂMETRO INTERNO (mm)	PRESSÃO MÁX. DE TRABALHO a 23 °C (73 °F) (bar)	PRESSÃO MÍN. DE RUPTURA a 23 °C (73 °F) (bar)
4	+/- 0.10	2.0	+/- 0.10	36	108
6	+/- 0.10	4.0	+/- 0.10	22	66
8	+/- 0.10	6.0	+/- 0.10	19	57
10	+/- 0.12	7.5	+/- 0.10	19	57
12	+/- 0.15	9.0	+/- 0.10	19	57
15	+/- 0.15	12.0	+/- 0.10	15	45
16	+/- 0.15	12.0	+/- 0.15	19	57

**Tubo de Nylon (Poliamida) conforme SAE J1394**

DIÂMETRO EXTERNO NOMINAL DO TUBO D.E. (mm)	TOLERÂNCIA DO DIÂMETRO EXTERNO (mm)	DIÂMETRO INTERNO NOMINAL DO TUBO D.I. (mm)	TOLERÂNCIA DO DIÂMETRO INTERNO (mm)	PRESSÃO MÁX. DE TRABALHO a 23 °C (73 °F) (bar)	PRESSÃO MÍN. DE RUPTURA a 23 °C (73 °F) (bar)
6	+/- 0.10	4.0	+/- 0.10	22	66
8	+/- 0.10	6.0	+/- 0.10	19	57
12	+/- 0.15	9.0	+/- 0.15	19	57
16	+/- 0.15	12.0	+/- 0.15	19	57



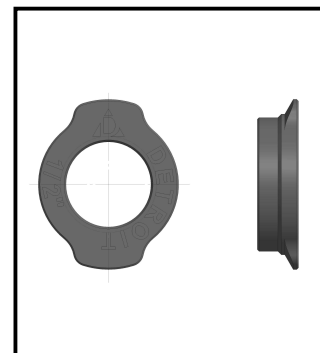
## Dimensões

As dimensões em milímetros servem apenas como referência e estão sujeitas a modificações sem prévio aviso. Selecione um código para pedido.

### Modelo TSDOT

Capa de proteção

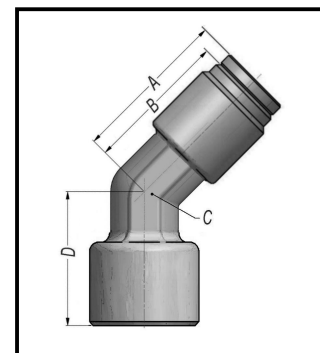
Código	Tubo D.E.	Cores disponíveis
TSDOT04--	1/4"	Adicione a cor após o código.
TSDOT06--	3/8"	Exemplo: TSDOT04BL
TSDOT08--	1/2"	BL - Azul
TSDOT12--	3/4"	YL - Amarelo
TSDOTM6--	6 mm	OR - Laranja
TSDOTM8--	8 mm	GN - Verde
TSDOTM12--	12 mm	RD - Vermelho
TSDOTM16--	16 mm	BK - Preto



### Modelo DQ53DOT

Cotovelo fêmea 45°

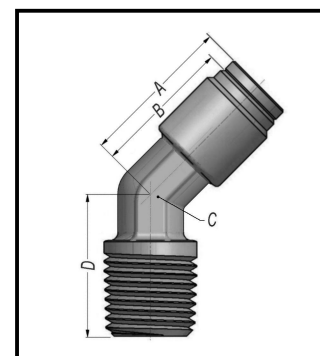
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ53DOT0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	9,52	3/8	18,5	0,728
DQ53DOT04M12		M12x1.5	22,5	0,886	20,5	0,807	12,7	1/2	22,5	0,886



### Modelo DQ54DOT

Cotovelo macho 45°

Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ54DOT0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	17,0	0,669
DQ54DOT0404		1/4" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	22,0	0,866
DQ54DOT0406		3/8" NPTF	23,0	0,906	21,0	0,827	12,7	1/2	22,5	0,886
DQ54DOT0602	3/8"	1/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	20,0	0,787
DQ54DOT0604		1/4" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	23,0	0,906
DQ54DOT0606		3/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	22,5	0,886
DQ54DOT0608	1/2"	1/2" NPTF	24,5	0,965	22,5	0,886	17,5	11/16	31,0	1,220
DQ54DOT0804		1/4" NPTF	29,0	1,142	27,0	1,063	15,9	5/8	24,0	0,945
DQ54DOT0806		3/8" NPTF	29,0	1,142	27,0	1,063	15,9	5/8	24,0	0,945
DQ54DOT0808	5/8"	1/2" NPTF	29,0	1,142	27,0	1,063	19,0	3/4	31,0	1,220
DQ54DOT1006		3/8" NPTF	31,0	1,220	29,0	1,142	19,0	3/4	26,0	1,024
DQ54DOT1008		1/2" NPTF	30,8	1,213	28,8	1,134	19,0	3/4	32,8	1,291



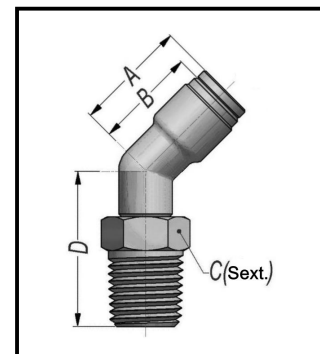




**Modelo DQ54DOTS**

Cotovelo macho 45° orientável

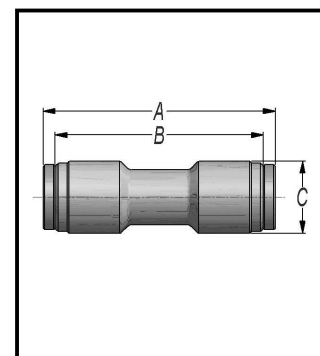
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ54DOTS0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	11,1	7/16	23,0	0,906
DQ54DOTS0404		1/4" NPTF	23,0	0,906	21,0	0,827	14,3	9/16	29,0	1,142
DQ54DOTS0602	3/8"	1/8" NPTF	24,5	0,965	22,5	0,886	11,1	7/16	23,0	0,906
DQ54DOTS0604		3/8" NPTF	24,5	0,965	22,5	0,886	14,3	9/16	31,0	1,220
DQ54DOTS0804	1/2"	1/4" NPTF	29,0	1,142	27,0	1,063	14,3	9/16	32,5	1,280
DQ54DOTS0806		3/8" NPTF	29,0	1,142	27,0	1,063	17,5	11/16	32,5	1,280
DQ54DOTS0808		1/2" NPTF	29,0	1,142	27,0	1,063	22,2	7/8	37,5	1,476
DQ54DOTS1008	5/8"	1/2" NPTF	31,0	1,220	29,0	1,142	22,2	7/8	40,5	1,594
DQ54DOTS1208	3/4"	1/2" NPTF	33,0	1,299	31,0	1,220	22,2	7/8	42,0	1,654
DQ54DOTS1212		3/4" NPTF	33,0	1,299	31,0	1,220	27,0	1.1/16	43,5	1,713



**Modelo DQ62DOT / MDQ62DOT**

União

Código	Tubo D.E.	A		B		C	
		(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ62DOT5/32	5/32"	35,8	1,409	31,8	1,252	9,5	0,374
DQ62DOT03	3/16"	36,0	1,417	32,0	1,260	9,5	0,374
DQ62DOT04	1/4"	41,0	1,614	37,0	1,457	12,0	0,472
DQ62DOT05	5/16"	42,5	1,673	38,5	1,516	13,5	0,531
DQ62DOT06	3/8"	42,5	1,673	38,5	1,516	15,0	0,591
DQ62DOT08	1/2"	46,5	1,831	42,5	1,673	19,0	0,750
DQ62DOT10	5/8"	47,6	1,874	43,6	1,717	23,8	0,937
MDQ62DOT4	4 mm	35,3	1,390	31,3	1,232	9,5	0,374
MDQ62DOT6	6 mm	41,0	1,614	37,0	1,457	12,0	0,472
MDQ62DOT8	8 mm	42,5	1,673	38,5	1,516	13,5	0,531
MDQ62DOT10	10 mm	43,5	1,713	39,5	1,555	15,9	0,626
MDQ62DOT12	12 mm	46,5	1,831	42,5	1,673	19,0	0,750
MDQ62DOT15	15 mm	47,6	1,874	43,6	1,717	23,8	0,937
MDQ62DOT16	16 mm	47,6	1,874	43,6	1,717	23,8	0,937

