

CILINDROS COMPACTOS ISO 21287 SERIE LINER



Cilindro compacto serie "LINER" realizado según la norma ISO 21287 disponible en múltiples versiones en grado de satisfacer las diferentes exigencias del mercado:

- Ejecución magnético y no-magnético
- Doble efecto vástago simple o pasante
- Doble efecto vástago pasante hueco
- Simple efecto vástago extendido, retraído y pasante
- Simple efecto vástago pasante hueco
- Versión antirrotación doble efecto y doble efecto vástago pasante
- Posible elección entre juntas en POLIURETANO o FKM/FPM (para altas temperaturas)
- Medidas y distancias entre centros conforme a la normativa ISO 21287.

Los cabezales han sido eliminados para facilitar la instalación, mejorar la robustez y la precisión. El metal de la camisa está diseñado para soportar trabajos pesados, esfuerzos de tracción e impacto. Las piezas de tecnopolímero pueden soportar empujes dinámicos y neumáticos. La camisa actúa virtualmente como un "rodamiento" al que se añaden la mayoría de los accesorios del usuario.

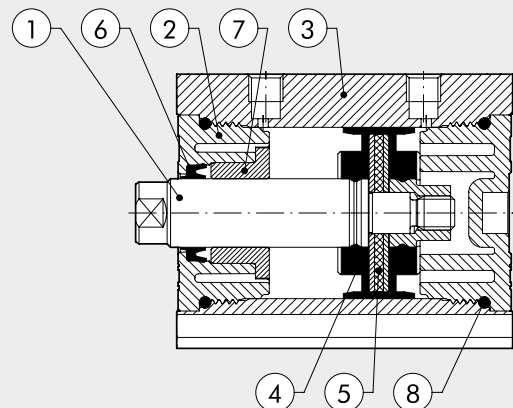
La amplia gama de anclajes proporciona numerosos puntos de fijación. Se pueden montar interruptores magnéticos insertables en las ranuras de los cilindros para identificar la posición.



| DATOS TÉCNICOS | | POLIURETANO | | | | FKM/FPM | | | |
|-----------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|---------------------------------|------|------|-------|
| Presión máxima de funcionamiento | bar | 10 | | | | | | | |
| | MPa | 1 | | | | | | | |
| | psi | 145 | | | | | | | |
| Temperatura de funcionamiento | °C | -10 ÷ +60 (Ø 20 ÷ 63) | | | | -10 ÷ +150 (Cil. no-magnéticos) | | | |
| | | -10 ÷ +80 (Ø 80 ÷ 100) | | | | | | | |
| Fluido | | Aire no lubricado, si utiliza aire lubricado, la lubricación debe ser continua | | | | | | | |
| Dímetros | mm | 20; 25; 32; 40; 50; 63; 80; 100 fijaciones norma ISO 21287 | | | | | | | |
| Tipo de construcción | | A perfil | | | | | | | |
| Versión | | Doble efecto, doble efecto vástago pasante, simple efecto vástago retraído y salida, simple efecto vástago pasante, doble efecto vástago pasante hueco, doble efecto antirrotación, doble efecto vástago pasante antirrotación, No stick-slip | | | | | | | |
| | | Todas las versiones tienen la posibilidad de rosca macho o hembra en vástago | | | | | | | |
| | | Todas las versiones tienen la posibilidad de rosca macho o hembra en vástago | | | | | | | |
| Imanes para sensores | | Véanse los "Datos técnicos generales" al comienzo del capítulo | | | | | | | |
| Presión de arranque | bar | Ø 20 | Ø 25 | Ø 32 | Ø 40 | Ø 50 | Ø 63 | Ø 80 | Ø 100 |
| | | Vástago simple | 0.6 | 0.6 | 0.6 | 0.4 | 0.4 | 0.4 | 0.4 |
| | | Vástago pasante | 0.8 | 0.8 | 0.6 | 0.4 | 0.4 | 0.4 | 0.4 |
| Fuerzas desarrolladas a 6 bar empuje/tracción | | Véanse los "Datos técnicos generales" al comienzo del capítulo | | | | | | | |
| Pesos | | Véanse los "Datos técnicos generales" al comienzo del capítulo | | | | | | | |
| Notas de uso | | Para su correcto funcionamiento es aconsejable usar aire filtrado a 50 µm | | | | | | | |
| | | Para evitar saltos a velocidades inferiores a 0.2 m/s, utilizar la versión No stick-slip y aire no lubricado | | | | | | | |

