

# Mounting Shanks CAT · Zancos de montaje CAT

ASME B5.50-1994



# MOUNTING SHANKS CAT ZANCOS DE MONTAJE CAT

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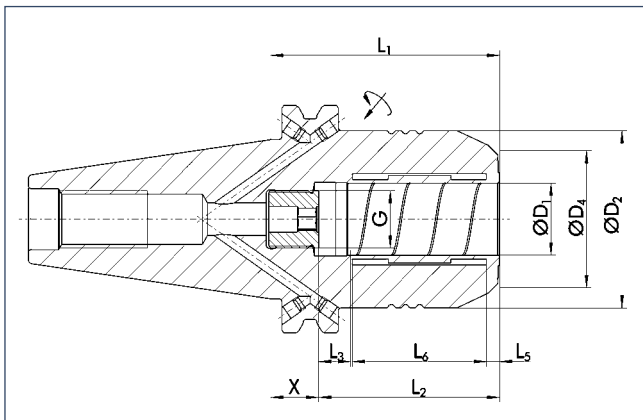
CAT

### TENDO SDF CAT 30

short, rigid design  
with axial length adjustment

### TENDO SDF CAT 30

corto, diseño rígido  
con ajuste de la longitud axial



<math>< 0.003 \text{ mm}</math>



50000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



✓



✓



✓

#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID	D <sub>2</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1/8"	≡											
3/16"	≡											
1/4"	0207046	31.75	29.5	13.8	50.8	37.5	10.0	3.6	20.5	M5	17.0	0.5
5/16"	≡											
3/8"	0207047	31.75	29.5	9.8	50.8	41.5	10.0	3.6	25.5	M5	45.0	0.5
1/2"	0207048	• 31.75	29.5	4.8	50.8	46.5	10.0	3.6	30.5	M5	95.0	0.5

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 📄 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 📄 Orificio para portador de datos como opción

- 📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido



#### Intermediate sleeves

see chapter accessories

#### Casquillos intermedios

consulte el capítulo sobre accesorios



#### Sleeve remover

see chapter accessories

#### Extractor de casquillos

consulte el capítulo sobre accesorios



#### Further accessories

see chapter accessories

#### Accesorios adicionales

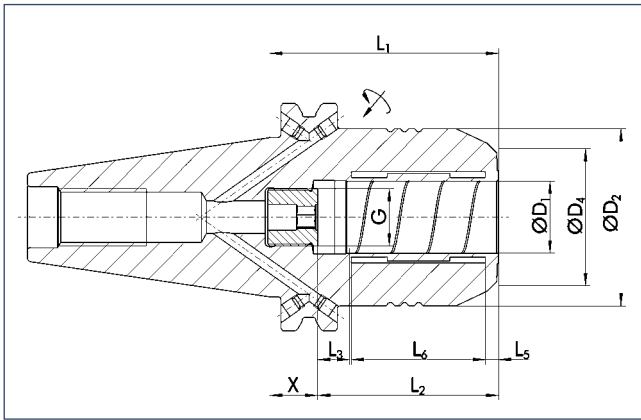
consulte el capítulo sobre accesorios

**TENDO SDF CAT 30**

short, rigid design  
with axial length adjustment

**TENDO SDF CAT 30**

corto, diseño rígido  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1.0												
2.0												
3.0												
4.0												
5.0												
6.0	0207043	31.75	29.5	13.8	50.8	37.0	10.0	3.6	20.5	M5	16.0	0.5
8.0	≡											
10.0	0207044	31.75	29.5	9.8	50.8	41.0	10.0	3.6	25.5	M5	45.0	0.5
12.0	0207045	• 31.75	29.5	4.8	50.8	46.0	10.0	3.6	30.5	M5	90.0	0.5

≡ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

🔧 Design suitable for MQL operations available on request  
🔧 Bore for data carrier as an option

📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

≡ Para sujetar con casquillos intermedios  
• Posible suministro de existencias

🔧 Diseño apto para operaciones MQL disponible a pedido  
🔧 Orificio para portador de datos como opción

📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

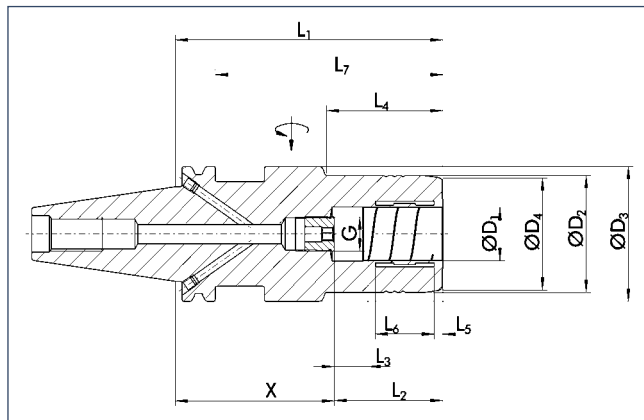
**Intermediate sleeves**  
see chapter accessories  
**Casquillos intermedios**  
consulte el capítulo sobre accesorios

**Sleeve remover**  
see chapter accessories  
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**Further accessories**  
see chapter accessories  
**Accesorios adicionales**  
consulte el capítulo sobre accesorios

### TENDO SDF-KS CAT 30

short, slim design  
with axial length adjustment



### TENDO SDF-KS CAT 30

corto, diseño delgado  
con ajuste de la longitud axial



<math>< 0.003 \text{ mm}</math>



50000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1/8"	≡														
3/16"	≡														
1/4"	0207053	26.0	44.45	23.5	64.6	101.6	37.0	10.0	38.5	3.6	20.5	82.55	M5	17.0	0.6
5/16"	≡														
3/8"	0207054	• 30.0	44.45	27.5	60.6	101.6	41.0	10.0	43.5	3.6	25.5	82.55	M8	45.0	0.7
7/16"	≡														
1/2"	0207055	• 32.0	44.45	28.5	55.6	101.6	46.0	10.0	48.5	3.6	30.5	82.55	M8	95.0	0.7
9/16"	≡														
5/8"	≡														
3/4"	0207056	• 42.0	44.45	37.5	50.6	101.6	51.0	10.0	48.5	3.7	37.8	82.55	M8	310.0	0.8

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

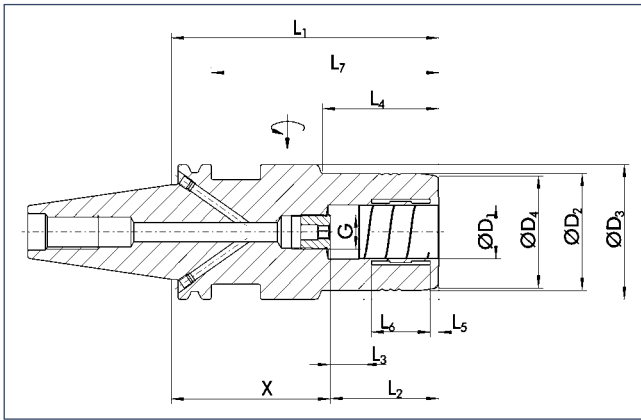
- 📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

**TENDO SDF-KS CAT 30**

short, slim design  
with axial length adjustment

**TENDO SDF-KS CAT 30**

corto, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1.0															
2.0															
3.0															
4.0															
5.0															
6.0	0207049	26.0	44.45	23.5	64.6	101.6	37.0	10.0	38.5	3.6	20.5	82.55	M5	16.0	0.6
8.0	☰														
10.0	0207050	30.0	44.45	27.5	60.6	101.6	41.0	10.0	43.5	3.6	25.5	82.55	M8	45.0	0.7
12.0	0207051 •	32.0	44.45	28.5	55.6	101.6	46.0	10.0	48.5	3.6	30.5	82.55	M8	90.0	0.7
20.0	0207052	42.0	44.45	37.5	50.6	101.6	51.0	10.0	48.5	3.7	37.8	82.55	M8	330.0	0.8

- ☰ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ☰ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Design suitable for MQL operations available on request
- 📄 Bore for data carrier as an option

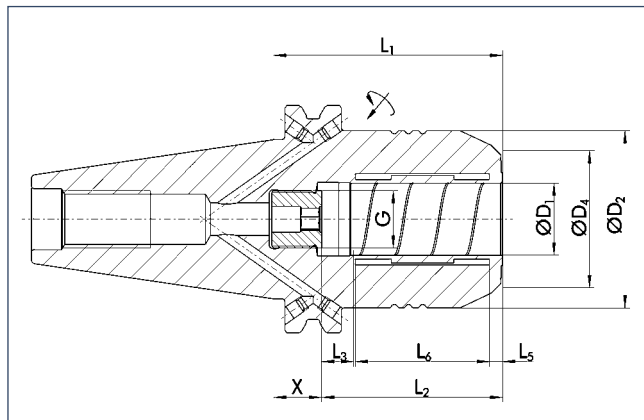
- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 📄 Orificio para portador de datos como opción

- 📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

- 📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

### TENDO SDF CAT 40

short, rigid design  
with axial length adjustment



### TENDO SDF CAT 40

corto, diseño rígido  
con ajuste de la longitud axial



<math>< 0.003 \text{ mm}</math>



50000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



✓



✓



✓

#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1/8"	≡												
3/16"	≡												
1/4"	0203932	•	44.5	26.0	27.0	64.0	37.0	10.0	3.6	20.5	M5	17.0	1.4
5/16"	≡												
3/8"	0203933	•	44.5	27.3	23.0	64.0	41.0	10.0	3.6	25.5	M6	45.0	1.4
7/16"	≡												
1/2"	0203934	•	44.5	28.6	18.0	64.0	46.0	10.0	3.6	30.5	M10x1	95.0	1.4
9/16"	≡												
5/8"	0203935	•	44.5	34.6	15.0	64.0	49.0	10.0	3.6	35.0	M10x1	185.0	1.4
3/4"	0203936	•	44.5	38.4	13.0	64.0	51.0	10.0	3.7	37.8	M10x1	310.0	1.5

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ☑ Design suitable for MQL operations available on request
- ☑ Bore for data carrier as an option

- i Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- ☑ Diseño apto para operaciones MQL disponible a pedido
- ☑ Orificio para portador de datos como opción

- i Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido



#### Intermediate sleeves

see chapter accessories

#### Casquillos intermedios

consulte el capítulo sobre accesorios



#### Sleeve remover

see chapter accessories

#### Extractor de casquillos

consulte el capítulo sobre accesorios



#### Further accessories

see chapter accessories

#### Accesorios adicionales

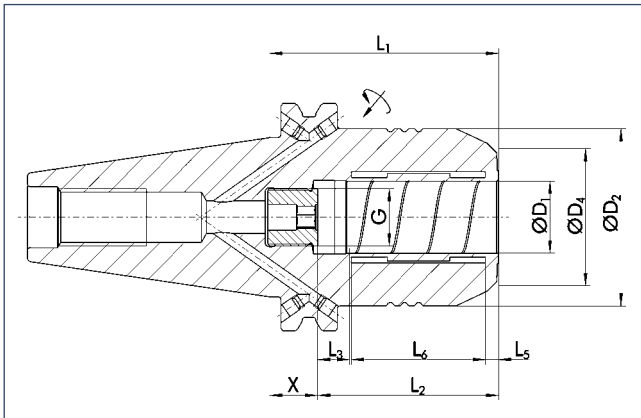
consulte el capítulo sobre accesorios

**TENDO SDF CAT 40**

short, rigid design  
with axial length adjustment

**TENDO SDF CAT 40**

corto, diseño rígido  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
6.0	0203921	•	44.5	26.1	27.0	64.0	37.0	10.0	3.6	20.5	M5	16.0	1.4
10.0	0203923	•	44.5	27.3	23.0	64.0	41.0	10.0	3.6	25.5	M6	45.0	1.4
12.0	0203924	•	44.5	28.6	18.0	64.0	46.0	10.0	3.6	30.5	M10x1	90.0	1.4
14.0	0203929	•	44.5	30.6	18.0	64.0	46.0	10.0	3.6	30.5	M10x1	110.0	1.4
16.0	0203925	•	44.5	34.6	15.0	64.0	49.0	10.0	3.6	35.0	M10x1	185.0	1.4
20.0	0203930	•	44.5	38.4	13.0	64.0	51.0	10.0	3.7	37.8	M10x1	330.0	1.5

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

- Bores on form B are sealed with set screws
- Additional sizes and special designs available on request

- Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

**Intermediate sleeves**  
see chapter accessories  
**Casquillos intermedios**  
consulte el capítulo sobre accesorios

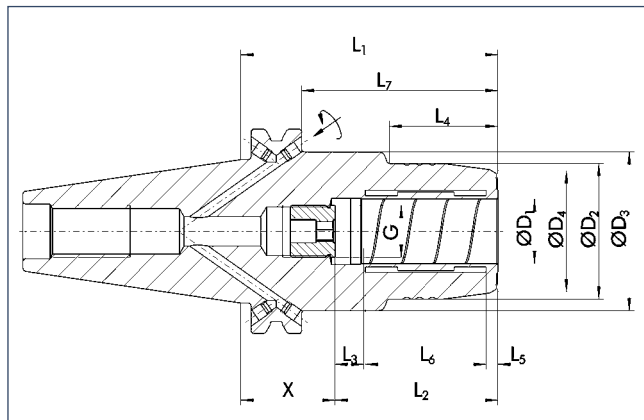
**Sleeve remover**  
see chapter accessories  
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**Further accessories**  
see chapter accessories  
**Accesorios adicionales**  
consulte el capítulo sobre accesorios



### TENDO SDF-KS CAT 40

short, slim design  
with axial length adjustment



### TENDO SDF-KS CAT 40

corto, diseño delgado  
con ajuste de la longitud axial



<math>< 0.003 \text{ mm}</math>



50000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1/8"	≡															
3/16"	≡															
1/4"	0203650	•	26.0	44.45	21.6	64.6	101.6	37.0	10.0	32.5	3.6	20.5	82.55	M5	17.0	1.9
5/16"	≡															
3/8"	0203652	•	30.0	44.45	25.6	60.6	101.6	41.0	10.0	41.5	3.6	25.5	82.55	M6	45.0	2.0
7/16"	≡															
1/2"	0203653	•	32.0	44.45	27.6	55.6	101.6	46.0	10.0	41.5	3.6	30.5	82.55	M10x1	95.0	2.0
9/16"	≡															
5/8"	0203654	•	38.0	44.45	33.6	52.6	101.6	49.0	10.0	49.5	3.6	35.0	82.55	M10x1	185.0	2.0
11/16"	≡															
3/4"	0203655	•	42.0	44.45	37.6	50.6	101.6	51.0	10.0	49.5	3.7	37.8	82.55	M10x1	310.0	2.2
13/16"	≡															
7/8"	≡															
15/16"	≡															
1"	0203656	•	55.0	63.0	52.1	44.6	101.6	57.0	10.0	66.5	4.2	42.3	82.55	M16x1	400.0	2.4
1 1/4"	0203657	•	63.0	80.0	60.6	40.6	101.6	61.0	10.0	66.5	4.2	47.7	82.55	M16x1	650.0	2.5

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

- ≡ Se puede sujetar con casquillos intermedios, posibles dimensiones intermedias
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