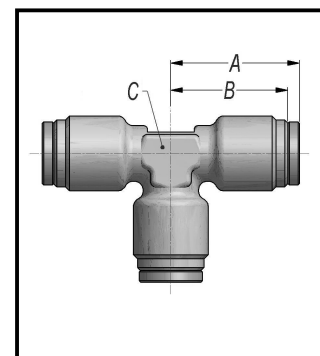




**Modelo DQ64DOT / MDQ64DOT**

Tee união

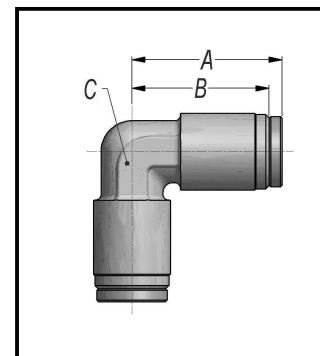
Código	Tubo D.E.	A		B		C	
		(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ64DOT5/32	5/32"	19,5	0,768	17,5	0,689	7,9	5/16
DQ64DOT03	3/16"	20,0	0,787	18,0	0,709	9,5	3/8
DQ64DOT04	1/4"	23,0	0,906	21,0	0,827	9,5	3/8
DQ64DOT05	5/16"	24,5	0,965	22,5	0,886	11,1	7/16
DQ64DOT06	3/8"	24,5	0,965	22,5	0,886	12,7	1/2
DQ64DOT08	1/2"	29,0	1,142	27,0	1,063	15,9	5/8
MDQ64DOT4	4 mm	19,5	0,768	17,5	0,689	7,9	5/16
MDQ64DOT6	6 mm	23,0	0,906	21,0	0,827	9,5	3/8
MDQ64DOT8	8 mm	24,5	0,965	22,5	0,886	11,1	7/16
MDQ64DOT10	10 mm	26,0	1,024	24,0	0,945	12,7	1/2
MDQ64DOT12	12 mm	29,0	1,142	27,0	1,063	15,9	5/8



**Modelo DQ65DOT / MDQ65DOT**

Cotovelo união

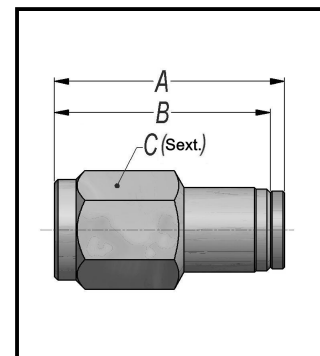
Código	Tubo D.E.	A		B		C	
		(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ65DOT5/32	5/32"	19,5	0,768	17,5	0,689	7,9	5/16
DQ65DOT03	3/16"	20,0	0,787	18,0	0,709	9,5	3/8
DQ65DOT04	1/4"	23,0	0,906	21,0	0,827	9,5	3/8
DQ65DOT05	5/16"	24,5	0,965	22,5	0,886	11,1	7/16
DQ65DOT06	3/8"	24,5	0,965	22,5	0,886	12,7	1/2
DQ65DOT08	1/2"	29,0	1,142	27,0	1,063	15,9	5/8
MDQ65DOT6	6 mm	23,0	0,906	21,0	0,827	9,5	3/8
MDQ65DOT8	8 mm	24,5	0,965	22,5	0,886	11,0	0,433
MDQ65DOT10	10 mm	26,0	1,024	24,0	0,945	12,7	1/2
MDQ65DOT12	12 mm	29,0	1,142	27,0	1,063	15,9	5/8



**Modelo DQ66DOT**

Conector fêmea

Código	Tubo D.E.	Rosca	A		B		C	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ66DOT5/3202	5/32"	1/8" NPTF	29,5	1,161	27,5	1,083	14,3	9/16
DQ66DOT0302	3/16"	1/8" NPTF	30,0	1,181	28,0	1,102	14,3	9/16
DQ66DOT0402	1/4"	1/8" NPTF	32,0	1,260	30,0	1,181	14,3	9/16
DQ66DOT0404		1/4" NPTF	38,0	1,496	36,0	1,417	19,0	3/4
DQ66DOT04M12		M12x1.5	36,0	1,417	34,0	1,339	17,0	0,669
DQ66DOT0502	5/16"	1/8" NPTF	31,5	1,240	29,5	1,161	14,3	9/16
DQ66DOT0604	3/8"	1/4" NPTF	39,0	1,535	37,0	1,457	19,0	3/4
DQ66DOT0606		3/8" NPTF	41,0	1,614	39,0	1,535	22,2	7/8
DQ66DOT0608		1/2" NPTF	46,5	1,831	44,5	1,752	28,6	1.1/8
DQ66DOT0804	1/2"	1/4" NPTF	41,0	1,614	39,0	1,535	20,6	13/16
DQ66DOT0806		3/8" NPTF	41,0	1,614	39,0	1,535	22,2	7/8
DQ66DOT0808		1/2" NPTF	46,5	1,831	44,5	1,752	28,6	1.1/8

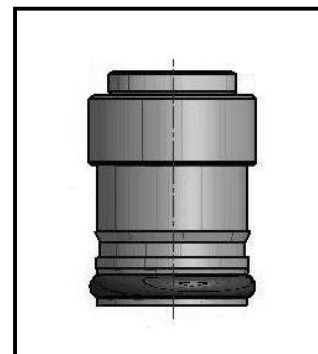




**Modelo DQ688DOT**

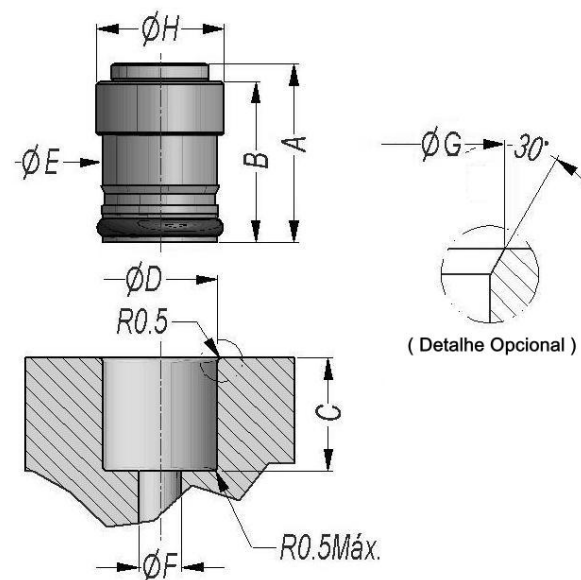
Cartucho para encaixe por pressão (para manifolds)

Torna-se parte integral do sistema, eliminando a necessidade de operações secundárias, como roscas por exemplo. Os cartuchos permitem uma montagem compacta, reduzindo o tempo final de montagem. Podem ser usados em bases plásticas ou metálicas.