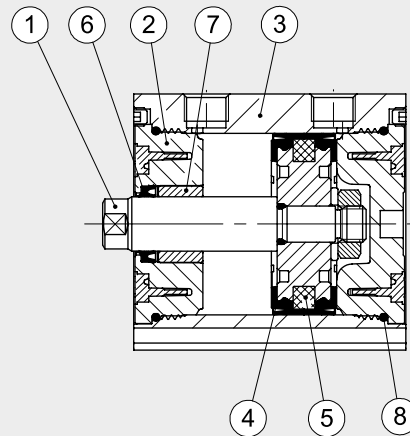
COMPONENTES Ø 20, Ø 25

- 1 VÁSTAGO: acero inoxidable, cromado a espesor
- 2 CABEZA: tecnopolímero de alto rendimiento
- 3 CAMISA: en aluminio perfilado, anodizado y calibrado
- 4 JUNTAS PISTÓN: poliuretano o FKM/FPM (para altas temperaturas)
- 5 MAGNETO: plastoneodimio
- 6 JUNTAS VÁSTAGO: poliuretano o FKM/FPM (para altas temperaturas)
- 7 CASQUILLO DE GUÍA: bronce sinterizado
- 8 ANILLOS TOROIDALES ESTÁTICAS: NBR o FKM/FPM (para altas temperaturas)



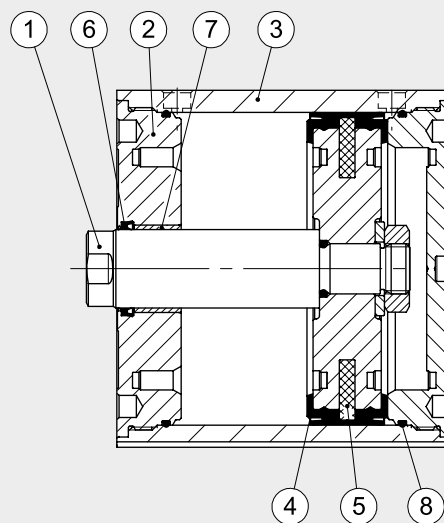
COMPONENTES Ø 32 ÷ 63

- ① VÁSTAGO: acero C45 o inoxidable, cromado a espesor
- ② CABEZA: tecnopolímero de alto rendimiento
- ③ CAMISA: en aluminio prefilado, anodizado y calibrado
- ④ JUNTAS PISTÓN: poliuretano o FKM/FPM (para altas temperaturas)
- ⑤ MAGNETO: Ø 32 plastoneodimio - Ø 40 ÷ 63 plastoferrita
- ⑥ JUNTAS VÁSTAGO: poliuretano o FKM/FPM (para altas temperaturas)
- ⑦ CASQUILLO DE GUÍA: bronce sinterizado
- ⑧ ANILLOS TOROIDALES ESTÁTICAS: NBR o FKM/FPM (para altas temperaturas)

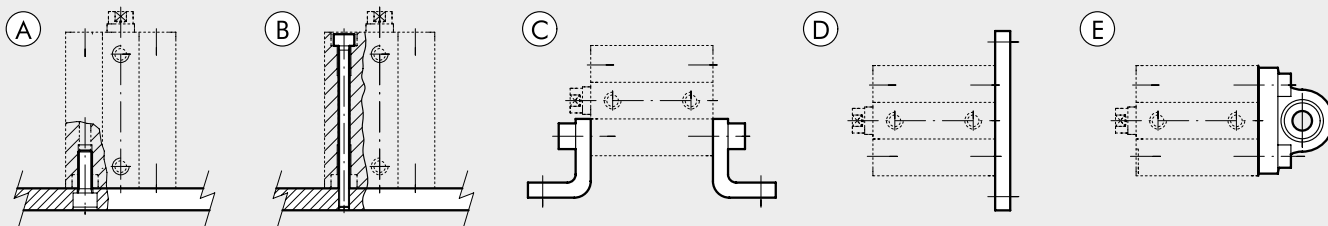


COMPONENTES Ø 80, Ø 100

- ① VÁSTAGO: acero C45 o inoxidable, cromado a espesor
- ② CULATA: aleación de aluminio estruso anodizado
- ③ CAMISA: en aluminio prefilado, anodizado y calibrado
- ④ JUNTAS PISTÓN: poliuretano o FKM/FPM (para altas temperaturas)
- ⑤ MAGNETO: plastoferrita
- ⑥ JUNTAS VÁSTAGO: poliuretano o FKM/FPM (para altas temperaturas)
- ⑦ CASQUILLO GUÍA: fleje de acero con recubrimiento de bronce e PTFE
- ⑧ ANILLOS TOROIDALES ESTÁTICAS: NBR o FKM/FPM (para altas temperaturas)