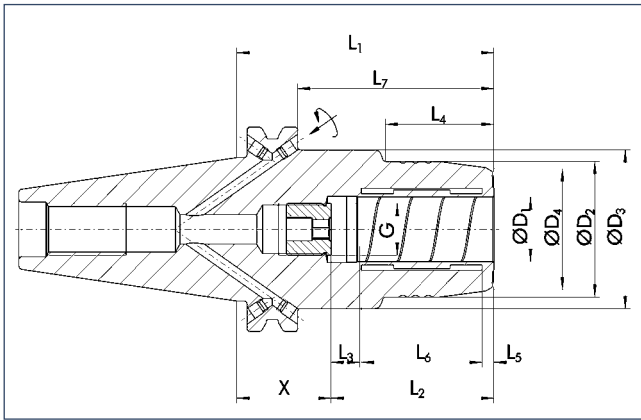
- 📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

**TENDO SDF-KS CAT 40**

short, slim design  
with axial length adjustment

**TENDO SDF-KS CAT 40**

corto, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1.0																
2.0																
3.0																
4.0																
5.0																
6.0	0203661	•	26.0	44.45	21.6	64.6	101.6	37.0	10.0	32.5	3.6	20.5	82.55	M5	16.0	1.9
10.0	0203663	•	30.0	44.45	25.6	60.6	101.6	41.0	10.0	41.5	3.6	25.5	82.55	M6	45.0	2.0
12.0	0203664	•	32.0	44.45	27.7	55.6	101.6	46.0	10.0	41.5	3.6	30.5	82.55	M10x1	90.0	2.0
14.0	0203669	•	34.0	44.45	31.5	55.6	101.6	46.0	10.0	49.5	3.6	30.5	82.55	M10x1	110.0	2.0
16.0	0203665	•	38.0	44.45	33.6	52.6	101.6	49.0	10.0	49.5	3.6	35.0	82.55	M10x1	185.0	2.2
18.0	☰															
20.0	0203666	•	42.0	44.45	37.7	50.6	101.6	51.0	10.0	49.5	3.7	37.8	82.55	M16x1	330.0	2.2
25.0	0203667	•	55.0	63.0	52.7	44.6	101.6	57.0	10.0	66.0	4.2	42.3	82.55	M16x1	400.0	2.4
32.0	0203668	•	63.0	80.0	60.0	40.6	101.6	61.0	10.0	66.0	4.2	47.7	82.55	M16x1	650.0	2.5

- ☰ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ☰ Se puede sujetar con casquillos intermedios, posibles dimensiones intermedias
- Posible suministro de existencias

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

- 📄 Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

- 📄 Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

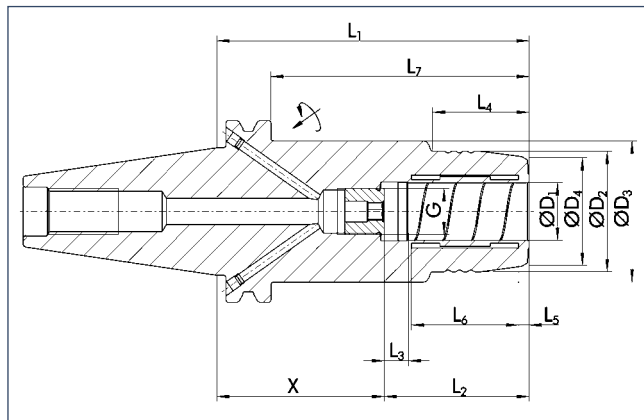
**Intermediate sleeves**  
see chapter accessories  
**Casquillos intermedios**  
consulte el capítulo sobre accesorios

**Sleeve remover**  
see chapter accessories  
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**Further accessories**  
see chapter accessories  
**Accesorios adicionales**  
consulte el capítulo sobre accesorios

### TENDO SDF-LS CAT 40

long, slim design  
with axial length adjustment



### TENDO SDF-LS CAT 40

largo, diseño delgado  
con ajuste de la longitud axial



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1/8"	≡															
3/16"	≡															
1/4"	0203670	•	26.0	44.45	21.7	115.4	152.4	37.0	10.0	32.5	3.6	20.5	133.3	M5	17.0	2.4
5/16"	≡															
3/8"	0203672	•	30.0	44.45	25.7	111.4	152.4	41.0	10.0	41.5	3.6	25.5	133.3	M6	45.0	2.4
7/16"	≡															
1/2"	0203673	•	32.0	44.45	27.7	106.4	152.4	46.0	10.0	41.5	3.6	30.5	133.3	M10x1	95.0	2.4
9/16"	≡															
5/8"	0203674	•	38.0	44.45	33.7	103.4	152.4	49.0	10.0	49.5	3.6	35.0	133.3	M10x1	185.0	2.5
3/4"	0203675	•	42.0	44.45	37.7	101.4	152.4	51.0	10.0	49.5	3.7	37.8	133.3	M10x1	310.0	2.5
1"	0203676	•	55.0	63.0	52.7	95.4	152.4	57.0	10.0	40.5	4.2	42.3	133.3	M16x1	400.0	3.0

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

- ≡ Se puede sujetar con casquillos intermedios, posibles dimensiones intermedias
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

- 📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

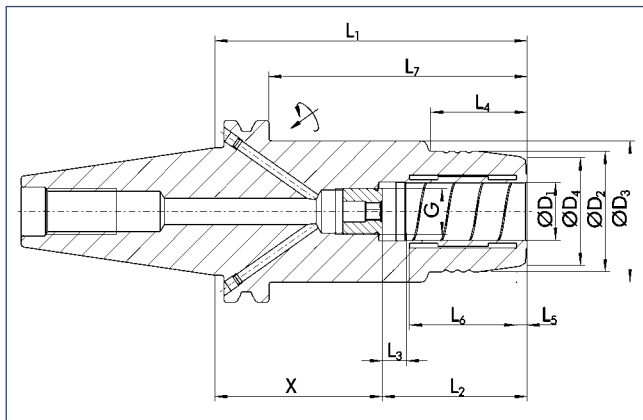
**Intermediate sleeves**  
see chapter accessories  
**Casquillos intermedios**  
consulte el capítulo sobre accesorios

**Sleeve remover**  
see chapter accessories  
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**Further accessories**  
see chapter accessories  
**Accesorios adicionales**  
consulte el capítulo sobre accesorios

**TENDO SDF-LS CAT 40**

long, slim design  
with axial length adjustment



**TENDO SDF-LS CAT 40**

largo, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1.0	≡															
2.0	≡															
3.0	≡															
4.0	≡															
5.0	≡															
6.0	0203681	•	26.0	44.45	21.7	115.4	152.4	37.0	10.0	32.5	3.6	20.5	133.3	M5	16.0	2.4
8.0	0203682	•	30.0	44.45	25.7		152.4	37.0		35.5	3.6	20.5	133.3	M6	23.0	2.4
10.0	0203683	•	30.0	44.45	25.7	111.4	152.4	41.0	10.0	41.5	3.6	25.5	133.3	M6	45.0	2.4
12.0	0203684	•	32.0	44.45	27.7	106.4	152.4	46.0	10.0	41.5	3.6	30.5	133.3	M10x1	90.0	2.4
14.0	0203689	•	34.0	44.45	31.5	106.4	152.4	46.0	10.0	49.5	3.6	30.5	133.3	M10x1	110.0	2.4
16.0	0203685	•	38.0	44.45	33.7	103.4	152.4	49.0	10.0	49.5	3.6	35.0	133.3	M10x1	185.0	2.5
20.0	0203686	•	42.0	44.45	37.7	101.4	152.4	51.0	10.0	49.5	3.7	37.8	133.3	M10x1	330.0	2.5
25.0	0203687	•	55.0	63.0	57.7	95.4	152.4	57.0	10.0	117.3	4.2	42.3	133.3	M16x1	400.0	3.0

≡ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

≡ Se puede sujetar con casquillos intermedios, posibles dimensiones intermedias  
• Posible suministro de existencias

🔧 Design suitable for MQL operations available on request  
🔧 Bore for data carrier as an option

🔧 Diseño apto para operaciones MQL disponible a pedido  
🔧 Orificio para portador de datos como opción

📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

**Intermediate sleeves**  
see chapter accessories  
**Casquillos intermedios**  
consulte el capítulo sobre accesorios

**Sleeve remover**  
see chapter accessories  
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

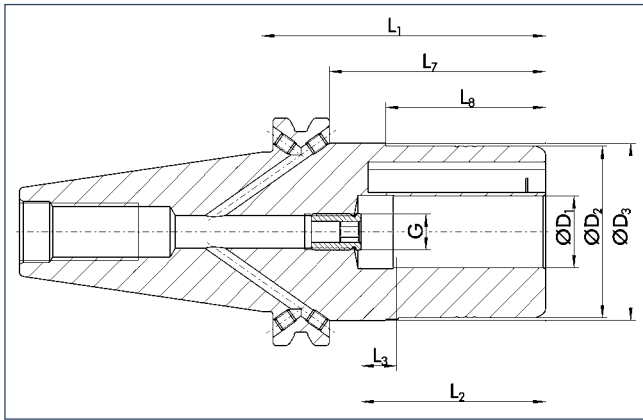
**Further accessories**  
see chapter accessories  
**Accesorios adicionales**  
consulte el capítulo sobre accesorios

### TRIBOS SPF-R CAT 40

short, rigid design  
with axial length adjustment

### TRIBOS SPF-R CAT 40

corto, diseño rígido  
con ajuste de la longitud axial



< 0.003 mm



25000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
1/8"	≡												
3/16"	≡												
1/4"	0233750	•	28.0	44.45	85.0	37.0	10.0	66.0	35.0	M5	8.0	1.1	0201980
5/16"	≡												
3/8"	0233751	•	35.0	44.45	85.0	42.0	10.0	66.0	40.0	M6	20.0	1.1	0201982
7/16"	≡												
1/2"	0233752	•	48.0	50.00	85.0	47.0	10.0	66.0	45.0	M8x1	50.0	1.1	0201984
9/16"	≡												
5/8"	0233753	•	48.0	50.00	85.0	48.0	10.0	66.0	45.0	M10x1	110.0	1.2	0201984
3/4"	0233754	•	48.0	50.00	85.0	52.0	10.0	66.0	45.0	M10x1	200.0	1.2	0201984

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ☑ Design suitable for MQL operations available on request
- ☑ Bore for data carrier as an option

- i Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- ☑ Diseño apto para operaciones MQL disponible a pedido
- ☑ Orificio para portador de datos como opción

- i Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter extensions

**Extensiones de herramientas**  
consulte el capítulo sobre extensiones



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios



**Length measuring devices**  
see chapter accessories

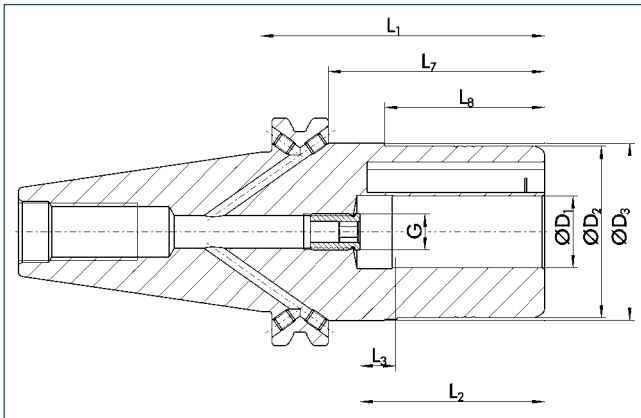
**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

**TRIBOS SPF-R CAT 40**

short, rigid design  
with axial length adjustment

**TRIBOS SPF-R CAT 40**

corto, diseño rígido  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
6.0	0235881	• 25.0	44.45	85.0	37.0	10.0	66.0	35.0	M5	8.0	0.91	0201978
8.0	0235882	• 28.0	44.45	85.0	37.0	10.0	66.0	35.0	M6	14.0	0.91	0201980
10.0	0235883	• 35.0	44.45	85.0	42.0	10.0	66.0	40.0	M8x1	24.0	0.91	0201982
12.0	0235884	• 42.0	44.45	85.0	47.0	10.0	66.0	45.0	M8x1	40.0	0.95	0201983
14.0	0235889	• 48.0	50.00	85.0	47.0	10.0	66.0	45.0	M10x1	80.0	1.09	0201984
16.0	0235885	• 48.0	50.00	85.0	48.0	10.0	66.0	45.0	M10x1	120.0	1.09	0201984
18.0	0235880	• 48.0	50.00	85.0	48.0	10.0	66.0	45.0	M10x1	180.0	1.09	0201984
20.0	0235886	• 48.0	50.00	85.0	52.0	10.0	66.0	45.0	M10x1	240.0	1.09	0201984

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

- Bores on form B are sealed with set screws
- Additional sizes and special designs available on request

- Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter extensions

**Extensiones de herramientas**  
consulte el capítulo sobre extensiones



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios

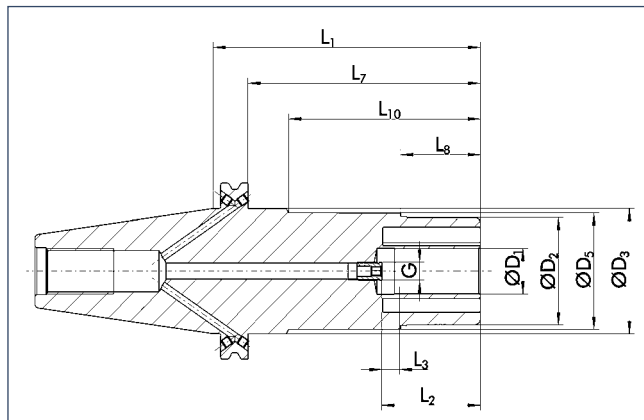


**Length measuring devices**  
see chapter accessories

**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

### TRIBOS SPF-R CAT 40 L<sub>1</sub>=150

long, rigid design  
with axial length adjustment



### TRIBOS SPF-R CAT 40 L<sub>1</sub>=150

largo, diseño rígido  
con ajuste de la longitud axial



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	L <sub>10</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
1/8"	≡														
3/16"	≡														
1/4"	0235041	•	28.0	44.45	30.5	150.0	37.0	10.0	131.0	35.0	110.0	M5	8.0	1.77	0201980
5/16"	≡														
3/8"	0235043	•	35.0	44.45	37.5	150.0	42.0	10.0	131.0	40.0	110.0	M6	18.0	1.81	0201982
7/16"	≡														
1/2"	0235044	•	48.0	44.45	50.5	150.0	47.0	10.0	131.0	45.0	115.0	M8x1	45.0	2.0	0201984
9/16"	≡														
5/8"	0235045	•	48.0	44.45	50.5	150.0	48.0	10.0	131.0	45.0	115.0	M10x1	110.0	2.0	0201984
3/4"	0235046	•	48.0	44.45	50.5	150.0	52.0	10.0	131.0	45.0	115.0	M10x1	200.0	2.0	0201984

≡ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

☑ Design suitable for MQL operations available on request  
☑ Bore for data carrier as an option

ⓘ Bores on form B are sealed with set screws  
Additional sizes and special designs available on request

≡ Para sujetar con casquillos intermedios  
• Posible suministro de existencias

☑ Diseño apto para operaciones MQL disponible a pedido  
☑ Orificio para portador de datos como opción