Código	Tubo D.E.	A (mm)	B (mm)	C (mm) min.	D (mm) ± 0,05	E (mm)	F (mm) min.	G (mm)	H (pol)
DQ688DOT5/3200	5/32"	19,0	17,0	11,5	8,89	8,82	3,0	9,9	7/16
DQ688DOT0400	1/4"	21,0	19,0	12,7	12,83	12,74	4,8	14,0	9/16
DQ688DOT0600	3/8"	21,5	19,5	16,5	16,51	16,41	6,9	17,7	11/16
DQ688DOT0800	1/2"	24,0	22,0	19,8	19,69	19,59	10,2	20,8	7/8

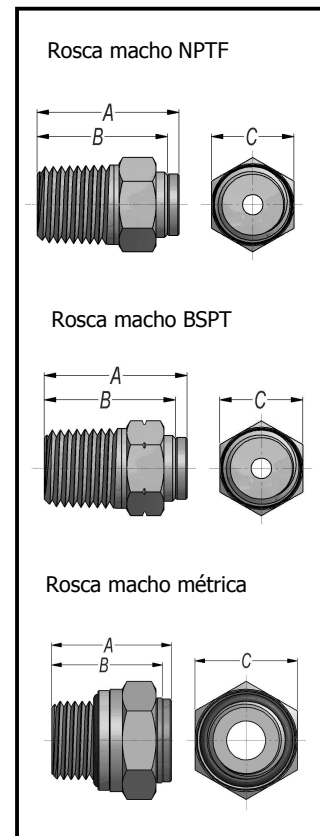
Material da cavidade	Acabamento superficial do diâmetro "D"
Alumínio, Plástico e Latão	Ra = 32u de polegadas
Aços	Ra = 20u de polegadas



**Modelo DQ68DOT**

## Conector macho

Código	Tubo D.E.	Rosca	A		B		C	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ68DOT5/3200	5/32"	10-32 UNF	23,0	0,906	21,0	0,827	9,5	3/8
DQ68DOT5/3201		1/16" NPTF	21,0	0,827	19,0	0,748	9,5	3/8
DQ68DOT5/3202		1/8" NPTF	20,0	0,787	18,0	0,709	11,1	7/16
DQ68DOT5/3204		1/4" NPTF	22,8	0,898	20,8	0,819	14,3	9/16
DQ68DOT0300	3/16"	10-32 UNF	23,7	0,933	21,7	0,854	11,1	7/16
DQ68DOT0302		1/8" NPTF	23,7	0,933	21,7	0,854	11,1	7/16
DQ68DOT0400	1/4"	10-32 UNF	21,6	0,850	19,6	0,772	11,1	7/16
DQ68DOT0402		1/8" NPTF	23,7	0,933	21,7	0,854	11,1	7/16
DQ68DOT0402RK		1/8" BSPT	23,7	0,933	21,7	0,854	11,1	7/16
DQ68DOT0404		1/4" NPTF	25,5	1,004	23,5	0,925	14,3	9/16
DQ68DOT0406		3/8" NPTF	25,5	1,004	23,5	0,925	17,5	11/16
DQ68DOT0408		1/2" NPTF	29,0	1,142	27,0	1,063	22,2	7/8
DQ68DOT04M12		M12x1.5	25,0	0,984	23,0	0,906	17,5	11/16
DQ68DOT0502		5/16"	1/8" NPTF	28,0	1,102	26,0	1,024	14,3
DQ68DOT0504	1/4" NPTF		28,5	1,122	26,5	1,043	14,3	9/16
DQ68DOT0602	3/8"	1/8" NPTF	28,8	1,134	26,8	1,055	15,9	5/8
DQ68DOT0604		1/4" NPTF	29,0	1,142	27,0	1,063	15,9	5/8
DQ68DOT0606		3/8" NPTF	25,5	1,004	23,5	0,925	17,5	11/16
DQ68DOT0608		1/2" NPTF	32,0	1,260	30,0	1,181	22,2	7/8
DQ68DOT0612		3/4" NPTF	33,5	1,319	31,5	1,240	27,0	1.1/16
DQ68DOT06M12		M12x1.5	31,0	1,220	29,0	1,142	17,0	0,669
DQ68DOT06M14		M14x1.5	29,0	1,142	27,0	1,063	19,0	3/4
DQ68DOT06M16		M16x1.5	25,0	0,984	23,0	0,906	22,0	0,866
DQ68DOT06M22	M22x1.5	27,8	1,094	25,8	1,016	27,0	1.1/16	
DQ68DOT0804	1/2"	1/4" NPTF	35,0	1,378	33,0	1,299	20,6	13/16
DQ68DOT0806		3/8" NPTF	30,0	1,181	28,0	1,102	20,6	13/16
DQ68DOT0808		1/2" NPTF	32,0	1,260	30,0	1,181	22,2	7/8
DQ68DOT0812		3/4" NPTF	34,5	1,358	32,5	1,280	27,0	1.1/16
DQ68DOT1006	5/8"	3/8" NPTF	36,0	1,417	34,0	1,339	23,8	15/16
DQ68DOT1008		1/2" NPTF	35,6	1,402	33,6	1,323	23,8	15/16
DQ68DOT1012		3/4" NPTF	33,5	1,319	31,5	1,240	27,0	1.1/16
DQ68DOT1208	3/4"	1/2" NPTF	43,0	1,693	41,0	1,614	27,0	1.1/16
DQ68DOT1212		3/4" NPTF	33,5	1,319	31,5	1,240	27,0	1.1/16