POSIBILIDADES DE FIJACIÓN



- A) Fijación de trabajos estructurales mediante un tornillo pasante, usando la rosca en la cabeza
- B) Fijación directa trámite tornillos pasantes largos o trámite tirantes. En este caso utilizar tornillos o tirantes en material inoxidable amagnético (es. AISI 304)
- C) Fijación trámite escuadras; el código de ordenación prevé la suministración de una escuadra y de dos tornillos para la fijación del mismo al cilindro.
- D) Fijación con una brida montada en la cabeza delantera o trasera; el código de ordenación prevé la suministración de la escuadra y de 4 tornillos para la fijación de la misma al cilindro.
- E) Fijación trámite charnela con rotula, permite recuperar ligeros desajustes del sistema y de trabajar con un grado de libertad. El código de orden prevé la suministración de la charnela y de 4 tornillos para la fijación de la misma al cilindro.

FUERZA DEL MUELLE DEL CILINDRO SIMPLE EFECTO (TEORICA)

| Diámetro | Ø 20 | Ø 25 | Ø 32 | Ø 40 | Ø 50 | Ø 63 | Ø 80 | Ø 100 |
|-----------------|-------|-------|-------|-------|-------|-------|--------|--------|
| Fuerza min. (N) | 8.40 | 13.90 | 19.00 | 24.80 | 36.30 | 50.20 | 77.60 | 131.80 |
| Fuerza max. (N) | 20.90 | 33.20 | 35.90 | 53.70 | 62.20 | 82.30 | 118.90 | 183.30 |

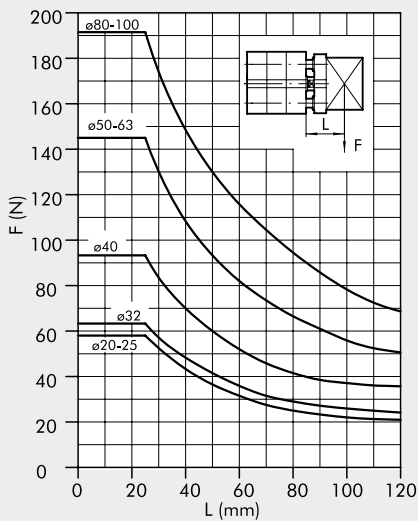
CARRERAS PARA CILINDROS COMPACTOS ISO 21287

| Carrera estándar para simple efecto | Carrera estándar otras tipologías | Carrera max. aconsejable otras tipologías | Carrera max. aconsejable para antirrotación | Carrera max. para vástago pasante hueco |
|-------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------|
| Ø 20 ÷ 100 → de 1 a 25 mm | Ø 20 ÷ 25 → de 1 a 60 mm Ø 32 ÷ 100 → de 1 a 80 mm | Ø 20 ÷ 25 → 300 mm Ø 32 ÷ 63 → 400 mm Ø 80 ÷ 100 → 500 mm | Ø 20 ÷ 63 → 120 mm Ø 80 ÷ 100 → 150 mm | Ø 20 ÷ 40 → de 1 a 80 mm Ø 50 ÷ 63 → de 1 a 100 mm Ø 80 ÷ 100 → de 1 a 160 mm |

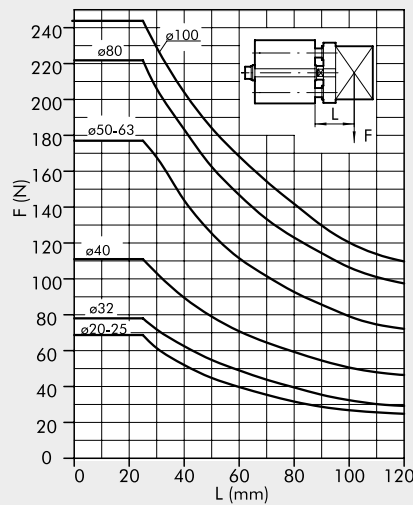
Carreras máximas aconsejables, valores superiores pueden crear problemas de funcionamiento.

CARGAS MÁXIMAS VERSIÓN ANTIRROTACIÓN

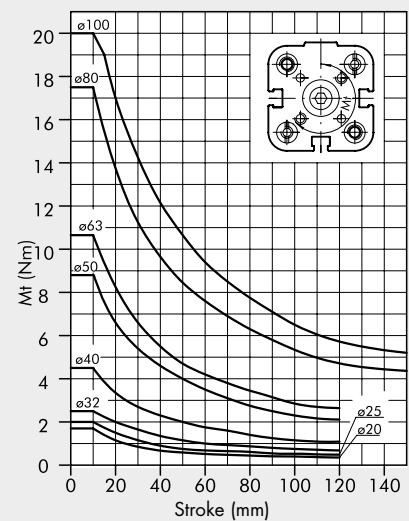
FUERZA TRANSVERSAL ANTIRROTACIÓN



FUERZA TRANSVERSAL ANTIRROTACIÓN VÁSTAGO PASANTE

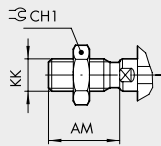


TORSION EN FUNCIÓN DE LA CARRERA



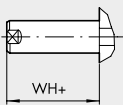
DIMENSIONES VERSIÓN VÁSTAGO PASANTE Ø 20 ÷ 50