ⓘ Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter extensions

**Extensiones de herramientas**  
consulte el capítulo sobre extensiones



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios



**Length measuring devices**  
see chapter accessories

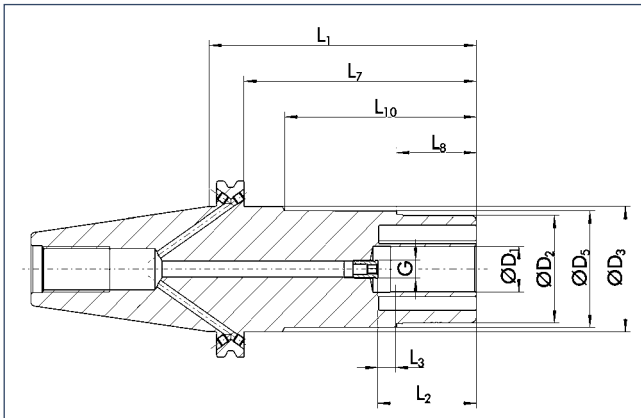
**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

**TRIBOS SPF-R CAT 40 L<sub>1</sub>=150**

long, rigid design  
with axial length adjustment

**TRIBOS SPF-R CAT 40 L<sub>1</sub>=150**

largo, diseño rígido  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	L <sub>10</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
6.0	0233891	• 25.0	44.45	30.5	150.0	37.0	10.0	131.0	35.0	110.0	M5	8.0	1.68	0201978
8.0	0233892	• 28.0	44.45	30.5	150.0	37.0	10.0	131.0	35.0	110.0	M6	14.0	1.68	0201980
10.0	0233893	• 35.0	44.45	37.5	150.0	42.0	10.0	131.0	40.0	110.0	M8x1	24.0	1.81	0201982
12.0	0233894	• 42.0	44.45		150.0	47.0	10.0	131.0	45.0		M8x1	40.0	1.81	0201983
14.0	0233899	• 48.0	44.45	50.5	150.0	47.0	10.0	131.0	45.0	115.0	M10x1	80.0	2.0	0201984
16.0	0233895	• 48.0	44.45	50.5	150.0	48.0	10.0	131.0	45.0	115.0	M10x1	120.0	2.0	0201984
18.0	0233890	• 48.0	44.45	50.5	150.0	48.0	10.0	131.0	45.0	115.0	M10x1	180.0	2.0	0201984
20.0	0233896	• 48.0	44.45	50.5	150.0	52.0	10.0	131.0	45.0	115.0	M10x1	240.0	2.0	0201984
25.0	0233897	• 60.0	44.45	62.5	150.0	57.0	10.0	131.0	45.0	115.0	M10x1	270.0	2.36	0201921
32.0	0233898	• 67.0	69.50	69.5	150.0	61.0	10.0	131.0	88.0	115.0	M10x1	350.0	2.63	0201922

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

- Bores on form B are sealed with set screws
- Additional sizes and special designs available on request

- Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

**Tool extensions**  
see chapter extensions  
**Extensiones de herramientas**  
consulte el capítulo sobre extensiones

**Clamping devices**  
see chapter accessories  
**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios

**Reduction inserts**  
see chapter accessories  
**Insertos de reducción**  
consulte el capítulo sobre accesorios

**Length measuring devices**  
see chapter accessories  
**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

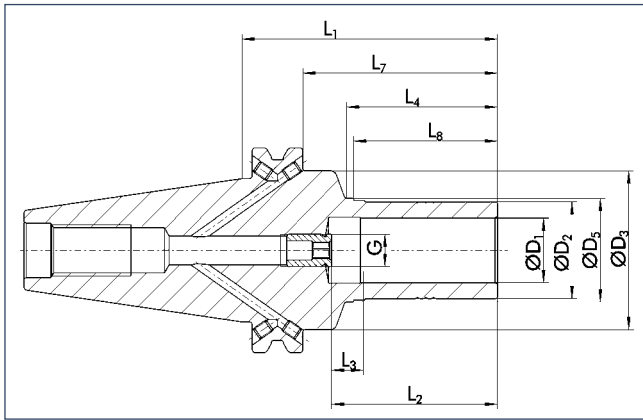


### TRIBOS SPF-S CAT 40

short, slim design  
with axial length adjustment

### TRIBOS SPF-S CAT 40

corto, diseño delgado  
con ajuste de la longitud axial



< 0.003 mm



25000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID	
1/8"	≡	•														
3/16"	≡	•														
1/4"	0205360	•	10.3	44.45	13.1	90.0	37.0	10.0	37.0	71.0	35.0	M5	6.0	0.9	0201988	
5/16"	0205361	•	13.0	44.45	15.1	90.0	37.0	10.0	37.0	71.0	35.0	M6	12.0	0.9		
3/8"	0205362	•	15.0	44.45	17.1	90.0	42.0	10.0	42.0	71.0	40.0	M6	20.0	0.95	0201989	
7/16"	≡	•														
1/2"	0205363	•	20.0	44.45	22.1	90.0	47.0	10.0	47.0	71.0	45.0	M8x1	40.0	1.0	0201991	
9/16"	≡	•														
5/8"	0205364	•	25.0	44.45	27.1	90.0	48.0	10.0	47.0	71.0	45.0	M10x1	70.0	1.0	0201977	
3/4"	0205365	•	29.0	44.45	31.1	90.0	52.0	10.0	47.0	71.0	45.0	M10x1	120.0	1.05	0201992	

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ☑ Design suitable for MQL operations available on request
- ☑ Bore for data carrier as an option

- ℹ Optimal for light machine cutting – consider radial forces  
Bores on form B are sealed with set screws  
Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- ☑ Diseño apto para operaciones MQL disponible a pedido
- ☑ Orificio para portador de datos como opción

- ℹ Óptimo para corte con máquinas ligeras; considera fuerzas radiales  
Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter extensions

**Extensiones de herramientas**  
consulte el capítulo sobre extensiones



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios



**Length measuring devices**  
see chapter accessories

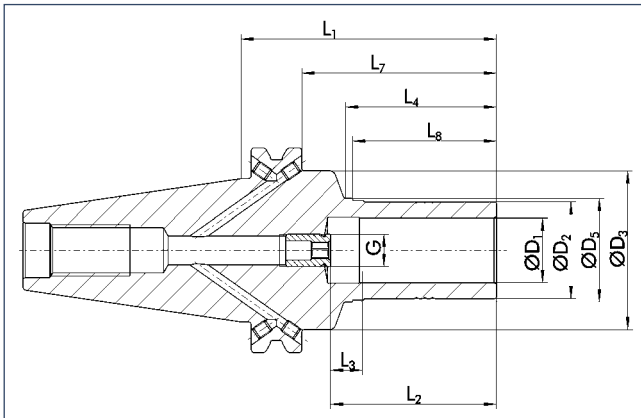
**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

**TRIBOS SPF-S CAT 40**

short, slim design  
with axial length adjustment

**TRIBOS SPF-S CAT 40**

corto, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
6.0	0215911	•	10.0	44.45	13.1	90.0	37.0	10.0	37.0	71.0	35.0	M5	5.0	0.9	0201972
8.0	0215912	•	13.0	44.45	15.1	90.0	37.0	10.0	37.0	71.0	35.0	M6	12.0	0.9	0201973
10.0	0215913	•	16.0	44.45	18.1	90.0	42.0	10.0	42.0	71.0	40.0	M8x1	20.0	0.95	0201974
12.0	0215914	•	19.0	44.45	21.1	90.0	47.0	10.0	47.0	71.0	45.0	M8x1	30.0	1.0	0201975
14.0	0215919	•	22.0	44.45	24.1	90.0	47.0	10.0	47.0	71.0	45.0	M10x1	50.0	1.0	0201976
16.0	0215915	•	25.0	44.45	27.1	90.0	48.0	10.0	47.0	71.0	45.0	M10x1	70.0	1.0	0201977
18.0	0215910	•	28.0	44.45	30.1	90.0	48.0	10.0	47.0	71.0	45.0	M10x1	100.0	1.05	0201979
20.0	0215916	•	30.0	44.45	32.1	90.0	52.0	10.0	47.0	71.0	45.0	M10x1	150.0	1.05	0201981
25.0	0215917	•	36.0	44.45	38.1	90.0	57.0	10.0	47.0	71.0	45.0	M10x1	200.0	1.1	0201987
32.0	0215918	•	45.0	44.45	48.1	90.0	61.0	10.0	55.0	71.0	55.0	M10x1	280.0	1.12	0201998

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

- Optimal for light machine cutting – consider radial forces
- Bores on form B are sealed with set screws
- Additional sizes and special designs available on request

- Óptimo para corte con máquinas ligeras; considera fuerzas radiales
- Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter extensions

**Extensiones de herramientas**  
consulte el capítulo sobre extensiones



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios

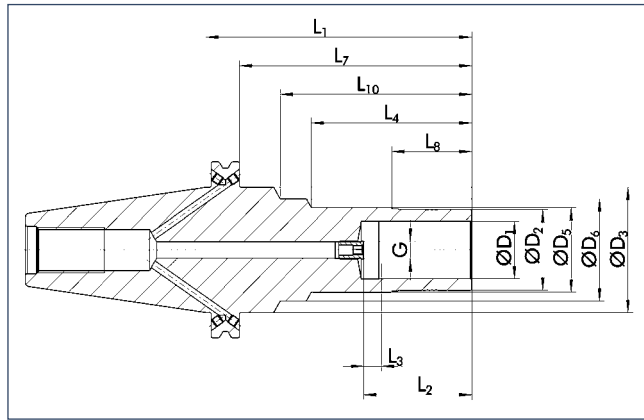


**Length measuring devices**  
see chapter accessories

**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

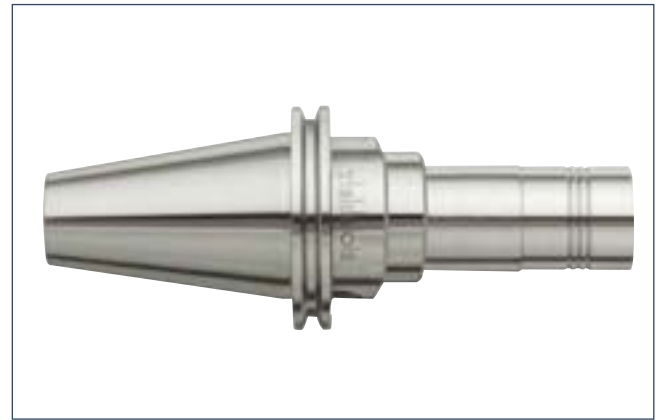
### TRIBOS SPF-S CAT 40 L<sub>1</sub>=150

long, slim design  
with axial length adjustment



### TRIBOS SPF-S CAT 40 L<sub>1</sub>=150

largo, diseño delgado  
con ajuste de la longitud axial



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	D <sub>6</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	L <sub>10</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
1/8"	≡																
3/16"	≡																
1/4"	0205501	•	10.3	44.45	13.5	36.0	150.0	37.0	10.0	62.0	131.0	35.0	110.0	M5	6.0	1.5	0201988
5/16"	≡																
3/8"	0205503	•	15.0	44.45	18.5	36.0	150.0	42.0	10.0	82.0	131.0	40.0	110.0	M8x1	20.0	1.5	0201989
7/16"	≡																
1/2"	0205504	•	20.0	44.45	22.5	36.0	150.0	47.0	10.0	82.0	131.0	45.0	110.0	M8x1	40.0	1.54	0201991
9/16"	≡																
5/8"	0205505	•	25.0	44.45	27.5	36.0	150.0	48.0	10.0	82.0	131.0	45.0	110.0	M10x1	70.0	1.59	0201977
3/4"	0205506	•	29.0	44.45	32.5	36.0	150.0	52.0	10.0	82.0	131.0	45.0	110.0	M10x1	120.0	1.59	0201992

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Optimal for light machine cutting – consider radial forces
- Bores on form B are sealed with set screws
- Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

- 📄 Óptimo para corte con máquinas ligeras; considera fuerzas radiales
- Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter extensions

**Extensiones de herramientas**  
consulte el capítulo sobre extensiones



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios

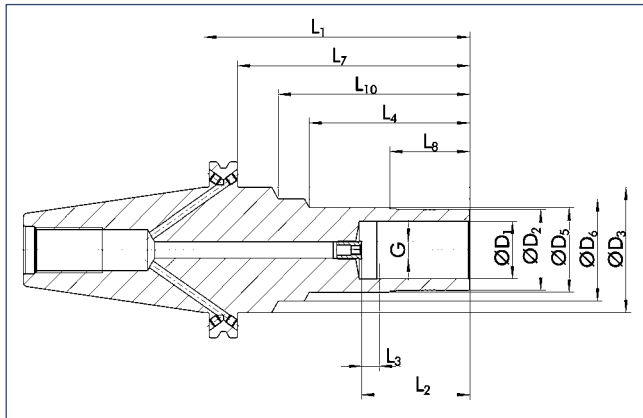


**Length measuring devices**  
see chapter accessories

**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

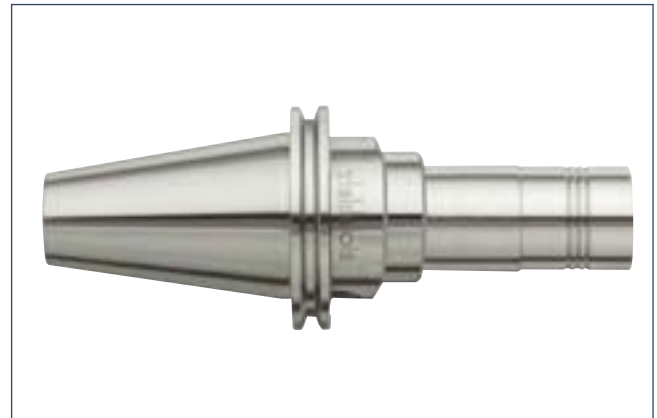
**TRIBOS SPF-S CAT 40 L<sub>1</sub>=150**

long, slim design  
with axial length adjustment



**TRIBOS SPF-S CAT 40 L<sub>1</sub>=150**

largo, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	D <sub>6</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	L <sub>10</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
6.0	0205931	•	10.0	44.45	13.5	36.0	150.0	37.0	10.0	62.0	131.0	35.0	110.0	M5	5.0	1.5	0201972
8.0	0205932	•	13.0	44.45	15.5	36.0	150.0	37.0	10.0	62.0	131.0	35.0	110.0	M6	12.0	1.5	0201973
10.0	0205933	•	16.0	44.45	18.5	36.0	150.0	42.0	10.0	82.0	131.0	40.0	110.0	M8x1	20.0	1.5	0201974
12.0	0205934	•	19.0	44.45	22.5	36.0	150.0	47.0	10.0	82.0	131.0	45.0	110.0	M8x1	30.0	1.54	0201975
14.0	0205939	•	22.0	44.45	24.5	36.0	150.0	47.0	10.0	82.0	131.0	45.0	110.0	M10x1	50.0	1.59	0201976
16.0	0205935	•	25.0	44.45	27.5	36.0	150.0	48.0	10.0	82.0	131.0	45.0	110.0	M10x1	70.0	1.59	0201977
18.0	0205930	•	28.0	44.45	29.5	36.0	150.0	48.0	10.0	82.0	131.0	45.0	110.0	M10x1	110.0	1.59	0201979
20.0	0205936	•	30.0	44.45	32.5	36.0	150.0	52.0	10.0	82.0	131.0	45.0	110.0	M10x1	150.0	1.59	0201981

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

- Optimal for light machine cutting – consider radial forces
- Bores on form B are sealed with set screws
- Additional sizes and special designs available on request

- Óptimo para corte con máquinas ligeras; considera fuerzas radiales
- Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter extensions