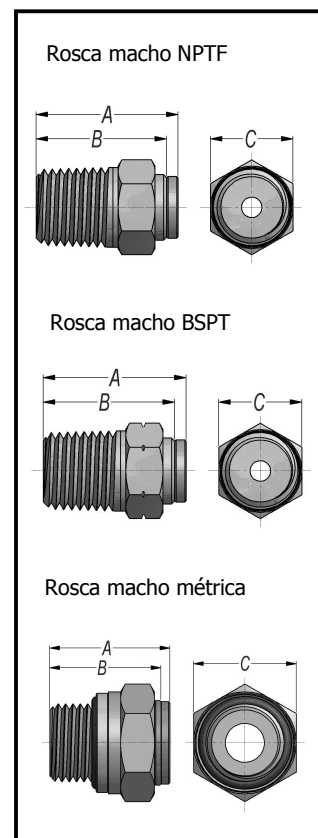




## Modelo MDQ68DOT

Conector macho

Código	Tubo D.E. (mm)	Rosca	A		B		C		
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	
MDQ68DOT602	6	1/8" NPTF	23,7	0,933	21,7	0,854	11,0	0,433	
MDQ68DOT602RK		1/8" BSPT	23,0	0,906	21,0	0,827	11,0	0,433	
MDQ68DOT604		1/4" NPTF	23,6	0,929	21,6	0,850	14,0	0,551	
MDQ68DOT604RK		1/4" BSPT	23,6	0,929	21,6	0,850	14,0	0,551	
MDQ68DOT606		3/8" NPTF	25,5	1,004	23,5	0,925	18,0	0,709	
MDQ68DOT608		1/2" NPTF	29,0	1,142	27,0	1,063	22,0	0,866	
MDQ68DOT6M10		M10x1.0	26,0	1,024	24,0	0,945	14,0	0,551	
MDQ68DOT6M12		M12x1.5	25,0	0,984	23,0	0,906	17,0	0,669	
MDQ68DOT6M14		M14x1.5	24,0	0,945	22,0	0,866	19,0	0,748	
MDQ68DOT6M16		M16x1.5	24,0	0,945	22,0	0,866	22,0	0,866	
MDQ68DOT6M22		M22x1.5	27,3	1,075	25,3	0,996	27,0	1,063	
MDQ68DOT802		8	1/8" NPTF	28,0	1,102	26,0	1,024	14,0	0,551
MDQ68DOT804			1/4" NPTF	28,5	1,122	26,5	1,043	14,0	0,551
MDQ68DOT804RK			1/4" BSPT	25,2	0,992	23,2	0,913	14,0	0,551
MDQ68DOT806	3/8" NPTF		24,0	0,945	22,0	0,866	18,0	0,709	
MDQ68DOT806RK	3/8" BSPT		24,0	0,945	22,0	0,866	18,0	0,709	
MDQ68DOT808	1/2" NPTF		28,8	1,134	26,8	1,055	22,0	0,866	
MDQ68DOT808RK	1/2" BSPT		28,5	1,122	26,5	1,043	22,0	0,866	
MDQ68DOT8M10	M10x1.0		30,0	1,181	28,0	1,102	14,0	0,551	
MDQ68DOT8M12	M12x1.5		26,5	1,043	24,5	0,965	17,0	0,669	
MDQ68DOT8M14	M14x1.5		25,0	0,984	23,0	0,906	19,0	0,748	
MDQ68DOT8M16	M16x1.5		24,3	0,957	22,3	0,878	22,0	0,866	
MDQ68DOT8M22	M22x1.5		27,3	1,075	25,3	0,996	27,0	1.1/16	
MDQ68DOT1004	10		1/4" NPTF	30,0	1,181	28,0	1,102	17,0	0,669
MDQ68DOT1006			3/8" NPTF	26,0	1,024	24,0	0,945	18,0	0,709
MDQ68DOT1008		1/2" NPTF	29,0	1,142	27,0	1,063	22,0	0,866	
MDQ68DOT10M10		M10x1.0	32,0	1,260	30,0	1,181	17,0	0,669	
MDQ68DOT10M12		M12x1.5	33,0	1,299	31,0	1,220	17,0	0,669	
MDQ68DOT10M14		M14x1.5	30,5	1,201	28,5	1,122	19,0	0,748	
MDQ68DOT10M16		M16x1.5	26,5	1,043	24,5	0,965	22,0	0,866	
MDQ68DOT10M22		M22x1.5	27,5	1,083	25,5	1,004	27,0	1,063	
MDQ68DOT1204	12	1/4" NPTF	35,0	1,378	33,0	1,299	20,6	13/16	
MDQ68DOT1206		3/8" NPTF	30,0	1,181	28,0	1,102	19,0	3/4	
MDQ68DOT1206RK		3/8" BSPT	30,0	1,181	28,0	1,102	19,0	0,748	
MDQ68DOT1208		1/2" NPTF	29,5	1,161	27,5	1,083	22,0	0,866	
MDQ68DOT1208RK		1/2" BSPT	28,5	1,122	26,5	1,043	22,0	0,866	
MDQ68DOT12M12		M12x1.5	35,0	1,378	33,0	1,299	19,0	0,748	
MDQ68DOT12M14		M14x1.5	32,3	1,272	30,3	1,193	19,0	0,748	
MDQ68DOT12M16		M16x1.5	31,7	1,248	29,7	1,169	22,0	0,866	
MDQ68DOT12M22		M22x1.5	27,5	1,083	25,5	1,004	27,0	1,063	
MDQ68DOT1606		16	3/8" NPTF	36,0	1,417	34,0	1,339	23,8	15/16
MDQ68DOT1608	1/2" NPTF		36,0	1,417	34,0	1,339	23,8	15/16	
MDQ68DOT16M16	M16x1.5		35,5	1,398	33,5	1,319	23,8	15/16	
MDQ68DOT16M22	M22x1.5		30,3	1,193	28,3	1,114	27,0	1.1/16	

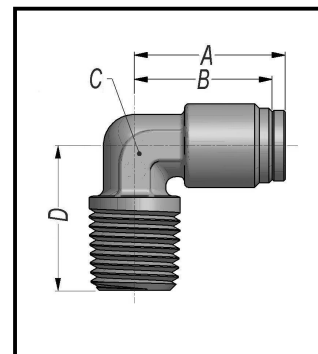




**Modelo DQ69DOT**

Cotovelo macho

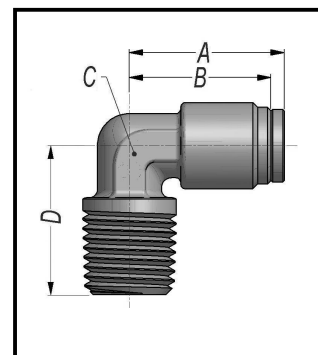
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ69DOT5/3202	5/32"	1/8" NPTF	19,5	0,768	17,5	0,689	7,9	5/16	17,5	0,689
DQ69DOT0302	3/16"	1/8" NPTF	20,0	0,787	18,0	0,709	9,5	3/8	17,0	0,669
DQ69DOT0304		1/4" NPTF	20,0	0,787	18,0	0,709	9,5	3/8	22,0	0,866
DQ69DOT0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	17,0	0,669
DQ69DOT0404		1/4" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	22,0	0,866
DQ69DOT0406		3/8" NPTF	23,0	0,906	21,0	0,827	12,7	1/2	25,5	1,004
DQ69DOT0502	5/16"	1/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	19,5	0,768
DQ69DOT0504		1/4" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	23,0	0,906
DQ69DOT0602	3/8"	1/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	20,0	0,787
DQ69DOT0604		1/4" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	24,0	0,945
DQ69DOT0606		3/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	25,5	1,004
DQ69DOT0608		1/2" NPTF	24,5	0,965	22,5	0,886	17,5	11/16	31,0	1,220
DQ69DOT0804	1/2"	1/4" NPTF	29,0	1,142	27,0	1,063	15,9	5/8	25,5	1,004
DQ69DOT0806		3/8" NPTF	29,0	1,142	27,0	1,063	15,9	5/8	25,0	0,984
DQ69DOT0808		1/2" NPTF	29,0	1,142	27,0	1,063	17,5	11/16	31,0	1,220
DQ69DOT1006	5/8"	3/8" NPTF	31,0	1,220	29,0	1,142	19,0	3/4	28,0	1,102
DQ69DOT1008		1/2" NPTF	31,0	1,220	29,0	1,142	19,0	3/4	32,0	1,260
DQ69DOT1208	3/4"	1/2" NPTF	34,0	1,339	32,0	1,260	25,4	1	36,0	1,417
DQ69DOT1212		3/4" NPTF	34,0	1,339	32,0	1,260	25,4	1	36,0	1,417



**Modelo MDQ69DOT**

Cotovelo macho

Código	Tubo D.E. (mm)	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
MDQ69DOT604	6	1/4" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	22,0	0,866
MDQ69DOT806RK	8	3/8" BSPT	24,5	0,965	22,5	0,886	13,0	0,512	25,5	1,004
MDQ69DOT808RK		1/2" BSPT	24,5	0,965	22,5	0,886	18,0	0,709	31,0	1,220
MDQ69DOT1004	10	1/4" NPTF	26,0	1,024	24,0	0,945	12,7	1/2	24,0	0,945
MDQ69DOT1206	12	3/8" NPTF	29,0	1,142	27,0	1,063	15,0	0,591	25,0	0,984
MDQ69DOT1206RK		3/8" BSPT	29,0	1,142	27,0	1,063	15,0	0,591	25,0	0,984
MDQ69DOT1208RK		1/2" BSPT	29,0	1,142	27,0	1,063	18,0	0,709	31,0	1,220