SE-DE VÁSTAGO MACHO

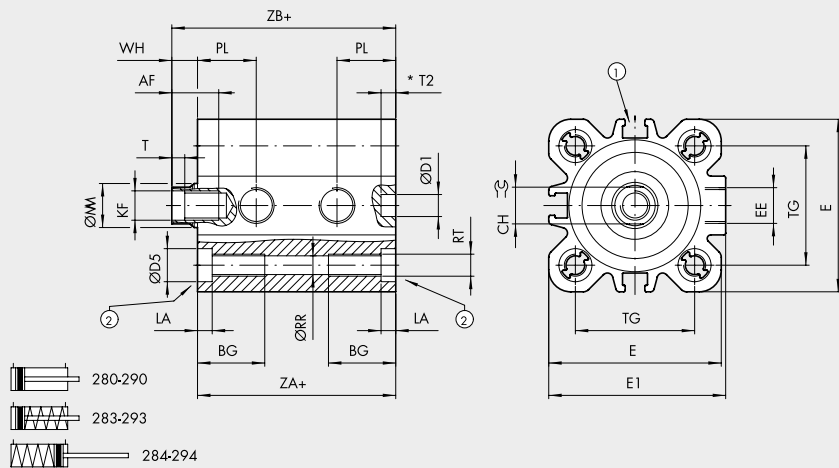
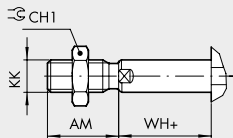


- + = AÑADIR LA CARRERA
- * = TRATADO CON TOLERANCIAS
- 1 = RANURA PARA SENSOR
- 2 = REBAJE PARA TORNILLO DIN 7984

SE VÁSTAGO EXTENDIDO



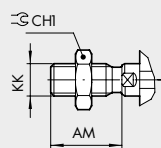
SE VÁSTAGO EXTENDIDO MACHO



| Ø | AF | AM | BG | CH | CH1 | ØD1 ^{H9} | ØD5 | E | E1 | EE | KF | KK | LA | ØMM | PL | ØRR | RT | T | T2 | TG ^{+0.2} | WH | ZA ^{+0.3} | ZB |
|----|------|----|------|----|-----|-------------------|------|------|------|------|-----|----------|-----|-----|------|-----|----|-----|-----|--------------------|----|--------------------|----|
| 20 | 14 | 16 | 17.5 | 8 | 13 | 6 | 7.5 | 35.5 | 36.5 | M5 | M6 | M8 | 4.2 | 10 | 12 | 4.2 | M5 | 2.5 | 3 | 22 | 6 | 37 | 43 |
| 25 | 14 | 16 | 17.5 | 8 | 13 | 6 | 7.5 | 39.5 | 40 | M5 | M6 | M8 | 4.2 | 10 | 13 | 4.2 | M5 | 2.5 | 3.5 | 26 | 6 | 39 | 45 |
| 32 | 16.5 | 19 | 21.5 | 10 | 17 | 6 | 9 | 47 | 48.2 | G1/8 | M8 | M10x1.25 | 4 | 12 | 16 | 5.1 | M6 | 3.5 | 4 | 32.5 | 7 | 44 | 51 |
| 40 | 16.5 | 19 | 21.5 | 10 | 17 | 6 | 9 | 55.5 | 56.5 | G1/8 | M8 | M10x1.25 | 4 | 12 | 16 | 5.1 | M6 | 3.5 | 4 | 38 | 7 | 45 | 52 |
| 50 | 17 | 22 | 21 | 13 | 19 | 6 | 10.5 | 66.5 | 67.8 | G1/8 | M10 | M12x1.25 | 4.5 | 16 | 15.5 | 6.8 | M8 | 4 | 3 | 46.5 | 8 | 45 | 53 |