**Extensiones de herramientas**  
consulte el capítulo sobre extensiones



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios

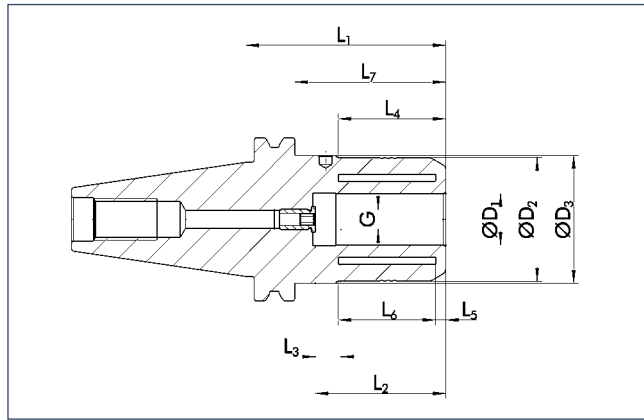


**Length measuring devices**  
see chapter accessories

**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

### SINO-R CAT 40

with axial length adjustment



### SINO-R CAT 40

con ajuste de la longitud axial



≤ 0.005 mm



40000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



✓



✓



✓

#### Technical data

#### Datos técnicos

D <sub>1</sub>	ID	D <sub>2</sub>	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub>	G	M <sub>min</sub>	m
[inch]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]
1/8"	≡												
3/16"	≡												
1/4"	≡												
5/16"	≡												
3/8"	≡												
1/2"	<b>0209612</b>	• 39.0	44.9	73.0	46.0	10.0	34.0	5.0	32.0	54.0	M8x1	130.0	1.25

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

Bore for data carrier as an option

Optimal for heavy duty milling  
Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

Orificio para portador de datos como opción

Óptimo para fresado de trabajo pesado  
Tamaños adicionales y diseños especiales disponibles a pedido



**Intermediate sleeves**  
see chapter accessories

**Casquillos intermedios**  
consulte el capítulo sobre accesorios



**Spanner wrenches**  
see chapter accessories

**Llaves de apriete**  
consulte el capítulo sobre accesorios



**"C"-spanners**  
see chapter accessories

**Llaves de gancho**  
consulte el capítulo sobre accesorios



**Sleeve remover**  
see chapter accessories

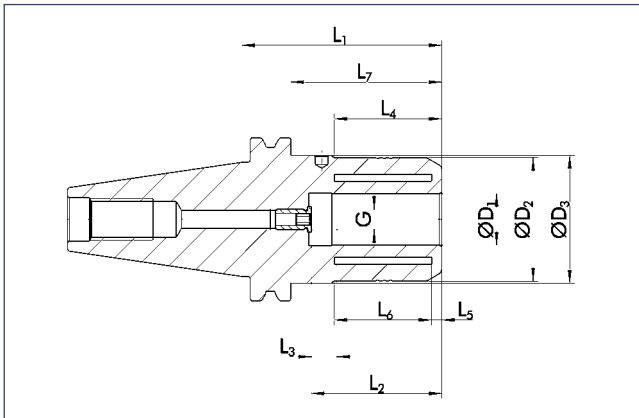
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**SINO-R CAT 40**

with axial length adjustment

**SINO-R CAT 40**

con ajuste de la longitud axial



CAT



≤ 0.005 mm



40000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



✓



✓



✓

**Technical data**

**Datos técnicos**

D <sub>1</sub>	ID	D <sub>2</sub>	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub>	G	M <sub>min</sub>	m	
[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]	
3.0	≡													
4.0	≡													
6.0	≡													
8.0	≡													
10.0	≡													
12.0	0209623	•	39.0	44.9	73.0	46.0	10.0	34.0	5.0	32.0	54.0	M8x1	130.0	1.2

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

☑ Bore for data carrier as an option

☑ Orificio para portador de datos como opción

ℹ Optimal for heavy duty milling  
Additional sizes and special designs available on request

ℹ Óptimo para fresado de trabajo pesado  
Tamaños adicionales y diseños especiales disponibles a pedido



**Intermediate sleeves**  
see chapter accessories

**Casquillos intermedios**  
consulte el capítulo sobre accesorios



**Spanner wrenches**  
see chapter accessories

**Llaves de apriete**  
consulte el capítulo sobre accesorios



**"C"-spanners**  
see chapter accessories

**Llaves de gancho**  
consulte el capítulo sobre accesorios

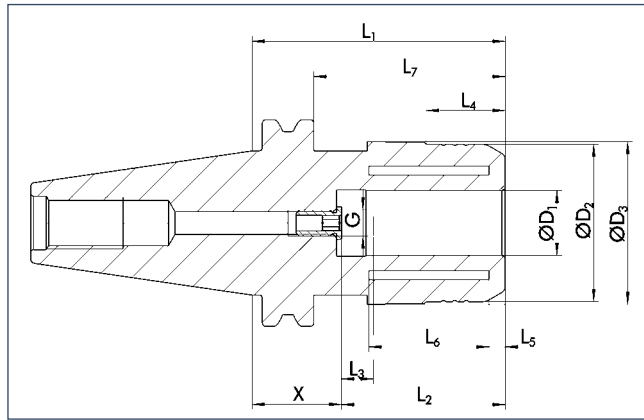


**Sleeve remover**  
see chapter accessories

**Extractor de casquillos**  
consulte el capítulo sobre accesorios

### SINO-R CAT 40

with axial length adjustment



### SINO-R CAT 40

con ajuste de la longitud axial



≤ 0.005 mm



40000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub>	ID	D <sub>2</sub>	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub>	G	M <sub>min</sub>	m
[inch]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]
1/4"	≡												
5/16"	≡												
3/8"	≡												
7/16"	≡												
1/2"	≡												
9/16"	≡												
5/8"	≡												
3/4"	0209614	• 48.5	49.72	78.0	51.0	10.0	24.0	5.0	37.0	59.0	M8x1	450.0	1.5

≡ Additional sizes can be clamped with intermediate sleeves  
 • Can be supplied from stock

Ⓜ Bore for data carrier as an option

ⓘ Optimal for heavy duty milling  
 Additional sizes and special designs available on request

≡ Para sujetar con casquillos intermedios  
 • Posible suministro de existencias

Ⓜ Orificio para portador de datos como opción

ⓘ Óptimo para fresado de trabajo pesado  
 Tamaños adicionales y diseños especiales disponibles a pedido



**Intermediate sleeves**  
see chapter accessories

**Casquillos intermedios**  
consulte el capítulo sobre accesorios



**Spanner wrenches**  
see chapter accessories

**Llaves de apriete**  
consulte el capítulo sobre accesorios



**"C"-spanners**  
see chapter accessories

**Llaves de gancho**  
consulte el capítulo sobre accesorios



**Sleeve remover**  
see chapter accessories

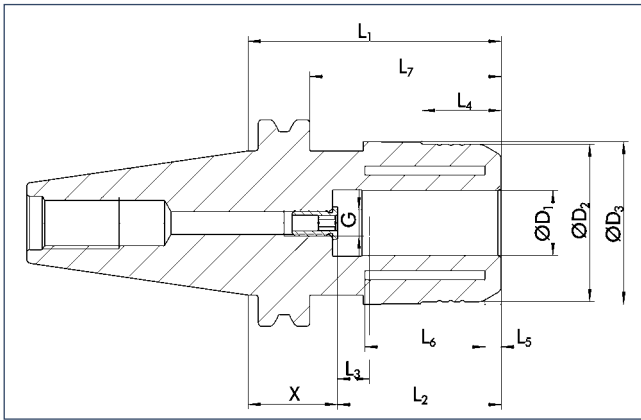
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**SINO-R CAT 40**

with axial length adjustment

**SINO-R CAT 40**

con ajuste de la longitud axial



CAT



≤ 0.005 mm



40000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



✓



✓



✓

**Technical data**

**Datos técnicos**

D <sub>1</sub>	ID	D <sub>2</sub>	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub>	G	M <sub>min</sub>	m
[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]
3.0	≡												
4.0	≡												
6.0	≡												
8.0	≡												
10.0	≡												
12.0	≡												
16.0	≡												
20.0	0209627	• 48.5	49.72	78.0	51.0	10.0	24.0	5.0	37.0	59.0	M8x1	450.0	1.5

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

☑ Bore for data carrier as an option

☑ Orificio para portador de datos como opción

ℹ Optimal for heavy duty milling  
Additional sizes and special designs available on request

ℹ Óptimo para fresado de trabajo pesado  
Tamaños adicionales y diseños especiales disponibles a pedido



**Intermediate sleeves**  
see chapter accessories

**Casquillos intermedios**  
consulte el capítulo sobre accesorios



**Spanner wrenches**  
see chapter accessories

**Llaves de apriete**  
consulte el capítulo sobre accesorios



**"C"-spanners**  
see chapter accessories

**Llaves de gancho**  
consulte el capítulo sobre accesorios



**Sleeve remover**  
see chapter accessories

**Extractor de casquillos**  
consulte el capítulo sobre accesorios

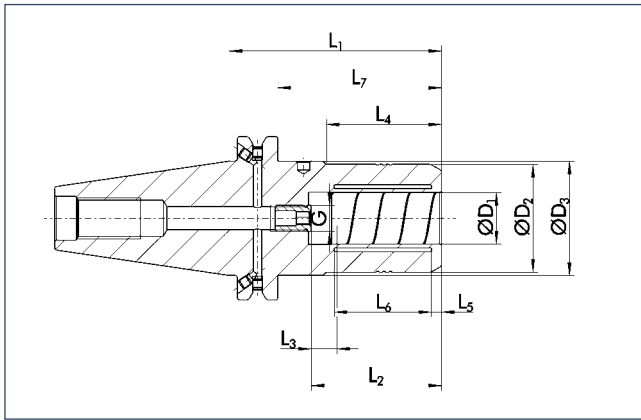


### SINO-T CAT 40

with axial length adjustment

### SINO-T CAT 40

con ajuste de la longitud axial



≤ 0.005 mm



40000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub>	ID		D <sub>2</sub>	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub>	G	M <sub>min</sub>	m
[inch]			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]
1/8"	≡													
3/16"	≡													
1/4"	≡													
5/16"	≡													
3/8"	≡													
1/2"	0209154	•	30.0	44.45	73.1	46.0	10.0	32.0	4.0	30.0	54.0	M8x1	95.0	1.2
9/16"	≡													
5/8"	≡													
3/4"	0209156	•	42.0	44.45	83.1	51.0	10.0	45.0	4.0	38.5	64.0	M10x1	295.0	1.4

≡ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

☐ Bore for data carrier as an option

ℹ Bores on form B are sealed with set screws  
Additional sizes and special designs available on request

≡ Para sujetar con casquillos intermedios  
• Posible suministro de existencias

☐ Orificio para portador de datos como opción

ℹ Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido



**Intermediate sleeves**  
see chapter accessories

**Casquillos intermedios**  
consulte el capítulo sobre accesorios



**Spanner wrenches**  
see chapter accessories

**Llaves de apriete**  
consulte el capítulo sobre accesorios



**"C"-spanners**  
see chapter accessories

**Llaves de gancho**  
consulte el capítulo sobre accesorios



**Sleeve remover**  
see chapter accessories

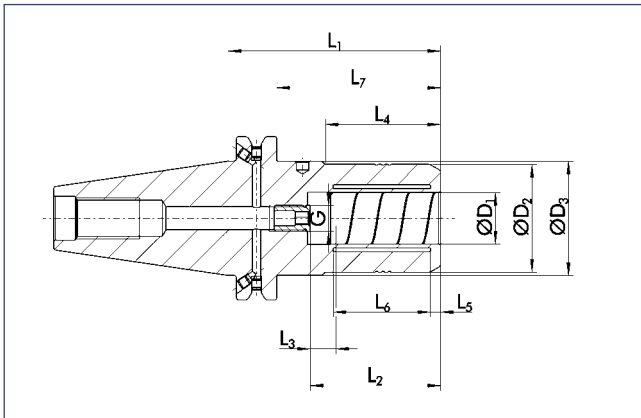
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**SINO-T CAT 40**

with axial length adjustment

**SINO-T CAT 40**

con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
3.0	≡													
4.0	≡													
6.0	≡													
8.0	≡													
10.0	≡													
12.0	0208914	•	30.0	44.45	73.1	46.0	10.0	32.0	4.0	31.0	54.0	M8x1	95.0	1.2
16.0	≡													
20.0	0208916	•	42.0	44.45	83.1	51.0	10.0	45.0	4.0	38.0	64.0	M10x1	295.0	1.4

≡ Additional sizes can be clamped with intermediate sleeves  
 • Can be supplied from stock

ORF Bore for data carrier as an option

i Bores on form B are sealed with set screws  
 Additional sizes and special designs available on request

≡ Para sujetar con casquillos intermedios  
 • Posible suministro de existencias

ORF Orificio para portador de datos como opción

i Orificios en forma B sellados con tornillos de fijación  
 Tamaños adicionales y diseños especiales disponibles a pedido



**Intermediate sleeves**  
see chapter accessories

**Casquillos intermedios**  
consulte el capítulo sobre accesorios



**Spanner wrenches**  
see chapter accessories

**Llaves de apriete**  
consulte el capítulo sobre accesorios



**"C"-spanners**  
see chapter accessories

**Llaves de gancho**  
consulte el capítulo sobre accesorios

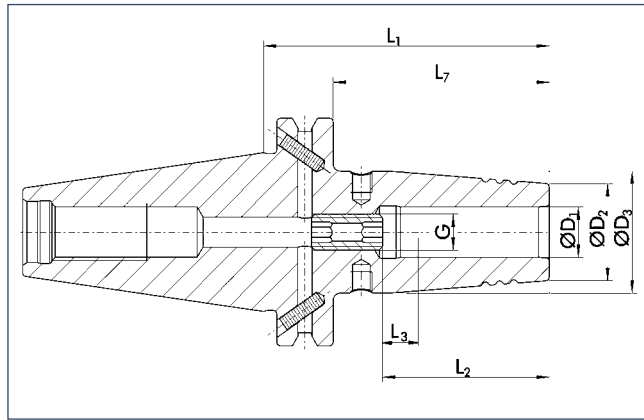


**Sleeve remover**  
see chapter accessories

**Extractor de casquillos**  
consulte el capítulo sobre accesorios

### CELSIO SSF CAT 40

with axial length adjustment



### CELSIO SSF CAT 40

con ajuste de la longitud axial



< 0.003 mm



15000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub>	ID	D <sub>2</sub>	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>7</sub>	G	M <sub>min</sub>	m
[inch]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]
1/4"	0208650	21.0	27.0	80.0	36.0	10.0	61.0	M5	20.0	1.0
1/4"	0208651	21.0	27.0	130.0	36.0	10.0	111.0	M5	20.0	1.2
1/4"	0208652	21.0	27.0	160.0	36.0	10.0	141.0	M5	20.0	1.4
5/16"	0208655	21.0	27.0	80.0	36.0	10.0	61.0	M6	52.0	1.0
5/16"	0208656	21.0	27.0	130.0	36.0	10.0	111.0	M6	52.0	1.2
5/16"	0208657	21.0	27.0	160.0	36.0	10.0	141.0	M6	52.0	1.4
3/8"	0208660	• 24.0	32.0	80.0	42.0	10.0	61.0	M8x1	70.0	1.0
3/8"	0208661	24.0	32.0	130.0	42.0	10.0	111.0	M8x1	70.0	1.3
3/8"	0208662	24.0	32.0	160.0	42.0	10.0	141.0	M8x1	70.0	1.6
7/16"	0208665	24.0	32.0	80.0	42.0	10.0	61.0	M8x1	150.0	1.0
7/16"	0208666	24.0	32.0	130.0	42.0	10.0	111.0	M8x1	150.0	1.3
7/16"	0208667	• 24.0	32.0	160.0	42.0	10.0	141.0	M8x1	150.0	1.6
1/2"	0208670	24.0	32.0	80.0	47.0	10.0	61.0	M10x1	150.0	1.0
1/2"	0208671	• 24.0	32.0	130.0	47.0	10.0	111.0	M10x1	150.0	1.3
1/2"	0208672	• 24.0	32.0	160.0	47.0	10.0	141.0	M10x1	150.0	1.6