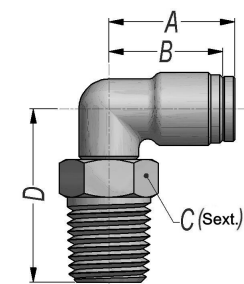


**Modelo DQ69DOTS**

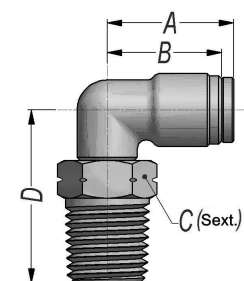
Cotovelo macho orientável

Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ69DOTS5/3200	5/32"	10-32 UNF	19,5	0,768	17,5	0,689	9,5	3/8	20,5	0,807
DQ69DOTS5/3202		1/8" NPTF	19,5	0,768	17,5	0,689	11,1	7/16	23,0	0,906
DQ69DOTS5/3204		1/4" NPTF	19,5	0,768	17,5	0,689	14,3	9/16	29,0	1,142
DQ69DOTS0302	3/16"	1/8" NPTF	20,0	0,787	18,0	0,709	11,1	7/16	23,0	0,906
DQ69DOTS0304		1/4" NPTF	20,0	0,787	18,0	0,709	14,3	9/16	29,0	1,142
DQ69DOTS0400	1/4"	10-32 UNF	23,0	0,906	21,0	0,827	7,9	5/16	23,5	0,925
DQ69DOTS0402		1/8" NPTF	23,0	0,906	21,0	0,827	11,1	7/16	23,0	0,906
DQ69DOTS0402RK		1/8" BSPT	23,0	0,906	21,0	0,827	11,1	7/16	23,0	0,906
DQ69DOTS0404		1/4" NPTF	23,0	0,906	21,0	0,827	14,3	9/16	29,5	1,161
DQ69DOTS0406		3/8" NPTF	23,0	0,906	21,0	0,827	17,5	11/16	29,5	1,161
DQ69DOTS0408		1/2" NPTF	23,0	0,906	21,0	0,827	22,2	7/8	38,5	1,516
DQ69DOTS0502	5/16"	1/8" NPTF	24,5	0,965	22,5	0,886	11,1	7/16	23,0	0,906
DQ69DOTS0602	3/8"	1/8" NPTF	24,5	0,965	22,5	0,886	11,1	7/16	25,0	0,984
DQ69DOTS0604		1/4" NPTF	24,5	0,965	22,5	0,886	14,3	9/16	31,0	1,220
DQ69DOTS0606		3/8" NPTF	24,5	0,965	22,5	0,886	17,5	11/16	30,5	1,201
DQ69DOTS0608		1/2" NPTF	24,5	0,965	22,5	0,886	22,2	7/8	35,5	1,398
DQ69DOTS0612		3/4" NPTF	24,5	0,965	22,5	0,886	27,0	1.1/16	35,5	1,398
DQ69DOTS06M12		M12x1.5	24,5	0,965	22,5	0,886	17,5	11/16	28,5	1,122
DQ69DOTS06M14		M14x1.5	24,5	0,965	22,5	0,886	19,0	0,748	27,0	1,063
DQ69DOTS06M16	M16x1.5	24,5	0,965	22,5	0,886	20,6	13/16	28,0	1,102	
DQ69DOTS06M22	M22x1.5	24,5	0,965	22,5	0,886	27,0	1.1/16	30,5	1,201	
DQ69DOTS0804	1/2"	1/4" NPTF	29,0	1,142	27,0	1,063	14,3	9/16	32,5	1,280
DQ69DOTS0806		3/8" NPTF	29,0	1,142	27,0	1,063	17,5	11/16	32,5	1,280
DQ69DOTS0808		1/2" NPTF	29,0	1,142	27,0	1,063	22,2	7/8	37,5	1,476
DQ69DOTS08M16		M16x1.5	29,0	1,142	27,0	1,063	20,6	13/16	30,0	1,181
DQ69DOTS1006	5/8"	3/8" NPTF	31,0	1,220	29,0	1,142	17,5	11/16	35,5	1,398
DQ69DOTS1008		1/2" NPTF	31,0	1,220	29,0	1,142	22,2	7/8	40,5	1,594
DQ69DOTS1012	3/4" NPTF	31,0	1,220	29,0	1,142	27,0	1.1/16	43,5	1,713	
DQ69DOTS1208	3/4"	1/2" NPTF	34,0	1,339	32,0	1,260	22,2	7/8	42,0	1,654
DQ69DOTS1212		3/4" NPTF	34,0	1,339	32,0	1,260	27,0	1.1/16	43,5	1,713

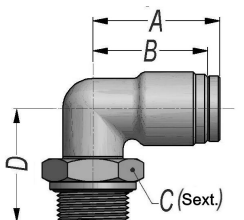
Rosca macho NPTF



Rosca macho BSPT



Rosca macho métrica

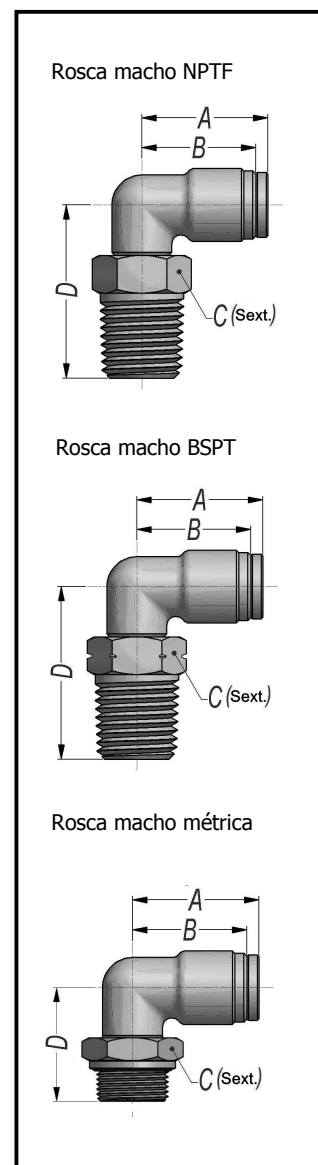




**Modelo MDQ69DOTS**

Cotovelo macho orientável

Código	Tubo D.E. (mm)	Rosca	A		B		C		D		
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	
MDQ69DOTS602	6	1/8" NPTF	22,5	0,886	20,5	0,807	11,1	7/16	23,0	0,906	
MDQ69DOTS604		1/4" NPTF	23,0	0,906	21,0	0,827	14,3	9/16	29,0	1,142	
MDQ69DOTS606		3/8" NPTF	23,0	0,906	21,0	0,827	17,5	11/16	29,0	1,142	
MDQ69DOTS608		1/2" NPTF	23,0	0,906	21,0	0,827	22,2	7/8	34,0	1,339	
MDQ69DOTS6M10		M10x1.0	22,5	0,886	20,5	0,807	14,0	0,551	24,0	0,945	
MDQ69DOTS6M12		M12x1.5	22,5	0,886	20,5	0,807	17,5	11/16	26,5	1,043	
MDQ69DOTS6M14		M14x1.5	23,0	0,906	21,0	0,827	19,0	3/4	26,5	1,043	
MDQ69DOTS6M16		M16x1.5	23,0	0,906	21,0	0,827	20,6	13/16	26,5	1,043	
MDQ69DOTS6M22		M22x1.5	23,0	0,906	21,0	0,827	27,0	1.1/16	29,0	1,142	
MDQ69DOTS802		8	1/8" NPTF	24,5	0,965	22,5	0,886	11,1	7/16	25,0	0,984
MDQ69DOTS804			1/4" NPTF	24,5	0,965	22,5	0,886	14,3	9/16	31,0	1,220
MDQ69DOTS806			3/8" NPTF	24,5	0,965	22,5	0,886	17,5	11/16	31,0	1,220
MDQ69DOTS8M12	M12x1.5		24,5	0,965	22,5	0,886	17,5	11/16	28,5	1,122	
MDQ69DOTS8M16	M16x1.5		24,5	0,965	22,5	0,886	20,6	13/16	28,5	1,122	
MDQ69DOTS8M22	M22x1.5		24,5	0,965	22,5	0,886	27,0	1.1/16	28,5	1,122	
MDQ69DOTS1002	10	1/8" NPTF	26,0	1,024	24,0	0,945	11,1	7/16	25,0	0,984	
MDQ69DOTS1004		1/4" NPTF	26,0	1,024	24,0	0,945	14,3	9/16	31,0	1,220	
MDQ69DOTS1006		3/8" NPTF	26,0	1,024	24,0	0,945	17,5	11/16	30,5	1,201	
MDQ69DOTS1008		1/2" NPTF	26,0	1,024	24,0	0,945	22,2	7/8	35,5	1,398	
MDQ69DOTS10M10		M10x1.0	26,0	1,024	24,0	0,945	14,0	0,551	26,0	1,024	
MDQ69DOTS10M12		M12x1.5	26,0	1,024	24,0	0,945	17,5	11/16	28,5	1,122	
MDQ69DOTS10M14		M14x1.5	26,0	1,024	24,0	0,945	19,0	3/4	28,0	1,102	
MDQ69DOTS10M16		M16x1.5	26,0	1,024	24,0	0,945	20,6	13/16	28,0	1,102	
MDQ69DOTS10M22		M22x1.5	26,0	1,024	24,0	0,945	27,0	1.1/16	31,0	1,220	
MDQ69DOTS1204		12	1/4" NPTF	29,0	1,142	27,0	1,063	14,3	9/16	32,5	1,280
MDQ69DOTS1206	3/8" NPTF		29,0	1,142	27,0	1,063	17,5	11/16	32,5	1,280	
MDQ69DOTS1208	1/2" NPTF		29,0	1,142	27,0	1,063	22,2	7/8	37,5	1,476	
MDQ69DOTS12M12	M12x1.5		29,0	1,142	27,0	1,063	17,5	11/16	30,0	1,181	
MDQ69DOTS12M14	M14x1.5		29,0	1,142	27,0	1,063	19,0	3/4	30,0	1,181	
MDQ69DOTS12M16	M16x1.5		29,0	1,142	27,0	1,063	20,6	13/16	30,0	1,181	
MDQ69DOTS12M18	M18x1.5		29,0	1,142	27,0	1,063	23,8	15/16	32,5	1,280	
MDQ69DOTS12M22	M22x1.5		29,0	1,142	27,0	1,063	27,0	1.1/16	32,5	1,280	
MDQ69DOTS1606	16	3/8" NPTF	31,0	1,220	29,0	1,142	17,5	11/16	35,5	1,398	
MDQ69DOTS1608		1/2" NPTF	31,0	1,220	29,0	1,142	22,2	7/8	40,5	1,594	
MDQ69DOTS1612		3/4" NPTF	31,0	1,220	29,0	1,142	27,0	1.1/16	40,5	1,594	
MDQ69DOTS16M22		M22x1.5	31,0	1,220	29,0	1,142	27,0	1.1/16	35,5	1,398	