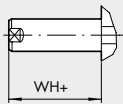
DIMENSIONES VERSIÓN DOBLE EFECTO Ø 63 ÷ 100 Y SIMPLE EFECTO Ø 63 ÷ 100

SE-DE VÁSTAGO MACHO

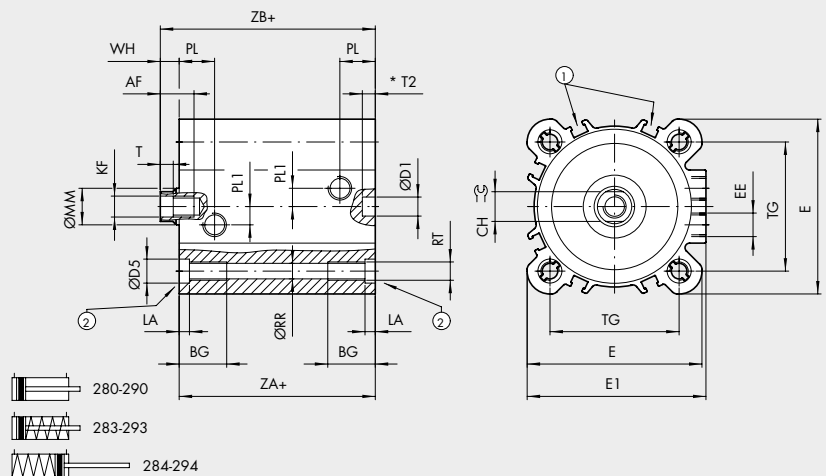
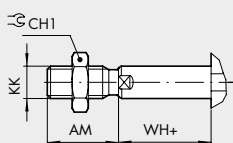


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- 1 = RANURA PARA SENSOR
- 2 = REBAJE PARA TORNILLO DIN 7984

SE VÁSTAGO EXTENDIDO



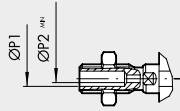
SE VÁSTAGO EXTENDIDO MACHO



| Ø | AF | AM | BG | CH | CH1 | ØD1 ^{H9} | ØD5 | E | E1 | EE | KF | KK | LA | ØMM | PL1 | PL | ØRR | RT | T | T2 | TG ^{+0.2} | WH | ZA ^{+0.4} | ZB |
|-----|----|----|------|----|-----|-------------------|------|------|------|------|-----|----------|-----|-----|-----|------|-----|-----|---|-----|--------------------|----|--------------------|----|
| 63 | 17 | 22 | 21 | 13 | 19 | 8 | 10.5 | 76.5 | 78.3 | G1/8 | M10 | M12x1.25 | 4.5 | 16 | 8 | 15.5 | 6.8 | M8 | 4 | 3.5 | 56.5 | 8 | 49 | 57 |
| 80 | 22 | 28 | 22.5 | 17 | 24 | 8 | 14 | 95.5 | 95.5 | G1/8 | M12 | M16x1.5 | 5 | 20 | 14 | 16.5 | 8.5 | M10 | 5 | 4 | 72 | 10 | 54 | 64 |
| 100 | 24 | 28 | 25.5 | 22 | 30 | 8 | 14 | 114 | 114 | G1/8 | M12 | M16x1.5 | 5 | 25 | 19 | 19.2 | 8.5 | M10 | 5 | 4 | 89 | 10 | 67 | 77 |

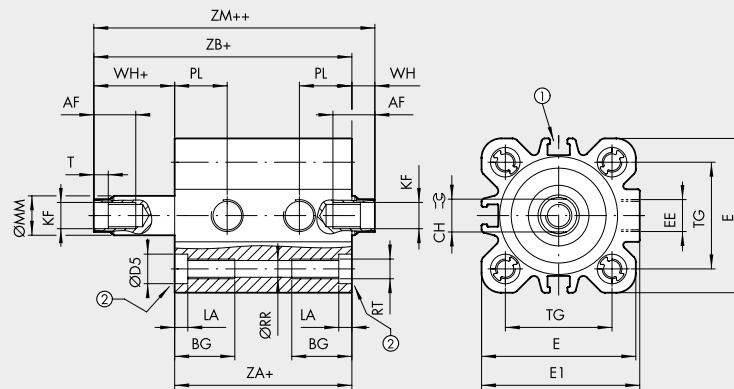
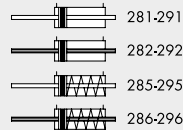
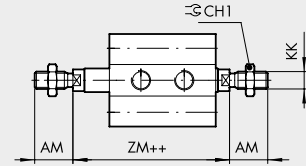
DIMENSIONES VERSIÓN VÁSTAGO PASANTE Ø 20 ÷ 50