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Additional sizes and special designs available on request

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

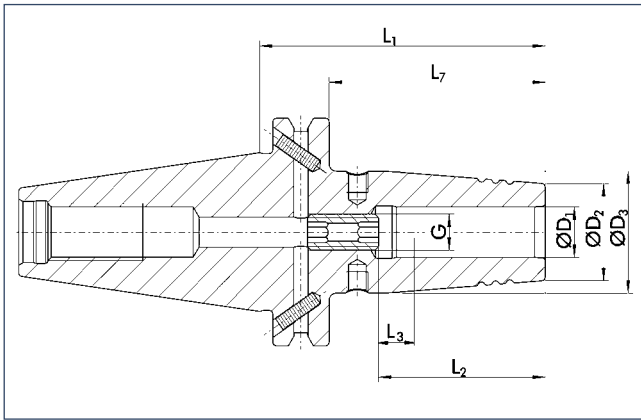
- Tamaños adicionales y diseños especiales disponibles a pedido

**CELSIO SSF CAT 40**

with axial length adjustment

**CELSIO SSF CAT 40**

con ajuste de la longitud axial



CAT



< 0.003 mm



15000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



**Technical data**

**Datos técnicos**

D <sub>1</sub> [inch]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
5/8"	0208675	27.0	34.0	80.0	50.0	10.0	61.0	M12x1	300.0	1.0
5/8"	0208676	27.0	34.0	130.0	50.0	10.0	111.0	M12x1	300.0	1.4
5/8"	0208677	27.0	34.0	160.0	50.0	10.0	141.0	M12x1	300.0	1.6
3/4"	0208680	33.0	42.0	80.0	52.0	10.0	61.0	M16x1	420.0	1.2
3/4"	0208681	33.0	42.0	130.0	52.0	10.0	111.0	M16x1	420.0	1.5
3/4"	0208682	33.0	42.0	160.0	52.0	10.0	141.0	M16x1	420.0	1.9
1"	0208685	• 44.0	53.0	100.0	58.0	10.0	81.0	M16x1	550.0	1.6
1"	0208686	44.0	53.0	130.0	58.0	10.0	111.0	M16x1	550.0	1.8
1"	0208687	44.0	53.0	160.0	58.0	10.0	141.0	M16x1	550.0	2.5
1 1/4"	0208690	44.0	53.0	100.0	58.0	10.0	81.0	M16x1	600.0	1.5
1 1/4"	0208691	44.0	53.0	130.0	58.0	10.0	111.0	M16x1	600.0	1.7
1 1/4"	0208692	44.0	53.0	160.0	58.0	10.0	141.0	M16x1	600.0	1.9

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

Additional sizes and special designs available on request

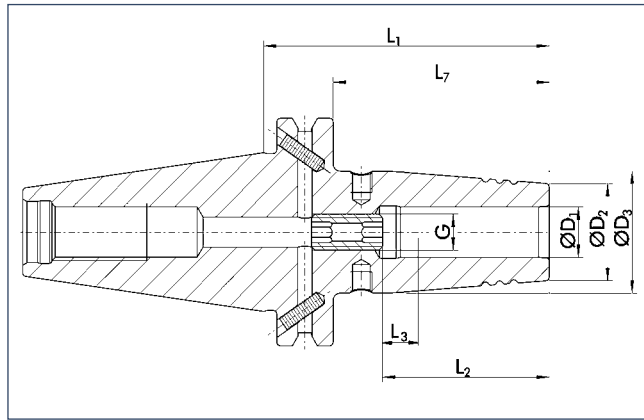
- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

Tamaños adicionales y diseños especiales disponibles a pedido

### CELSIO SSF CAT 40

with axial length adjustment



### CELSIO SSF CAT 40

con ajuste de la longitud axial



< 0.003 mm



15000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
6.0	0208600	21.0	27.0	80.0	36.0	10.0	61.0	M5	20.0	1.0
6.0	0208601	21.0	27.0	130.0	36.0	10.0	111.0	M5	20.0	1.2
6.0	0208602	21.0	27.0	160.0	36.0	10.0	141.0	M5	20.0	1.4
8.0	0208605	21.0	27.0	80.0	36.0	10.0	61.0	M6	52.0	1.0
8.0	0208606	21.0	27.0	130.0	36.0	10.0	111.0	M6	52.0	1.2
8.0	0208607	21.0	27.0	160.0	36.0	10.0	141.0	M6	52.0	1.4
10.0	0208610	• 24.0	32.0	80.0	42.0	10.0	61.0	M8x1	70.0	1.0
10.0	0208611	• 24.0	32.0	130.0	42.0	10.0	111.0	M8x1	70.0	1.3
10.0	0208612	• 24.0	32.0	160.0	42.0	10.0	141.0	M8x1	70.0	1.6
12.0	0208615	• 24.0	32.0	80.0	47.0	10.0	61.0	M10x1	150.0	1.0
12.0	0208616	• 24.0	32.0	130.0	47.0	10.0	111.0	M10x1	150.0	1.3
12.0	0208617	• 24.0	32.0	160.0	47.0	10.0	141.0	M10x1	150.0	1.6

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Additional sizes and special designs available on request

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

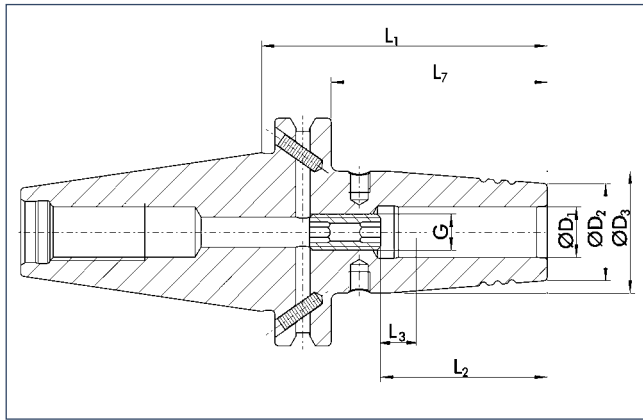
- Tamaños adicionales y diseños especiales disponibles a pedido

**CELSIO SSF CAT 40**

with axial length adjustment

**CELSIO SSF CAT 40**

con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
16.0	0208625	• 27.0	34.0	80.0	50.0	10.0	61.0	M12x1	300.0	1.0
16.0	0208626	• 27.0	34.0	130.0	50.0	10.0	111.0	M12x1	300.0	1.4
16.0	0208627	27.0	34.0	160.0	50.0	10.0	141.0	M12x1	300.0	1.6
18.0	0208630	33.0	42.0	80.0	50.0	10.0	61.0	M12x1	370.0	1.2
18.0	0208631	33.0	42.0	130.0	50.0	10.0	111.0	M12x1	370.0	1.5
18.0	0208632	33.0	42.0	160.0	50.0	10.0	141.0	M12x1	370.0	1.7
20.0	0208635	33.0	42.0	80.0	52.0	10.0	61.0	M16x1	420.0	1.2
20.0	0208636	33.0	42.0	130.0	52.0	10.0	111.0	M16x1	420.0	1.5
20.0	0208637	33.0	42.0	160.0	52.0	10.0	141.0	M16x1	420.0	1.9
25.0	0208640	• 44.0	53.0	100.0	58.0	10.0	81.0	M16x1	550.0	1.6
25.0	0208641	44.0	53.0	130.0	58.0	10.0	111.0	M16x1	550.0	1.8
25.0	0208642	• 44.0	53.0	160.0	58.0	10.0	141.0	M16x1	550.0	2.5
32.0	0208645	44.0	53.0	100.0	58.0	10.0	81.0	M16x1	600.0	1.5
32.0	0208646	44.0	53.0	130.0	58.0	10.0	111.0	M16x1	600.0	1.7
32.0	0208647	44.0	53.0	160.0	58.0	10.0	141.0	M16x1	600.0	1.9

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

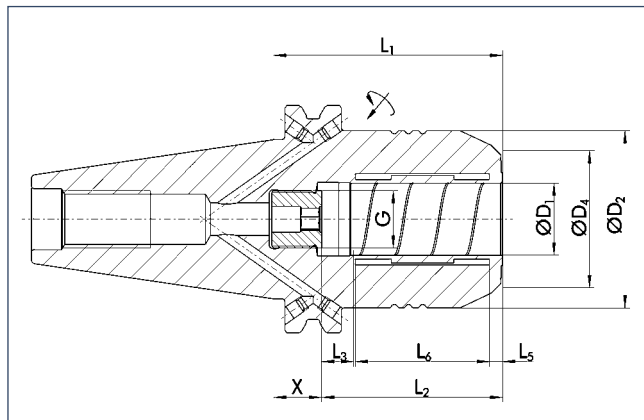
- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

Additional sizes and special designs available on request

Tamaños adicionales y diseños especiales disponibles a pedido

### TENDO SDF CAT 50

short, rigid design  
with axial length adjustment



### TENDO SDF CAT 50

corto, diseño rígido  
con ajuste de la longitud axial



<math>< 0.003 \text{ mm}</math>



25000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



✓



✓



✓

#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1/8"	≡												
3/16"	≡												
1/4"	0203942	•	69.9	25.7	44.0	81.0	37.0	10.0	3.6	20.5	M5	17.0	2.4
5/16"	≡												
3/8"	0203943	•	69.9	36.2	40.0	81.0	41.0	10.0	3.6	25.5	M6	45.0	2.4
7/16"	≡												
1/2"	0203944	•	69.9	46.2	35.0	81.0	46.0	10.0	3.6	30.5	M10x1	95.0	2.4
9/16"	≡												
5/8"	0203945	•	69.9	46.0	32.0	81.0	49.0	10.0	3.6	35.0	M10x1	185.0	2.4
11/16"	≡												
3/4"	0203946	•	69.9	55.5	30.0	81.0	51.0	10.0	3.7	37.8	M10x1	310.0	2.5
13/16"	≡												
7/8"	≡												
15/16"	≡												
1"	0203949	•	69.9	55.5	24.0	81.0	57.0	10.0	4.2	42.3	M16x1	400.0	2.5
1 1/4"	0203947	•	69.9	55.5	20.0	81.0	61.0	10.0	4.2	47.7	M16x1	650.0	4.1

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

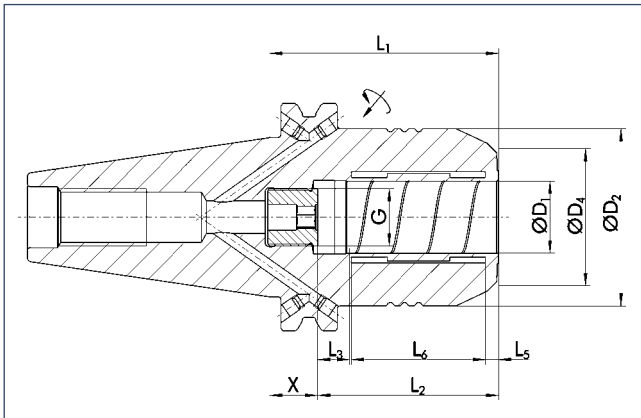
- 📄 Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

**TENDO SDF CAT 50**

short, rigid design  
with axial length adjustment

**TENDO SDF CAT 50**

corto, diseño rígido  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>4</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
6.0	0203981	• 69.9	25.7	44.0	81.0	37.0	10.0	3.6	20.5	M5	16.0	2.4
8.0	☰											
10.0	0203983	• 69.9	36.2	40.0	81.0	41.0	10.0	3.6	25.5	M6	45.0	2.4
12.0	0203984	• 69.9	46.2	35.0	81.0	46.0	10.0	3.6	30.5	M10x1	90.0	2.4
14.0	0203989	• 69.9	46.2	35.0	81.0	47.5	10.0	3.6	30.5	M10x1	110.0	2.4
16.0	0203985	• 69.9	45.5	32.0	81.0	49.0	10.0	3.6	35.0	M10x1	185.0	2.4
18.0	☰											
20.0	0203986	• 69.9	55.5	30.0	81.0	51.0	10.0	3.7	37.8	M10x1	330.0	2.5
25.0	0203987	• 69.9	55.5	24.0	81.0	57.0	10.0	4.2	42.3	M16x1	400.0	2.5
32.0	0203988	• 69.9	55.5	20.0	81.0	61.0	10.0	4.2	47.7	M16x1	650.0	4.1

☰ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

🔧 Design suitable for MQL operations available on request  
📄 Bore for data carrier as an option

📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

☰ Para sujetar con casquillos intermedios  
• Posible suministro de existencias

🔧 Diseño apto para operaciones MQL disponible a pedido  
📄 Orificio para portador de datos como opción

📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

**Intermediate sleeves**  
see chapter accessories  
**Casquillos intermedios**  
consulte el capítulo sobre accesorios

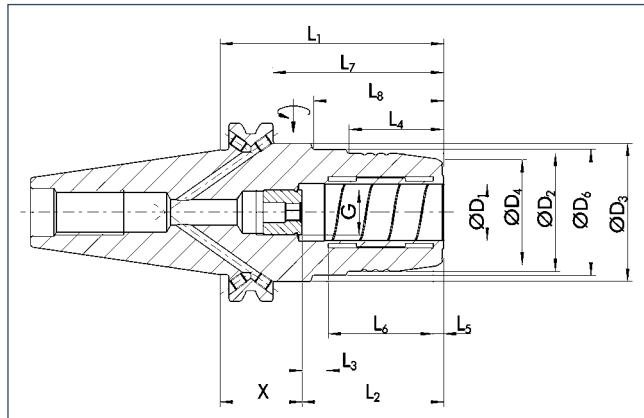
**Sleeve remover**  
see chapter accessories  
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**Further accessories**  
see chapter accessories  
**Accesorios adicionales**  
consulte el capítulo sobre accesorios



### TENDO SDF-KS CAT 50

short, slim design  
with axial length adjustment



### TENDO SDF-KS CAT 50

corto, diseño delgado  
con ajuste de la longitud axial



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	D <sub>6</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1/8"	≡																	
3/16"	≡																	
1/4"	0204650	•	26.0	69.9	21.7	50.25	64.6	101.6	37.0	10.0	32.5	3.6	20.5	82.55	60.5	M5	17.0	2.7
5/16"	≡																	
3/8"	0204652	•	30.0	69.9	26.7	50.25	60.6	101.6	41.0	10.0	36.0	3.6	25.5	82.55	60.5	M6	45.0	2.7
7/16"	≡																	
1/2"	0204653	•	32.0	69.9	27.7	50.25	55.6	101.6	46.0	10.0	41.5	3.6	30.5	82.55	60.5	M10x1	95.0	2.7
9/16"	≡																	
5/8"	0204654	•	38.0	69.9	33.7	50.25	52.6	101.6	49.0	10.0	47.5	3.6	35.0	82.55	60.5	M10x1	185.0	2.7
11/16"	≡																	
3/4"	0204655	•	42.0	69.9	37.7	50.25	50.6	101.6	51.0	10.0	49.5	3.7	37.8	82.55	60.5	M10x1	310.0	2.8
13/16"	≡																	
7/8"	≡																	
15/16"	≡																	
1"	0204656	•	57.0	69.9	52.8	63.0	44.6	101.6	57.0	10.0	49.5	4.2	42.3	82.55	64.0	M16x1	400.0	2.8
1 1/4"	0204657	•	64.0	69.9	59.7		40.6	101.6	61.0	10.0	65.0	4.2	47.7	82.55		M16x1	650.0	4.1