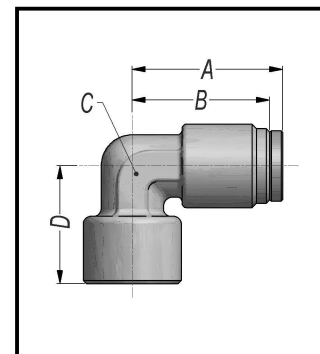




**Modelo DQ70DOT**

Cotovelo fêmea

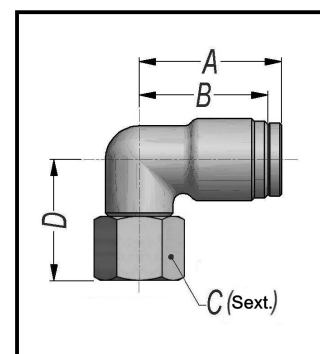
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ70DOT5/3202	5/32"	1/8" NPTF	19,5	0,768	17,5	0,689	7,9	5/16	17,5	0,689
DQ70DOT0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	18,5	0,728
DQ70DOT0404		1/4" NPTF	23,0	0,906	21,0	0,827	12,7	1/2	25,0	0,984
DQ70DOT0406		3/8" NPTF	23,0	0,906	21,0	0,827	17,5	11/16	31,0	1,220
DQ70DOT04M12		M12x1.5	23,0	0,906	21,0	0,827	12,7	1/2	22,5	0,886
DQ70DOT0604	3/8"	1/4" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	25,0	0,984
DQ70DOT0606		3/8" NPTF	24,5	0,965	22,5	0,886	17,5	11/16	31,0	1,220
DQ70DOT0806	1/2"	3/8" NPTF	29,0	1,142	27,0	1,063	17,5	11/16	31,0	1,220
DQ70DOT0808		1/2" NPTF	29,0	1,142	27,0	1,063	25,4	1	31,0	1,220



**Modelo DQ70DOTS**

Cotovelo fêmea orientável

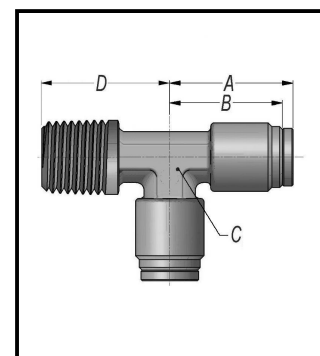
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ70DOTS5/3202	5/32"	1/8" NPTF	19,5	0,768	17,5	0,689	14,3	9/16	24,0	0,945
DQ70DOTS0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	14,3	9/16	24,0	0,945
DQ70DOTS0404		1/4" NPTF	23,0	0,906	21,0	0,827	19,0	3/4	30,0	1,181
DQ70DOTS0406		3/8" NPTF	23,0	0,906	21,0	0,827	22,2	7/8	36,5	1,437
DQ70DOTS0604		3/8"	1/4" NPTF	24,5	0,965	22,5	0,886	19,0	3/4	31,5
DQ70DOTS0606	3/8" NPTF		24,5	0,965	22,5	0,886	22,2	7/8	34,0	1,339
DQ70DOTS0806	1/2"	3/8" NPTF	29,0	1,142	27,0	1,063	22,2	7/8	36,0	1,417



**Modelo DQ71DOT**

Tee macho lateral

Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ71DOT5/3202	5/32"	1/8" NPTF	19,5	0,768	17,5	0,689	7,9	5/16	17,5	0,689
DQ71DOT0302	3/16"	1/8" NPTF	19,5	0,768	17,5	0,689	9,5	3/8	17,0	0,669
DQ71DOT0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	17,0	0,669
DQ71DOT0402RK		1/8" BSPT	23,0	0,906	21,0	0,827	9,5	3/8	17,0	0,669
DQ71DOT0404		1/4" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	22,0	0,866
DQ71DOT0602		3/8"	1/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	20,0
DQ71DOT0604	1/4" NPTF		24,5	0,965	22,5	0,886	12,7	1/2	24,0	0,945
DQ71DOT0606	1/2"	3/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	25,5	1,004
DQ71DOT0806		3/8" NPTF	29,0	1,142	27,0	1,063	15,9	5/8	27,0	1,063
DQ71DOT0808		1/2" NPTF	29,0	1,142	27,0	1,063	19,0	3/4	30,0	1,181

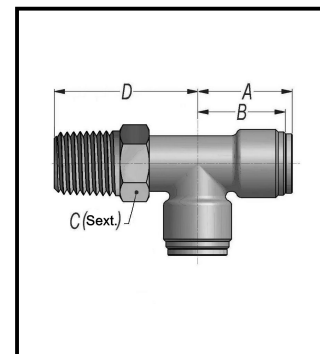




**Modelo DQ71DOTS**

Tee macho lateral orientável

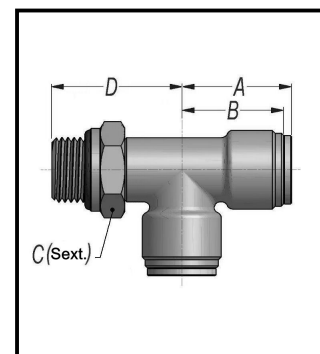
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ71DOTS5/3200	5/32"	10-32 UNF	19,5	0,768	17,5	0,689	9,5	3/8	17,5	0,689
DQ71DOTS5/3202		1/8" NPTF	19,5	0,768	17,5	0,689	11,1	7/16	21,5	0,846
DQ71DOTS0302	3/16"	1/8" NPTF	19,5	0,768	17,5	0,689	11,1	7/16	21,5	0,846
DQ71DOTS0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	11,1	7/16	23,5	0,925
DQ71DOTS0404		1/4" NPTF	23,0	0,906	21,0	0,827	14,3	9/16	29,5	1,161
DQ71DOTS0602	3/8"	1/8" NPTF	24,5	0,965	22,5	0,886	11,1	7/16	24,5	0,965
DQ71DOTS0604		1/4" NPTF	24,5	0,965	22,5	0,886	14,3	9/16	30,5	1,201
DQ71DOTS0606		3/8" NPTF	24,5	0,965	22,5	0,886	17,5	11/16	30,5	1,201
DQ71DOTS0608		1/2" NPTF	24,5	0,965	22,5	0,886	22,2	7/8	39,5	1,555
DQ71DOTS0806	1/2"	3/8" NPTF	29,0	1,142	27,0	1,063	17,5	11/16	32,5	1,280
DQ71DOTS0808		1/2" NPTF	29,0	1,142	27,0	1,063	22,2	7/8	37,5	1,476