SE-DE VÁSTAGO MACHO PASANTE HUECO



- + = AÑADIR LA CARRERA
- ++ = AÑADIR 2 VECES LA CARRERA
- 1 = RANURA PARA SENSOR
- 2 = REBAJE PARA TORNILLO DIN 7984

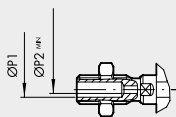
SE-DE VÁSTAGO MACHO



| Ø | AF | AM | BG | CH | CH1 | ØD5 | E | E1 | EE | KF | KK | LA | ØMM | ØP1 | ØP2 | PL | ØRR | RT | T | TG ^{+0.2} | WH | ZA ^{+0.3} | ZB | ZM |
|----|------|----|------|----|-----|------|------|------|------|-----|----------|-----|-----|-----|-----|------|-----|----|-----|--------------------|----|--------------------|----|----|
| 20 | 14 | 16 | 17.5 | 8 | 13 | 7.5 | 35.5 | 36.5 | M5 | M6 | M8 | 4.2 | 10 | 3 | 1.5 | 12 | 4.2 | M5 | 2.5 | 22 | 6 | 37 | 43 | 49 |
| 25 | 14 | 16 | 17.5 | 8 | 13 | 7.5 | 39.5 | 40 | M5 | M6 | M8 | 4.2 | 10 | 3 | 1.5 | 13 | 4.2 | M5 | 2.5 | 26 | 6 | 39 | 45 | 51 |
| 32 | 16.5 | 19 | 21.5 | 10 | 17 | 9 | 47 | 48.2 | G1/8 | M8 | M10x1.25 | 4 | 12 | 4 | 2.5 | 16 | 5.1 | M6 | 3.5 | 32.5 | 7 | 44 | 51 | 58 |
| 40 | 16.5 | 19 | 21.5 | 10 | 17 | 9 | 55.5 | 56.5 | G1/8 | M8 | M10x1.25 | 4 | 12 | 4 | 2.5 | 16 | 5.1 | M6 | 3.5 | 38 | 7 | 45 | 52 | 59 |
| 50 | 17 | 22 | 21 | 13 | 19 | 10.5 | 66.5 | 67.8 | G1/8 | M10 | M12x1.25 | 4.5 | 16 | 6 | 4 | 15.5 | 6.8 | M8 | 4 | 46.5 | 8 | 45 | 53 | 61 |

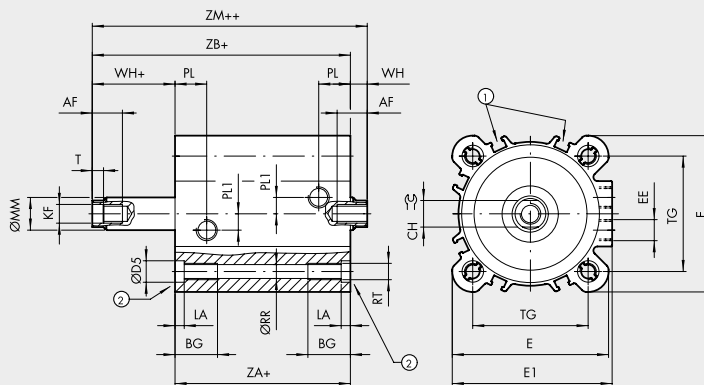
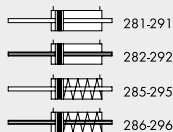
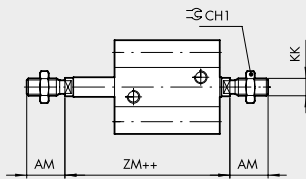
DIMENSIONES VERSIÓN VÁSTAGO PASANTE Ø 63 ÷ 100