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

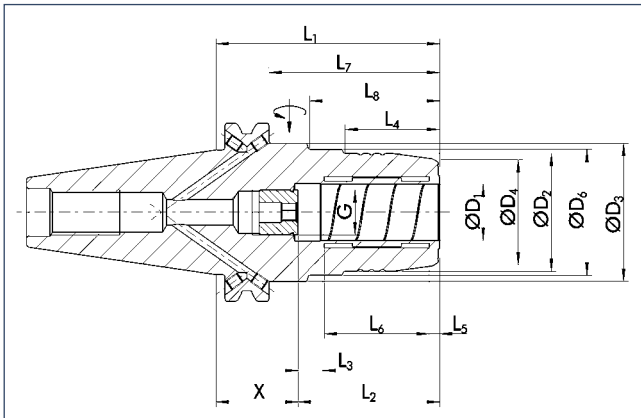
- 📄 Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

**TENDO SDF-KS CAT 50**

short, slim design  
with axial length adjustment

**TENDO SDF-KS CAT 50**

corto, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	D <sub>6</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
6.0	0204661	• 26.0	69.9	21.7	50.25	64.6	101.6	37.0	10.0	32.5	3.6	20.5	82.55	60.5	M5	16.0	2.7
8.0	☰																
10.0	0204663	• 30.0	69.9	26.7	50.25	60.6	101.6	41.0	10.0	36.0	3.6	25.5	82.55	60.5	M6	45.0	2.7
12.0	0204664	• 32.0	69.9	27.7	50.25	55.6	101.6	46.0	10.0	41.5	3.6	30.5	82.55	60.5	M10x1	90.0	2.7
14.0	0204669	• 34.0	69.9	29.7	50.25	55.6	101.6	46.0	10.0	41.5	3.6	30.5	82.55	60.5	M10x1	110.0	2.7
16.0	0204665	• 38.0	69.9	33.7	50.25	52.6	101.6	49.0	10.0	47.5	3.6	35.0	82.55	60.5	M10x1	185.0	2.7
18.0	☰																
20.0	0204666	• 42.0	69.9	37.7	50.25	50.6	101.6	51.0	10.0	49.5	3.7	37.8	82.55	60.5	M10x1	330.0	2.8
25.0	0204667	• 57.0	69.9	52.8	63.0	44.6	101.6	57.0	10.0	49.5	4.2	42.3	82.55	64.0	M16x1	400.0	2.8
32.0	0204668	• 64.0	69.9	59.7		40.6	101.6	61.0	10.0	65.0	4.2	47.7	82.55		M16x1	650.0	4.1

☰ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

🔧 Design suitable for MQL operations available on request  
📄 Bore for data carrier as an option

📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

☰ Para sujetar con casquillos intermedios  
• Posible suministro de existencias

🔧 Diseño apto para operaciones MQL disponible a pedido  
📄 Orificio para portador de datos como opción

📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

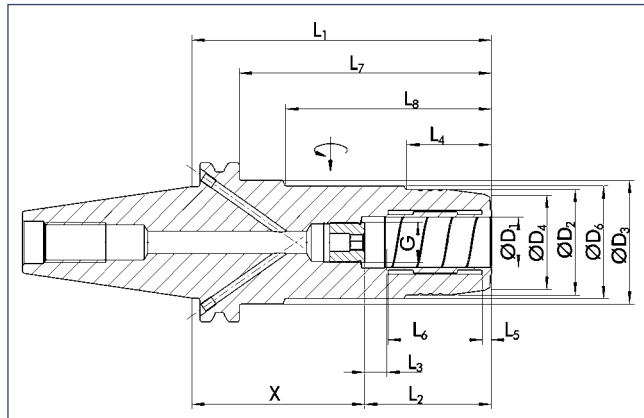
**Intermediate sleeves**  
see chapter accessories  
**Casquillos intermedios**  
consulte el capítulo sobre accesorios

**Sleeve remover**  
see chapter accessories  
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**Further accessories**  
see chapter accessories  
**Accesorios adicionales**  
consulte el capítulo sobre accesorios

### TENDO SDF-LS CAT 50

long, slim design  
with axial length adjustment



### TENDO SDF-LS CAT 50

largo, diseño delgado  
con ajuste de la longitud axial



< 0.003 mm



25000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



✓



✓



✓

#### Technical data

#### Datos técnicos

D <sub>1</sub>	ID	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>6</sub>	X	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub>	L <sub>8</sub>	G	M <sub>min</sub>	m
[inch]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]
1/8"	≡																
3/16"	≡																
1/4"	0204670	• 26.0	69.9	21.7	50.25	115.4	152.4	37.0	10.0	32.5	3.6	20.5	133.3	110.5	M5	17.0	2.7
5/16"	≡																
3/8"	0204672	• 30.0	69.9	26.7	50.25	111.4	152.4	41.0	10.0	36.5	3.6	25.5	133.3	110.5	M6	45.0	2.7
7/16"	≡																
1/2"	0204673	• 32.0	69.9	27.7	50.25	106.4	152.4	46.0	10.0	41.5	3.6	30.5	133.3	110.5	M10x1	95.0	2.7
9/16"	≡																
5/8"	0204674	• 38.0	69.9	33.7	50.25	103.4	152.4	49.0	10.0	47.5	3.6	35.0	133.3	110.5	M10x1	185.0	2.7
11/16"	≡																
3/4"	0204675	• 42.0	69.9	37.7	50.25	101.4	152.4	51.0	10.0	49.5	3.7	37.8	133.3	110.5	M10x1	310.0	2.8
13/16"	≡																
7/8"	≡																
15/16"	≡																
1"	0204676	• 57.0	69.9	52.8	63.0	95.4	152.4	57.0	10.0	49.5	4.2	42.3	133.3	115.0	M16x1	400.0	2.8
1 1/4"	0204677	• 64.0	69.9	59.7		91.4	152.4	61.0	10.0	114.5	4.2	47.7	133.3		M16x1	650.0	4.1

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

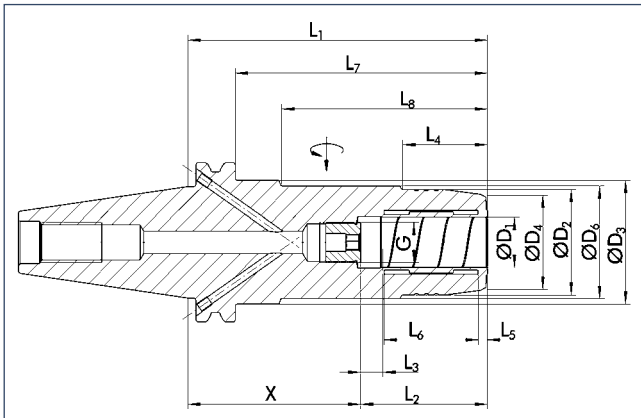
- 📄 Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

**TENDO SDF-LS CAT 50**

long, slim design  
with axial length adjustment

**TENDO SDF-LS CAT 50**

largo, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4</sub> [mm]	D <sub>6</sub> [mm]	X [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>5</sub> [mm]	L <sub>6</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
6.0	0204681	•	26.0	69.9	21.7	50.25	115.4	152.4	37.0	10.0	32.5	3.6	20.5	133.3	110.5	M5	16.0	2.7
8.0	☰																	
10.0	0204683	•	30.0	69.9	27.7	50.25	111.4	152.4	41.0	10.0	36.0	3.6	25.5	133.3	110.5	M6	45.0	2.7
12.0	0204684	•	32.0	69.9	27.7	50.25	106.4	152.4	46.0	10.0	41.5	3.6	30.5	133.3	110.5	M10x1	90.0	2.7
14.0	0204689	•	34.0	69.9	29.7	50.25	106.4	152.4	46.0	10.0	41.5	3.6	30.5	133.3	110.5	M10x1	110.0	2.7
16.0	0204685	•	38.0	69.9	33.7	50.25	103.4	152.4	49.0	10.0	47.5	3.6	35.0	133.3	110.5	M10x1	185.0	2.7
18.0	☰																	
20.0	0204686	•	42.0	69.9	37.7	50.25	101.4	152.4	51.0	10.0	49.5	3.7	37.8	133.3	110.5	M10x1	330.0	2.8
25.0	0204687	•	57.0	69.9	52.8	63.0	95.4	152.4	57.0	10.0	49.5	4.2	42.3	133.3	115.0	M16x1	400.0	2.8
32.0	0204688	•	64.0	69.9	59.7		91.4	152.4	61.0	10.0	115.0	4.2	47.7	133.3		M16x1	650.0	4.1

☰ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

☑ Design suitable for MQL operations available on request  
☑ Bore for data carrier as an option

ⓘ Bores on form B are sealed with set screws  
Additional sizes and special designs available on request

☰ Para sujetar con casquillos intermedios  
• Posible suministro de existencias

☑ Diseño apto para operaciones MQL disponible a pedido  
☑ Orificio para portador de datos como opción

ⓘ Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

**Intermediate sleeves**  
see chapter accessories  
**Casquillos intermedios**  
consulte el capítulo sobre accesorios

**Sleeve remover**  
see chapter accessories  
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

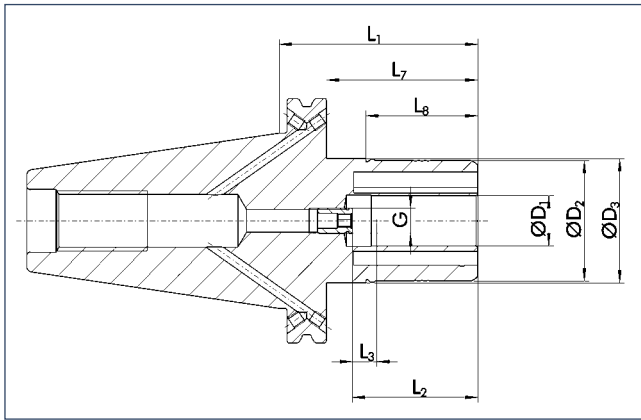
**Further accessories**  
see chapter accessories  
**Accesorios adicionales**  
consulte el capítulo sobre accesorios

### TRIBOS SPF-R CAT 50

short, rigid design  
with axial length adjustment

### TRIBOS SPF-R CAT 50

corto, diseño rígido  
con ajuste de la longitud axial



< 0.003 mm



12000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
1/8"	≡												
3/16"	≡												
1/4"	≡												
5/16"	≡												
3/8"	0233781	•	35.0	69.85	90.0	42.0	10.0	71.0	40.0	M6	20.0	3.99	0201982
7/16"	≡												
1/2"	0233782	•	48.0	69.85	90.0	47.0	10.0	71.0	45.0	M8x1	50.0	3.99	0201984
9/16"	≡												
5/8"	0233783	•	48.0	69.85	90.0	48.0	10.0	71.0	45.0	M10x1	110.0	4.09	0201984
11/16"	≡												
3/4"	0233784	•	48.0	69.85	90.0	52.0	10.0	71.0	45.0	M10x1	200.0	4.09	0201984
13/16"	≡												
7/8"	≡												
15/16"	≡												
1"	0233786	•	60.0	69.85	90.0	57.0	10.0	71.0	45.0	M10x1	270.0	4.13	0201921
1 1/4"	0233785	•	67.0	69.85	90.0	61.0	10.0	71.0	45.0	M10x1	330.0	4.39	0201922

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

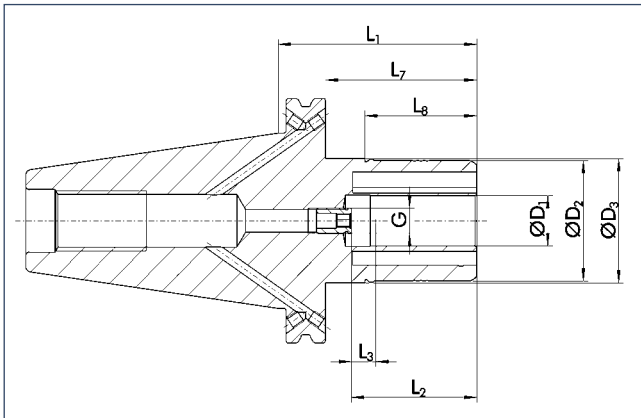
- 📄 Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

**TRIBOS SPF-R CAT 50**

short, rigid design  
with axial length adjustment

**TRIBOS SPF-R CAT 50**

corto, diseño rígido  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
6.0	≡												
8.0	≡												
10.0	0235923	•	35.0	69.85	90.0	42.0	10.0	71.0	40.0	M8x1	24.0	3.49	0201982
12.0	0235924	•	42.0	69.85	90.0	47.0	10.0	71.0	45.0	M8x1	40.0	3.49	0201983
14.0	0235929	•	48.0	69.85	90.0	47.0	10.0	71.0	45.0	M10x1	80.0	3.58	0201984
16.0	0235925	•	48.0	69.85	90.0	48.0	10.0	71.0	45.0	M10x1	120.0	3.58	0201984
18.0	0235920	•	48.0	69.85	90.0	48.0	10.0	71.0	45.0	M10x1	180.0	3.58	0201984
20.0	0235926	•	48.0	69.85	90.0	52.0	10.0	71.0	45.0	M10x1	240.0	3.58	0201984
25.0	0235927	•	60.0	69.85	90.0	57.0	10.0	71.0	45.0	M10x1	270.0	3.86	0201921
32.0	0235928	•	67.0	69.85	90.0	61.0	10.0	71.0	45.0	M10x1	350.0	4.13	0201922

≡ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

🔧 Design suitable for MQL operations available on request  
📄 Bore for data carrier as an option

📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

≡ Para sujetar con casquillos intermedios  
• Posible suministro de existencias

🔧 Diseño apto para operaciones MQL disponible a pedido  
📄 Orificio para portador de datos como opción

📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

**Tool extensions**  
see chapter accessories  
**Extensiones de herramientas**  
consulte el capítulo sobre accesorios

**Clamping devices**  
see chapter accessories  
**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios

**Reduction inserts**  
see chapter accessories  
**Insertos de reducción**  
consulte el capítulo sobre accesorios

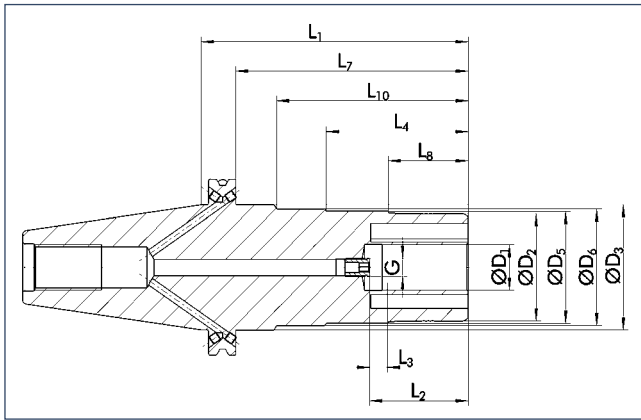
**Length measuring devices**  
see chapter accessories  
**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