**Modelo MDQ71DOTS**

Tee macho lateral orientável

Código	Tubo D.E. (mm)	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
MDQ71DOTS6M10	6	M10x1.0	23,0	0,906	21,0	0,827	14,0	0,551	24,0	0,945
MDQ71DOTS6M12		M12x1.5	23,0	0,906	21,0	0,827	17,5	11/16	26,5	1,043
MDQ71DOTS6M14		M14x1.5	23,0	0,906	21,0	0,827	19,0	3/4	26,5	1,043
MDQ71DOTS8M16	8	M16x1.5	24,5	0,965	22,5	0,886	20,5	13/16	28,5	1,122
MDQ71DOTS10M10	10	M10x1.0	26,0	1,024	24,0	0,945	14,0	0,551	28,0	1,102
MDQ71DOTS10M12		M12x1.5	26,0	1,024	24,0	0,945	17,5	11/16	28,0	1,102
MDQ71DOTS10M14		M14x1.5	26,0	1,024	24,0	0,945	19,0	3/4	28,0	1,102
MDQ71DOTS10M16		M16x1.5	26,0	1,024	24,0	0,945	20,6	13/16	28,0	1,102
MDQ71DOTS12M10	12	M10x1.0	29,0	1,142	27,0	1,063	14,0	0,551	30,0	1,181
MDQ71DOTS12M12		M12x1.5	29,0	1,142	27,0	1,063	17,5	11/16	30,0	1,181
MDQ71DOTS12M14		M14x1.5	29,0	1,142	27,0	1,063	19,0	3/4	30,0	1,181
MDQ71DOTS12M16		M16x1.5	29,0	1,142	27,0	1,063	20,6	13/16	30,0	1,181
MDQ71DOTS12M18		M18x1.5	27,0	1,063	27,0	1,063	23,8	15/16	32,5	1,280
MDQ71DOTS12M22		M22x1.5	29,0	1,142	27,0	1,063	27,0	1.1/16	32,5	1,280

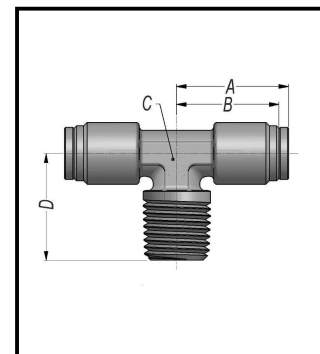




**Modelo DQ72DOT**

Tee macho central

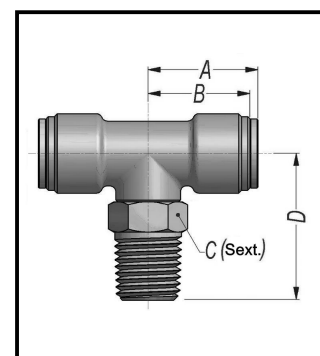
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ72DOT5/3202	5/32"	1/8" NPTF	19,5	0,768	17,5	0,689	7,9	5/16	17,0	0,669
DQ72DOT0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	17,0	0,669
DQ72DOT0404		1/4" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	22,0	0,866
DQ72DOT0406		3/8" NPTF	23,0	0,906	21,0	0,827	12,7	1/2	25,5	1,004
DQ72DOT0602	3/8"	1/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	20,0	0,787
DQ72DOT0604		1/4" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	24,0	0,945
DQ72DOT0606		3/8" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	25,5	1,004
DQ72DOT0608		1/2" NPTF	24,5	0,965	22,5	0,886	15,9	5/8	31,0	1,220
DQ72DOT0804	1/2"	1/4" NPTF	29,0	1,142	27,0	1,063	15,9	5/8	25,5	1,004
DQ72DOT0806		3/8" NPTF	29,0	1,142	27,0	1,063	15,9	5/8	25,0	0,984
DQ72DOT0808		1/2" NPTF	29,0	1,142	27,0	1,063	15,9	5/8	31,0	1,220



**Modelo DQ72DOTS**

Tee macho central orientável

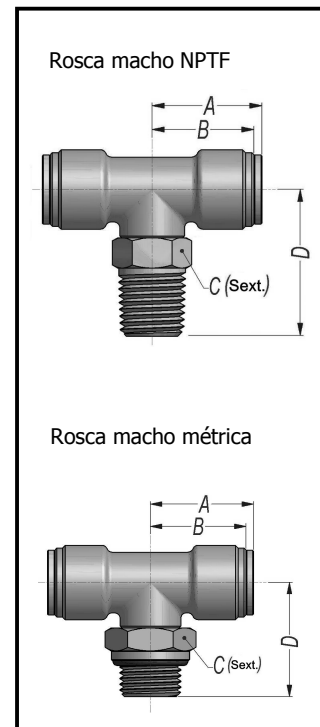
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ72DOTS5/3200	5/32"	10-32 UNF	19,5	0,768	17,5	0,689	9,5	3/8	20,5	0,807
DQ72DOTS5/3202		1/8" NPTF	19,5	0,768	17,5	0,689	11,1	7/16	22,5	0,886
DQ72DOTS0400	1/4"	10-32 UNF	23,0	0,906	21,0	0,827	7,9	5/16	23,5	0,925
DQ72DOTS0402		1/8" NPTF	23,0	0,906	21,0	0,827	11,1	7/16	23,5	0,925
DQ72DOTS0404		1/4" NPTF	23,0	0,906	21,0	0,827	14,3	9/16	29,5	1,161
DQ72DOTS0406		3/8" NPTF	23,0	0,906	21,0	0,827	17,5	11/16	29,5	1,161
DQ72DOTS0602	3/8"	1/8" NPTF	26,0	1,024	24,0	0,945	11,1	7/16	25,0	0,984
DQ72DOTS0604		1/4" NPTF	24,5	0,965	22,5	0,886	14,3	9/16	31,0	1,220
DQ72DOTS0606		3/8" NPTF	24,5	0,965	22,5	0,886	17,5	11/16	30,5	1,201
DQ72DOTS0608		1/2" NPTF	24,5	0,965	22,5	0,886	22,2	7/8	35,5	1,398
DQ72DOTS0804	1/2"	1/4" NPTF	29,0	1,142	27,0	1,063	14,3	9/16	32,5	1,280
DQ72DOTS0806		3/8" NPTF	29,0	1,142	27,0	1,063	17,5	11/16	32,5	1,280
DQ72DOTS0808		1/2" NPTF	29,0	1,142	27,0	1,063	22,2	7/8	37,5	1,476