SE-DE VÁSTAGO MACHO PASANTE HUECO



- + = AÑADIR LA CARRERA
- ++ = AÑADIR 2 VECES LA CARRERA
- 1 = RANURA PARA SENSOR
- 2 = REBAJE PARA TORNILLO DIN 7984

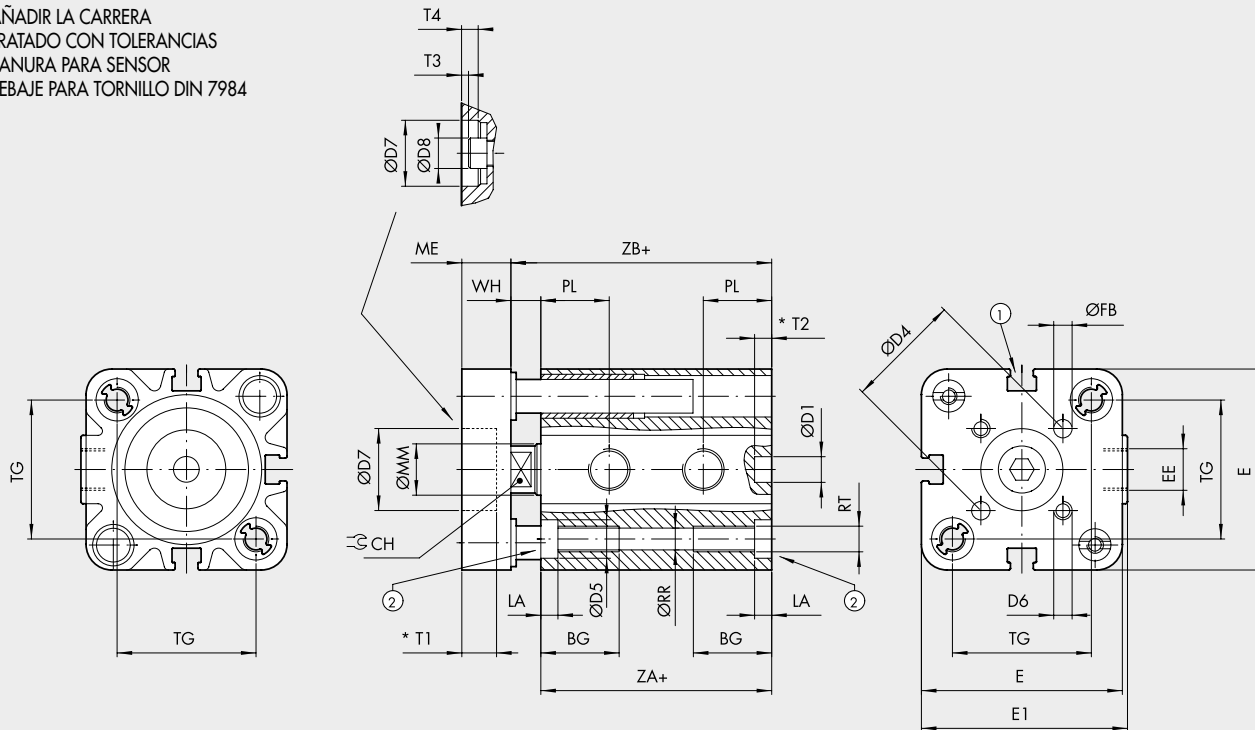
SE-DE VÁSTAGO MACHO



| Ø | AF | AM | BG | CH | CH1 | ØD5 | E | E1 | EE | KF | KK | LA | ØMM | ØP1 | ØP2 | PL1 | PL | ØRR | RT | T | TG ^{+0.2} | WH | ZA ^{+0.4} | ZB | ZM |
|-----|----|----|------|----|-----|------|------|------|------|-----|----------|-----|-----|------|-----|-----|------|-----|-----|---|--------------------|----|--------------------|----|----|
| 63 | 17 | 22 | 21 | 13 | 19 | 10.5 | 76.5 | 78.3 | G1/8 | M10 | M12x1.25 | 4.5 | 16 | 6 | 4 | 8 | 15.5 | 6.8 | M8 | 4 | 56.5 | 8 | 49 | 57 | 65 |
| 80 | 22 | 28 | 22.5 | 17 | 24 | 14 | 95.5 | 95.5 | G1/8 | M12 | M16x1.5 | 5 | 20 | G1/8 | 5 | 14 | 16.5 | 8.5 | M10 | 5 | 72 | 10 | 54 | 64 | 74 |
| 100 | 24 | 28 | 25.5 | 22 | 30 | 14 | 114 | 114 | G1/8 | M12 | M16x1.5 | 5 | 25 | G1/8 | 6 | 19 | 19.2 | 8.5 | M10 | 5 | 89 | 10 | 67 | 77 | 87 |

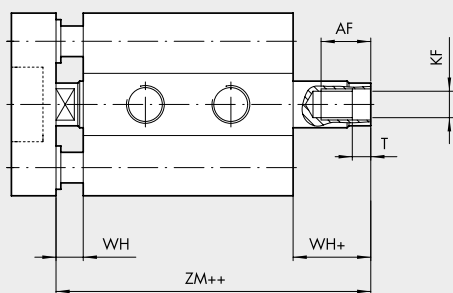
DIMENSIONES VERSIÓN ANTIRROTACIÓN Ø 20 ÷ 50

- + = AÑADIR LA CARRERA
- * = TRATADO CON TOLERANCIAS
- 1 = RANURA PARA SENSOR
- 2 = REBAJE PARA TORNILLO DIN 7984



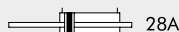
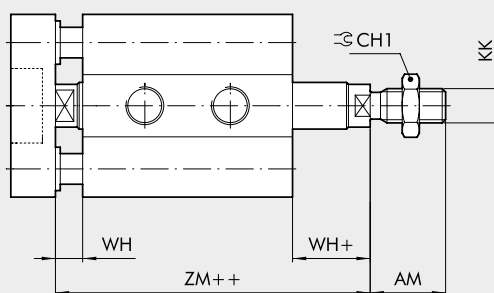
ANTIRROTACIÓN VÁSTAGO PASANTE HEMBRA