### TRIBOS SPF-R CAT 50 L<sub>1</sub>=150

long, rigid design  
with axial length adjustment

### TRIBOS SPF-R CAT 50 L<sub>1</sub>=150

largo, diseño rígido  
con ajuste de la longitud axial



<math>< 0.006 \text{ mm}</math>



12000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub>			D <sub>2</sub>	D <sub>3</sub>	D <sub>5</sub>	D <sub>6</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>7</sub>	L <sub>8</sub>	L <sub>10</sub>	G	M <sub>min</sub>	m	SRE
[inch]	ID		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]	ID
1/8"	≡																
3/16"	≡																
1/4"	≡																
5/16"	≡																
3/8"	0235053	•	35.0	69.85	37.5	50.5	150.0	42.0	10.0	80.0	131.0	40.0	108.0	M6	18.0	3.49	0201982
7/16"	≡																
1/2"	0235054	•	48.0	69.85	50.5		150.0	47.0	10.0		131.0	45.0	108.0	M8x1	45.0	3.58	0201984
9/16"	≡																
5/8"	0235055	•	48.0	69.85	50.5		150.0	48.0	10.0		131.0	45.0	108.0	M10x1	110.0	3.58	0201984
11/16"	≡																
3/4"	0235056	•	48.0	69.85	50.5		150.0	52.0	10.0		131.0	45.0	108.0	M10x1	200.0	3.58	0201984
13/16"	≡																
7/8"	≡																
15/16"	≡																
1"	0235057	•	60.0	69.85	62.5		150.0	57.0	10.0		131.0	45.0	112.0	M10x1	270.0	4.13	0201921
1 1/4"	0235058	•	67.0	69.85			150.0	61.0	10.0		131.0	45.0		M10x1	350.0	4.13	0201922

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ☑ Design suitable for MQL operations available on request
- ☑ Bore for data carrier as an option

- ℹ Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- ☑ Diseño apto para operaciones MQL disponible a pedido
- ☑ Orificio para portador de datos como opción

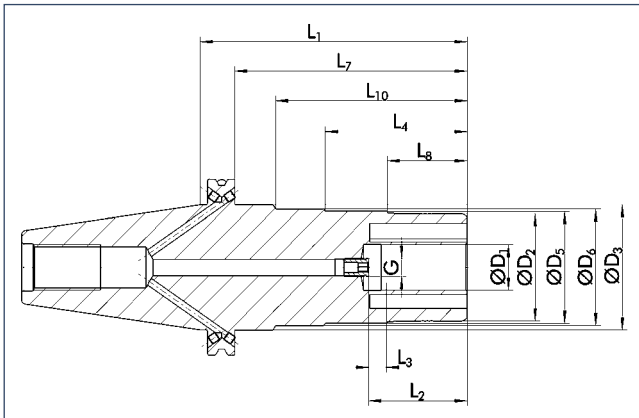
- ℹ Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

**TRIBOS SPF-R CAT 50 L<sub>1</sub>=150**

long, rigid design  
with axial length adjustment

**TRIBOS SPF-R CAT 50 L<sub>1</sub>=150**

largo, diseño rígido  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	D <sub>6</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	L <sub>10</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
6.0	≡																
8.0	≡																
10.0	0235463	•	35.0	69.85	37.5	50.5	150.0	42.0	10.0		131.0	40.0	80.0	M8x1	25.0	4.76	0201982
12.0	0235464	•	42.0	69.85	44.5	50.5	150.0	47.0	10.0		131.0	45.0	108.0	M8x1	40.0	4.76	0201983
14.0	0235469	•	48.0	69.85	50.5		150.0	47.0	10.0		131.0	45.0	108.0	M10x1	80.0	4.9	0201984
16.0	0235465	•	48.0	69.85	50.5		150.0	48.0	10.0		131.0	45.0	108.0	M10x1	120.0	4.9	0201984
18.0	0235460	•	48.0	69.85	50.5		150.0	48.0	10.0		131.0	45.0	108.0	M10x1	180.0	4.9	0201984
20.0	0235466	•	48.0	69.85	50.5		150.0	52.0	10.0		131.0	45.0	108.0	M10x1	240.0	4.9	0201984
25.0	0235467	•	60.0	69.85	62.5		150.0	57.0	10.0		131.0	45.0	112.0	M10x1	270.0	5.17	0201921
32.0	0235468	•	67.0	69.85			150.0	61.0	10.0		131.0	88.0		M10x1	350.0	5.26	0201922

≡ Additional sizes can be clamped with intermediate sleeves  
• Can be supplied from stock

🔧 Design suitable for MQL operations available on request  
📄 Bore for data carrier as an option

📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

≡ Para sujetar con casquillos intermedios  
• Posible suministro de existencias

🔧 Diseño apto para operaciones MQL disponible a pedido  
📄 Orificio para portador de datos como opción

📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido

**Tool extensions**  
see chapter accessories  
**Extensiones de herramientas**  
consulte el capítulo sobre accesorios

**Clamping devices**  
see chapter accessories  
**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios

**Reduction inserts**  
see chapter accessories  
**Insertos de reducción**  
consulte el capítulo sobre accesorios

**Length measuring devices**  
see chapter accessories  
**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

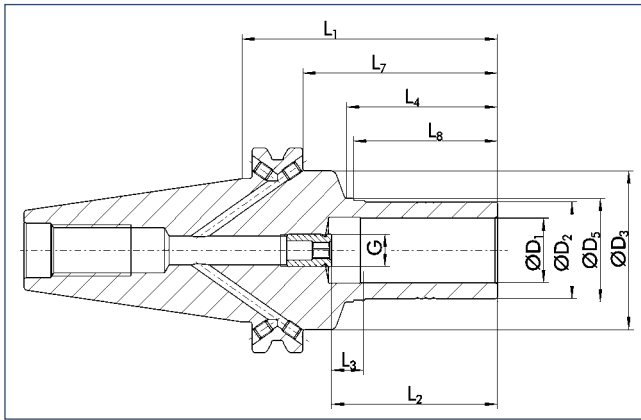


### TRIBOS SPF-S CAT 50

short, slim design  
with axial length adjustment

### TRIBOS SPF-S CAT 50

corto, diseño delgado  
con ajuste de la longitud axial



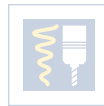
< 0.003 mm



12000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
1/8"	≡														
3/16"	≡														
1/4"	≡														
5/16"	≡														
3/8"	0205433	•	15.0	69.85	17.1	95.0	42.0	10.0	42.0	76.0	40.0	M6	20.0	3.79	0201989
7/16"	≡														
1/2"	0205434	•	20.0	69.85	22.1	95.0	47.0	10.0	49.0	76.0	45.0	M8x1	40.0	3.84	0201991
9/16"	≡														
5/8"	0205435	•	25.0	69.85	27.1	95.0	48.0	10.0	49.0	76.0	45.0	M10x1	70.0	3.89	0201977
3/4"	0205436	•	29.0	69.85	31.1	95.0	52.0	10.0	49.0	76.0	45.0	M10x1	120.0	3.99	0201992
1"	0205437	•	36.5	69.85	38.1	95.0	57.0	10.0	52.0	76.0	45.0	M10x1	200.0	4.19	0201993

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- ☑ Design suitable for MQL operations available on request
- ☑ Bore for data carrier as an option

- ℹ Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- ☑ Diseño apto para operaciones MQL disponible a pedido
- ☑ Orificio para portador de datos como opción

- ℹ Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter accessories

**Extensiones de herramientas**  
consulte el capítulo sobre accesorios



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios



**Length measuring devices**  
see chapter accessories

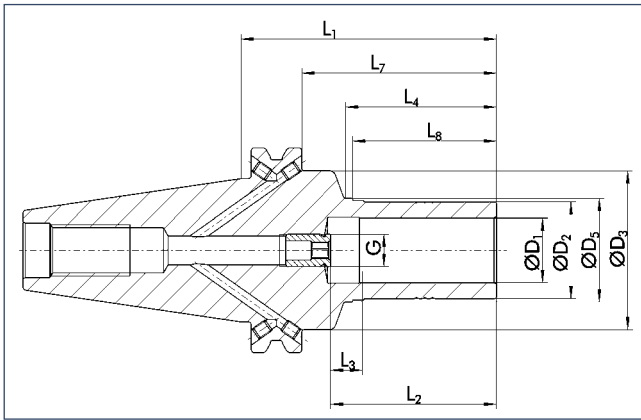
**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

**TRIBOS SPF-S CAT 50**

short, slim design  
with axial length adjustment

**TRIBOS SPF-S CAT 50**

corto, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
10.0	0205913	•	16.0	69.85	18.1	95.0	42.0	10.0	42.0	76.0	40.0	M8x1	20.0	3.79	0201974
12.0	0205914	•	19.0	69.85	21.1	95.0	47.0	10.0	49.0	76.0	45.0	M8x1	30.0	3.84	0201975
14.0	0205919	•	22.0	69.85	24.1	95.0	47.0	10.0	49.0	76.0	45.0	M10x1	50.0	3.86	0201976
16.0	0205915	•	25.0	69.85	27.1	95.0	48.0	10.0	49.0	76.0	45.0	M10x1	70.0	3.89	0201977
18.0	0205910	•	28.0	69.85	30.1	95.0	48.0	10.0	49.0	76.0	45.0	M10x1	100.0	3.91	0201979
20.0	0205916	•	30.0	69.85	32.1	95.0	52.0	10.0	49.0	76.0	45.0	M10x1	150.0	3.99	0201981
25.0	0205917	•	36.0	69.85	38.1	95.0	57.0	10.0	52.0	76.0	45.0	M10x1	200.0	4.19	0201987
32.0	0205918	•	45.0	69.85	47.1	95.0	61.0	10.0	52.0	76.0	45.0	M10x1	280.0	4.42	0201998

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock
- 🔧 Design suitable for MQL operations available on request
- 📄 Bore for data carrier as an option
- 📄 Bore on form B are sealed with set screws  
Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias
- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 📄 Orificio para portador de datos como opción
- 📄 Orificios en forma B sellados con tornillos de fijación  
Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter accessories

**Extensiones de herramientas**  
consulte el capítulo sobre accesorios



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios

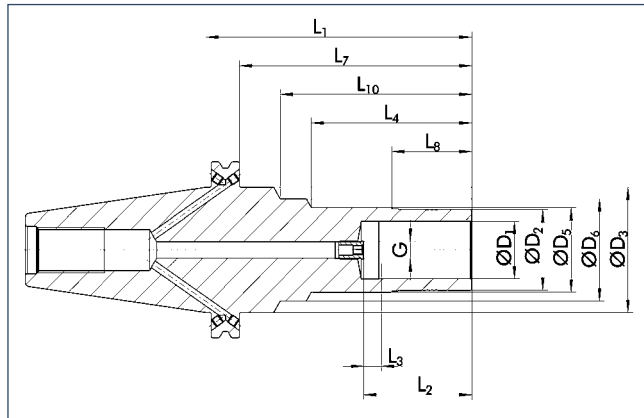


**Length measuring devices**  
see chapter accessories

**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

### TRIBOS SPF-S CAT 50 L<sub>1</sub>=150

long, slim design  
with axial length adjustment



### TRIBOS SPF-S CAT 50 L<sub>1</sub>=150

largo, diseño delgado  
con ajuste de la longitud axial



#### Technical data

#### Datos técnicos

D <sub>1</sub> [inch]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	D <sub>6</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	L <sub>10</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
1/8"	≡																
3/16"	≡																
1/4"	≡																
5/16"	≡																
3/8"	0205493	•	15.0	69.85	18.5	50.5	150.0	42.0	10.0	82.0	131.0	40.0	108.0	M8x1	20.0	3.27	0201989
7/16"	≡																
1/2"	0205494	•	20.0	69.85	22.5	50.5	150.0	47.0	10.0	82.0	131.0	45.0	108.0	M8x1	40.0	3.31	0201991
9/16"	≡																
5/8"	0205495	•	25.0	69.85	27.5	50.5	150.0	48.0	10.0	82.0	131.0	45.0	108.0	M10x1	70.0	3.4	0201977
11/16"	≡																
3/4"	0205496	•	29.0	69.85	32.5	50.5	150.0	52.0	10.0	82.0	131.0	45.0	108.0	M10x1	120.0	3.4	0201992
13/16"	≡																
7/8"	≡																
15/16"	≡																
1"	0205497	•	36.5	69.85	38.5	50.5	150.0	57.0	10.0	91.0	131.0	45.0	108.0	M10x1	200.0	3.49	0201993
1 1/4"	0205498	•	45.0	69.85	50.5		150.0	61.0	10.0	108.0	131.0	45.0		M10x1	250.0	3.49	0201998

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- 🔧 Design suitable for MQL operations available on request
- 🔧 Bore for data carrier as an option

- 📄 Bore on form B are sealed with set screws
- Additional sizes and special designs available on request

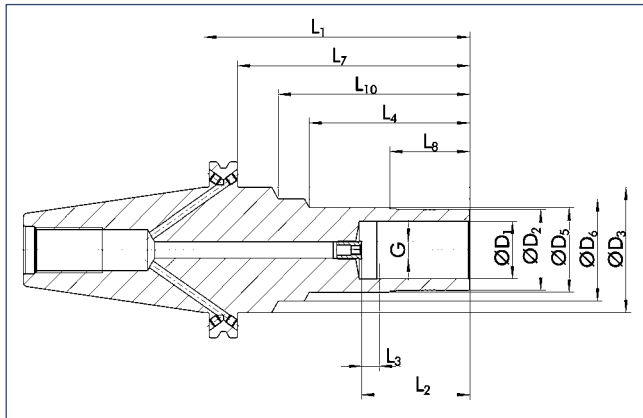
- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

- 🔧 Diseño apto para operaciones MQL disponible a pedido
- 🔧 Orificio para portador de datos como opción

- 📄 Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido

**TRIBOS SPF-S CAT 50 L<sub>1</sub>=150**

long, slim design  
with axial length adjustment



**TRIBOS SPF-S CAT 50 L<sub>1</sub>=150**

largo, diseño delgado  
con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID		D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	D <sub>5</sub> [mm]	D <sub>6</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	L <sub>10</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]	SRE ID
10.0	0205443	•	15.0	69.85	18.5	50.5	150.0	42.0	10.0	82.0	131.0	40.0	108.0	M8x1	20.0	3.22	0201974
12.0	0205444	•	19.0	69.85	22.5	50.5	150.0	47.0	10.0	82.0	131.0	45.0	108.0	M8x1	30.0	3.27	0201975
14.0	0205449	•	22.0	69.85	24.5	50.5	150.0	47.0	10.0	82.0	131.0	45.0	108.0	M10x1	50.0	3.31	0201976
16.0	0205445	•	25.0	69.85	27.5	50.5	150.0	48.0	10.0	82.0	131.0	45.0	108.0	M10x1	70.0	3.31	0201977
18.0	0205440	•	28.0	69.85	29.5	50.5	150.0	48.0	10.0	82.0	131.0	45.0	108.0	M10x1	100.0	3.31	0201979
20.0	0205446	•	30.0	69.85	32.5	50.5	150.0	52.0	10.0	82.0	131.0	45.0	108.0	M10x1	150.0	3.31	0201981
25.0	0205447	•	36.0	69.85	38.5	50.5	150.0	57.0	10.0	91.0	131.0	45.0	108.0	M10x1	200.0	3.4	0201987
32.0	0205448	•	45.0	69.85	50.5		150.0	61.0	10.0	108.0	131.0	45.0		M10x1	280.0	3.49	0201998