**Modelo MDQ72DOTS**

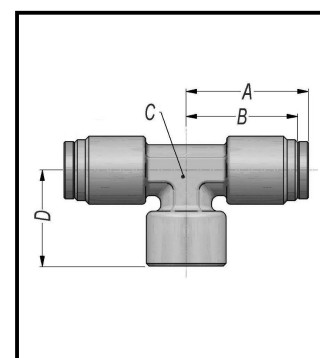
Tee macho central orientável

Código	Tubo D.E. (mm)	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
MDQ72DOTS602	6	1/8" NPTF	23,0	0,906	21,0	0,827	11,1	7/16	23,0	0,906
MDQ72DOTS604		1/4" NPTF	23,0	0,906	21,0	0,827	14,3	9/16	29,0	1,142
MDQ72DOTS606		3/8" NPTF	23,0	0,906	21,0	0,827	17,5	11/16	29,0	1,142
MDQ72DOTS6M10		M10x1.0	23,0	0,906	21,0	0,827	18,0	0,709	26,5	1,043
MDQ72DOTS6M12		M12x1.5	23,0	0,906	21,0	0,827	11,1	11/16	26,5	1,043
MDQ72DOTS6M14		M14x1.5	23,0	0,906	21,0	0,827	19,0	3/4	26,5	1,043
MDQ72DOTS804	8	1/4" NPTF	26,0	1,024	24,0	0,945	14,3	9/16	31,0	1,220
MDQ72DOTS8M16		M16x1.5	26,0	1,024	24,0	0,945	20,6	13/16	28,5	1,122
MDQ72DOTS1002	10	1/8" NPTF	26,0	1,024	24,0	0,945	11,1	7/16	24,5	0,965
MDQ72DOTS1004		1/4" NPTF	26,0	1,024	24,0	0,945	14,3	9/16	31,0	1,220
MDQ72DOTS1006		3/8" NPTF	26,0	1,024	24,0	0,945	11,1	11/16	31,0	1,220
MDQ72DOTS1008		1/2" NPTF	26,0	1,024	24,0	0,945	22,2	7/8	35,5	1,398
MDQ72DOTS10M10		M10x1.0	26,0	1,024	24,0	0,945	18,0	0,709	28,0	1,102
MDQ72DOTS10M12		M12x1.5	26,0	1,024	24,0	0,945	11,1	11/16	28,0	1,102
MDQ72DOTS10M14	M14x1.5	26,0	1,024	24,0	0,945	19,0	3/4	28,0	1,102	
MDQ72DOTS10M16	M16x1.5	26,0	1,024	24,0	0,945	20,6	13/16	28,0	1,102	
MDQ72DOTS1204	12	1/4" NPTF	29,0	1,142	27,0	1,063	14,3	9/16	32,5	1,280
MDQ72DOTS1206		3/8" NPTF	29,0	1,142	27,0	1,063	11,1	11/16	32,5	1,280
MDQ72DOTS1208		1/2" NPTF	29,0	1,142	27,0	1,063	22,2	7/8	37,5	1,476
MDQ72DOTS12M10		M10x1.0	29,0	1,142	27,0	1,063	18,0	0,709	30,0	1,181
MDQ72DOTS12M12		M12x1.5	29,0	1,142	27,0	1,063	11,1	11/16	30,0	1,181
MDQ72DOTS12M14		M14x1.5	29,0	1,142	27,0	1,063	19,0	3/4	30,0	1,181
MDQ72DOTS12M16		M16x1.5	29,0	1,142	27,0	1,063	20,6	13/16	30,0	1,181
MDQ72DOTS12M18		M18x1.5	29,0	1,142	27,0	1,063	23,8	15/16	32,5	1,280
MDQ72DOTS12M22	M22x1.5	29,0	1,142	27,0	1,063	27,0	1.1/16	32,5	1,280	


**Modelo DQ77DOT**

Tee fêmea central

Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ77DOT0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	9,5	3/8	18,5	0,728
DQ77DOT0604	3/8"	1/4" NPTF	24,5	0,965	22,5	0,886	12,7	1/2	25,0	0,984

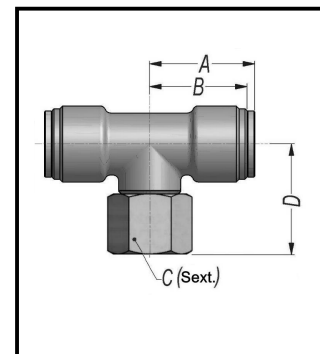




**Modelo DQ77DOTS**

Tee fêmea central orientável

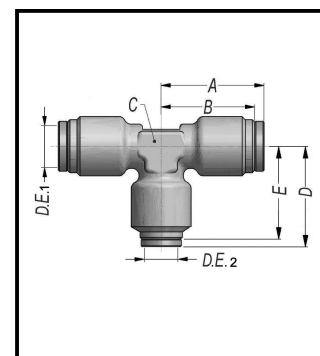
Código	Tubo D.E.	Rosca	A		B		C		D	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ77DOTS0402	1/4"	1/8" NPTF	23,0	0,906	21,0	0,827	14,3	9/16	31,0	1,220
DQ77DOTS0404		1/4" NPTF	23,0	0,906	21,0	0,827	19,0	3/4	34,5	1,358
DQ77DOTS0604	3/8"	1/4" NPTF	24,5	0,965	22,5	0,886	19,0	3/4	36,0	1,417



**Modelo DQ79DOT / MDQ79DOT**

Tee redutor central

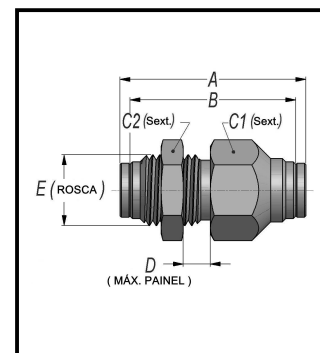
Código	Tubo D.E.1	Tubo D.E.2	A		B		C		D		E	
			(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)	(mm)	(pol)
DQ79DOT0604	3/8"	1/4"	24,5	0,965	22,5	0,886	12,7	1/2	21,0	0,827	23,0	0,906
MDQ79DOT128	12 mm	8 mm	29,0	1,142	27,0	1,063	15,9	5/8	25,0	0,984	27,0	1,063



**Modelo DQ82DOT**

União bulkhead

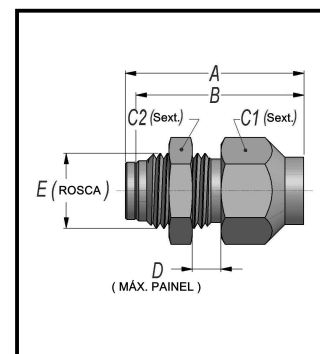
Código	Tubo D.E.	A		B		C1	C2	D		E ROSCA UNF
		(mm)	(pol)	(mm)	(pol)	(pol)	(pol)	(mm)	(pol)	
DQ82DOT5/32	5/32"	40,5	1,594	36,5	1,437	5/8	9/16	8,0	0,315	7/16-20
DQ82DOT03	3/16"	40,5	1,594	36,5	1,437	5/8	5/8	7,0	0,276	1/2-20
DQ82DOT04	1/4"	41,0	1,614	37,0	1,457	11/16	11/16	8,0	0,315	9/16-18
DQ82DOT06	3/8"	42,5	1,673	38,5	1,516	13/16	13/16	12,5	0,492	11/16-20
DQ82DOT08	1/2"	46,5	1,831	42,5	1,673	1	1	14,0	0,551	7/8-18
DQ82DOT10	5/8"	47,6	1,874	43,6	1,717	1.1/8	1.1/8	14,0	0,551	1-18



**Modelo DQ86DOT**

Conector fêmea bulkhead

Código	Tubo D.E.	Rosca	A		B		C1	C2	D		E ROSCA UNF
			(mm)	(pol)	(mm)	(pol)	(pol)	(pol)	(mm)	(pol)	
DQ86DOT0402	1/4"	1/8" NPTF	32,0	1,260	30,0	1,181	11/16	11/16	8,0	0,315	9/16-18
DQ86DOT0404		1/4" NPTF	38,0	1,496	36,0	1,417	3/4	11/16	8,0	0,315	9/16-18
DQ86DOT0604	3/8"	1/4" NPTF	39,0	1,535	37,0	1,457	13/16	13/16	12,5	0,492	11/16-20



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