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

- Bores on form B are sealed with set screws
- Additional sizes and special designs available on request

- Orificios en forma B sellados con tornillos de fijación
- Tamaños adicionales y diseños especiales disponibles a pedido



**Tool extensions**  
see chapter accessories

**Extensiones de herramientas**  
consulte el capítulo sobre accesorios



**Clamping devices**  
see chapter accessories

**Dispositivos de sujeción**  
consulte el capítulo sobre accesorios



**Reduction inserts**  
see chapter accessories

**Insertos de reducción**  
consulte el capítulo sobre accesorios



**Length measuring devices**  
see chapter accessories

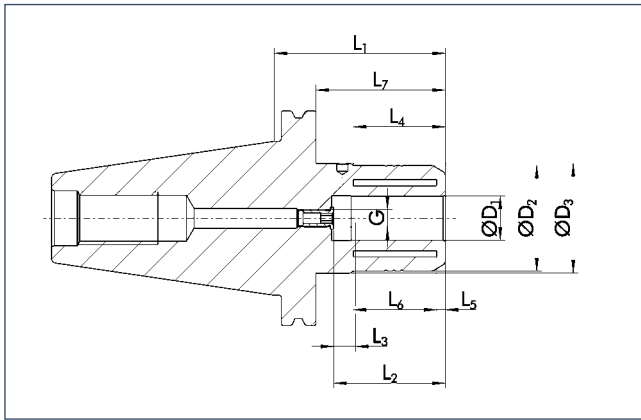
**Disp. de medición de la longitud**  
consulte el capítulo sobre accesorios

### SINO-R CAT 50

with axial length adjustment

### SINO-R CAT 50

con ajuste de la longitud axial



≤ 0.005 mm



40000 min<sup>-1</sup>



25000 min<sup>-1</sup>



✓



✓



✓



✓



✓

#### Technical data

#### Datos técnicos

D <sub>1</sub>	ID		D <sub>2</sub>	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	L <sub>7</sub>	G	M <sub>min</sub>	m
[inch]			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]
1/4"	≡													
5/16"	≡													
3/8"	≡													
7/16"	≡													
1/2"	≡													
9/16"	≡													
5/8"	≡													
3/4"	<b>0209634</b>	•	48.5	69.85	95.0	51.0	10.0	42.0	5.0	37.0	76.0	M8x1	450.0	3.4
7/8"	≡													
1"	<b>0209635</b>	•	48.5	69.85	95.0	57.0	10.0	36.0	4.0	38.0	76.0	M8x1	700.0	3.7
1 1/4"	<b>0209636</b>	•	65.0	69.85	90.0	61.0	10.0	47.0	6.0	46.0	71.0	M10x1	850.0	3.9

- ≡ Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

Ⓜ Bore for data carrier as an option

ⓘ Optimal for heavy duty milling  
Additional sizes and special designs available on request

- ≡ Para sujetar con casquillos intermedios
- Posible suministro de existencias

Ⓜ Orificio para portador de datos como opción

ⓘ Óptimo para fresado de trabajo pesado  
Tamaños adicionales y diseños especiales disponibles a pedido



**Intermediate sleeves**  
see chapter accessories

**Casquillos intermedios**  
consulte el capítulo sobre accesorios



**Spanner wrenches**  
see chapter accessories

**Llaves de apriete**  
consulte el capítulo sobre accesorios



**"C"-spanners**  
see chapter accessories

**Llaves de gancho**  
consulte el capítulo sobre accesorios



**Sleeve remover**  
see chapter accessories

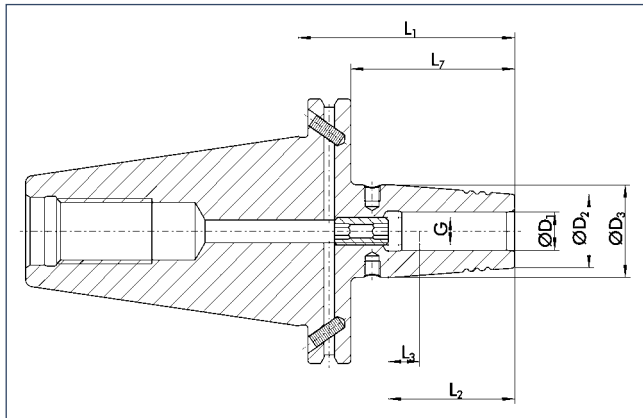
**Extractor de casquillos**  
consulte el capítulo sobre accesorios

**CELSIO SSF CAT 50**

with axial length adjustment

**CELSIO SSF CAT 50**

con ajuste de la longitud axial



CAT



< 0.003 mm



15000 min<sup>-1</sup>



25000 min<sup>-1</sup>



**Technical data**

**Datos técnicos**

D <sub>1</sub> [inch]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
1/4"	0208750	21.0	27.0	80.0	36.0	10.0	61.0	M5	20.0	2.9
1/4"	0208751	21.0	27.0	130.0	36.0	10.0	111.0	M5	20.0	3.0
1/4"	0208752	21.0	27.0	160.0	36.0	10.0	141.0	M5	20.0	3.2
5/16"	0208755	21.0	27.0	80.0	36.0	10.0	61.0	M6	52.0	2.9
5/16"	0208756	21.0	27.0	130.0	36.0	10.0	111.0	M6	52.0	3.0
5/16"	0208757	21.0	27.0	160.0	36.0	10.0	141.0	M6	52.0	3.2
3/8"	0208760	24.0	32.0	80.0	42.0	10.0	61.0	M8x1	70.0	2.9
3/8"	0208761	24.0	32.0	130.0	42.0	10.0	111.0	M8x1	70.0	3.1
3/8"	0208762	24.0	32.0	160.0	42.0	10.0	141.0	M8x1	70.0	3.5
7/16"	0208765	24.0	32.0	80.0	42.0	10.0	61.0	M8x1	150.0	2.9
7/16"	0208766	24.0	32.0	130.0	42.0	10.0	111.0	M8x1	150.0	3.1
7/16"	0208767	24.0	32.0	160.0	42.0	10.0	141.0	M8x1	150.0	3.5
1/2"	0208770 •	24.0	32.0	80.0	47.0	10.0	61.0	M10x1	150.0	2.9
1/2"	0208771	24.0	32.0	130.0	47.0	10.0	111.0	M10x1	150.0	3.1
1/2"	0208772	24.0	32.0	160.0	47.0	10.0	141.0	M10x1	150.0	3.5

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

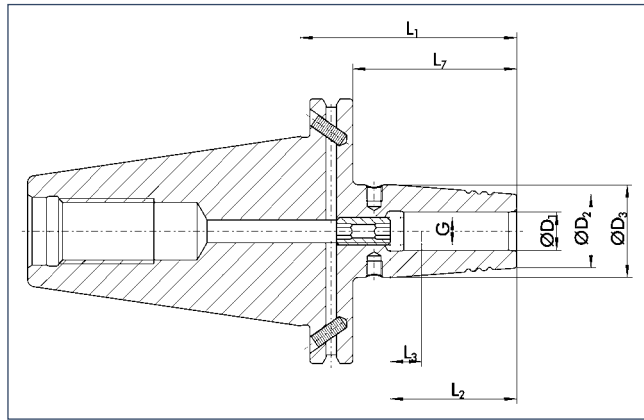
- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

- Additional sizes and special designs available on request

- Tamaños adicionales y diseños especiales disponibles a pedido

### CELSIO SSF CAT 50

with axial length adjustment



### CELSIO SSF CAT 50

con ajuste de la longitud axial



< 0.003 mm



15000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub>	ID	D <sub>2</sub>	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>7</sub>	G	M <sub>min</sub>	m
[inch]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]
5/8"	0208775	27.0	34.0	80.0	50.0	10.0	61.0	M12x1	300.0	2.9
5/8"	0208776	27.0	34.0	130.0	50.0	10.0	111.0	M12x1	300.0	3.1
5/8"	0208777	27.0	34.0	160.0	50.0	10.0	141.0	M12x1	300.0	3.6
3/4"	0208780	33.0	42.0	80.0	52.0	10.0	61.0	M16x1	420.0	2.9
3/4"	0208781	33.0	42.0	130.0	52.0	10.0	111.0	M16x1	420.0	3.5
3/4"	0208782	33.0	42.0	160.0	52.0	10.0	141.0	M16x1	420.0	4.0
1"	0208785	• 44.0	53.0	100.0	58.0	10.0	81.0	M16x1	550.0	3.5
1"	0208786	44.0	53.0	130.0	58.0	10.0	111.0	M16x1	550.0	4.5
1"	0208787	• 44.0	53.0	160.0	58.0	10.0	141.0	M16x1	550.0	4.1
1 1/4"	0208790	44.0	53.0	100.0	58.0	10.0	81.0	M16x1	600.0	3.4
1 1/4"	0208791	44.0	53.0	130.0	58.0	10.0	111.0	M16x1	600.0	3.9
1 1/4"	0208792	44.0	53.0	160.0	58.0	10.0	141.0	M16x1	600.0	4.4

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Additional sizes and special designs available on request

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

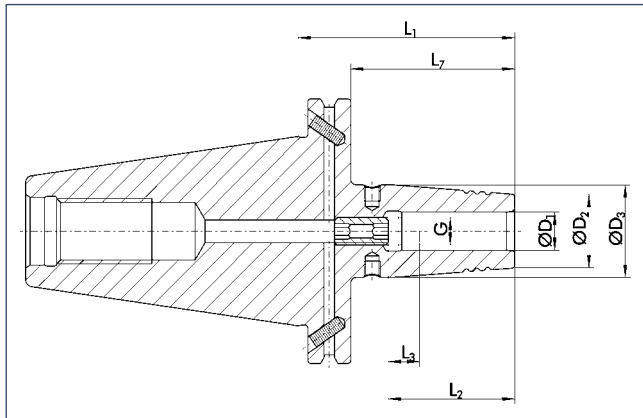
- Tamaños adicionales y diseños especiales disponibles a pedido

**CELSIO SSF CAT 50**

with axial length adjustment

**CELSIO SSF CAT 50**

con ajuste de la longitud axial



CAT



**Technical data**

**Datos técnicos**

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
6.0	0208700	21.0	27.0	80.0	36.0	10.0	61.0	M5	20.0	2.9
6.0	0208701	21.0	27.0	130.0	36.0	10.0	111.0	M5	20.0	3.0
6.0	0208702	21.0	27.0	160.0	36.0	10.0	141.0	M5	20.0	3.2
8.0	0208705	• 21.0	27.0	80.0	36.0	10.0	61.0	M6	52.0	2.9
8.0	0208706	21.0	27.0	130.0	36.0	10.0	111.0	M6	52.0	3.0
8.0	0208707	21.0	27.0	160.0	36.0	10.0	141.0	M6	52.0	3.2
10.0	0208710	• 24.0	32.0	80.0	42.0	10.0	61.0	M8x1	70.0	2.9
10.0	0208711	24.0	32.0	130.0	42.0	10.0	111.0	M8x1	70.0	3.1
10.0	0208712	24.0	32.0	160.0	42.0	10.0	141.0	M8x1	70.0	3.5
12.0	0208715	• 24.0	32.0	80.0	47.0	10.0	61.0	M10x1	150.0	2.9
12.0	0208716	24.0	32.0	130.0	47.0	10.0	111.0	M10x1	150.0	3.1
12.0	0208717	24.0	32.0	160.0	47.0	10.0	141.0	M10x1	150.0	3.5

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

Additional sizes and special designs available on request

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

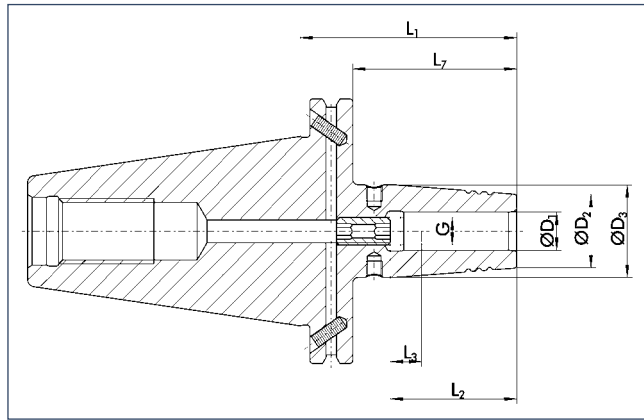
- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

Tamaños adicionales y diseños especiales disponibles a pedido



### CELSIO SSF CAT 50

with axial length adjustment



### CELSIO SSF CAT 50

con ajuste de la longitud axial



< 0.003 mm



15000 min<sup>-1</sup>



25000 min<sup>-1</sup>



#### Technical data

#### Datos técnicos

D <sub>1</sub> [mm]	ID	D <sub>2</sub> [mm]	D <sub>3</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>3</sub> [mm]	L <sub>7</sub> [mm]	G	M <sub>min</sub> [Nm]	m [kg]
16.0	0208725	• 27.0	34.0	80.0	50.0	10.0	61.0	M12x1	300.0	2.9
16.0	0208726	• 27.0	34.0	130.0	50.0	10.0	111.0	M12x1	300.0	3.1
16.0	0208727	• 27.0	34.0	160.0	50.0	10.0	141.0	M12x1	300.0	3.6
18.0	0208730	• 33.0	42.0	80.0	50.0	10.0	61.0	M12x1	370.0	3.0
18.0	0208731	• 33.0	42.0	130.0	50.0	10.0	111.0	M12x1	370.0	3.5
18.0	0208732	• 33.0	42.0	160.0	50.0	10.0	141.0	M12x1	370.0	3.9
20.0	0208735	• 33.0	42.0	80.0	52.0	10.0	61.0	M16x1	420.0	2.9
20.0	0208736	• 33.0	42.0	130.0	52.0	10.0	111.0	M16x1	420.0	3.5
20.0	0208737	• 33.0	42.0	160.0	52.0	10.0	141.0	M16x1	420.0	4.0
25.0	0208740	• 44.0	53.0	100.0	58.0	10.0	81.0	M16x1	550.0	3.5
25.0	0208741	• 44.0	53.0	130.0	58.0	10.0	111.0	M16x1	550.0	4.5
25.0	0208742	• 44.0	53.0	160.0	58.0	10.0	141.0	M16x1	550.0	4.1
32.0	0208745	• 44.0	53.0	100.0	58.0	10.0	81.0	M16x1	600.0	3.4
32.0	0208746	• 44.0	53.0	130.0	58.0	10.0	111.0	M16x1	600.0	3.9
32.0	0208747	• 44.0	53.0	160.0	58.0	10.0	141.0	M16x1	600.0	4.4

- Additional sizes can be clamped with intermediate sleeves
- Can be supplied from stock

- Design suitable for MQL operations available on request
- Bore for data carrier as an option

- Additional sizes and special designs available on request

- Para sujetar con casquillos intermedios
- Posible suministro de existencias

- Diseño apto para operaciones MQL disponible a pedido
- Orificio para portador de datos como opción

- Tamaños adicionales y diseños especiales disponibles a pedido