- + = AÑADIR LA CARRERA
- ++ = AÑADIR 2 VECES LA CARRERA



ANTIRROTACIÓN VÁSTAGO PASANTE MACHO

- + = AÑADIR LA CARRERA
- ++ = AÑADIR 2 VECES LA CARRERA

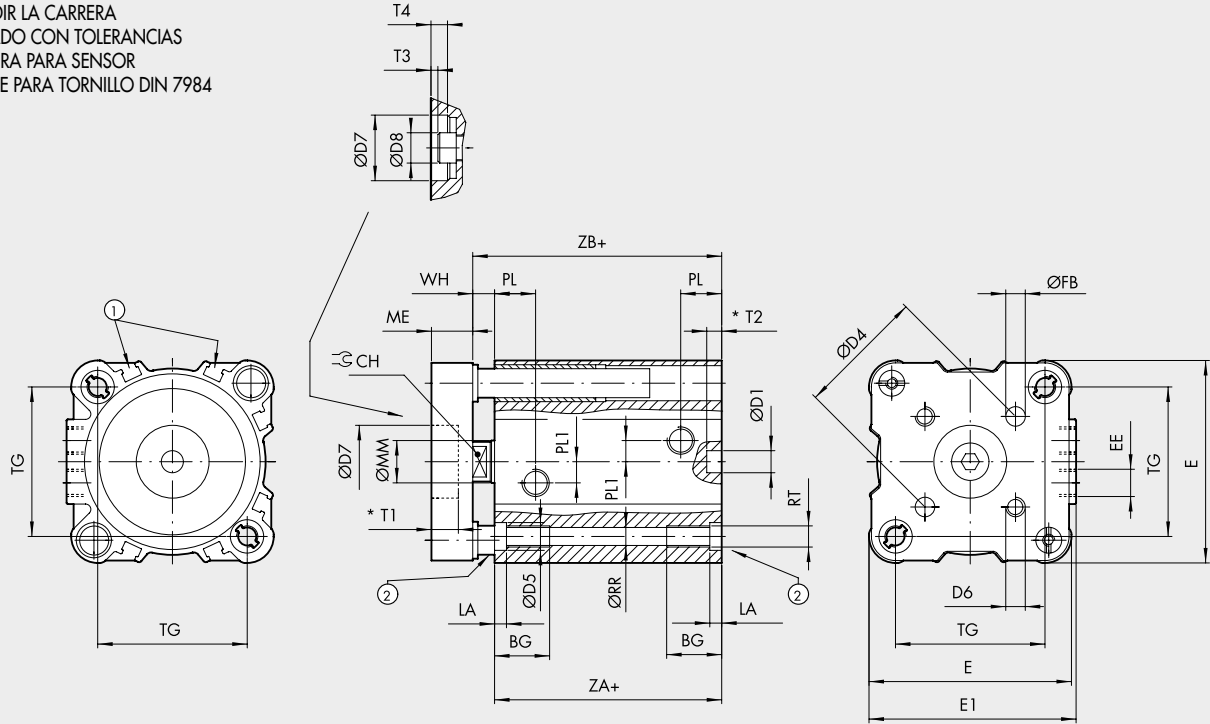


| Ø | AF | AM | BG | CH | CH1 | ØD1 ^{H9} | ØD4 | ØD5 | D6 | ØD7 ^{H9} | ØD8 | E | E1 | EE | ØFB | KF | KK | LA | ME | ØMM | PL | ØRR | RT | T | T1 | T2 | T3 | T4 |
|----|------|----|------|----|-----|-------------------|-----|------|----|-------------------|-----|------|------|------|-----|-----|----------|-----|----|-----|------|-----|----|-----|-----|-----|-----|-----|
| 20 | 14 | 16 | 17.5 | 8 | 13 | 6 | 17 | 7.5 | M4 | - | - | 35.5 | 36.5 | M5 | 4 | M6 | M8 | 4.2 | 8 | 10 | 12 | 4.2 | M5 | 2.5 | - | 3 | - | - |
| 25 | 14 | 16 | 17.5 | 8 | 13 | 6 | 22 | 7.5 | M5 | 14 | 10 | 39.5 | 40 | M5 | 5 | M6 | M8 | 4.2 | 8 | 10 | 13 | 4.2 | M5 | 2.5 | 3.5 | 3.5 | 1 | 3.5 |
| 32 | 16.5 | 19 | 21.5 | 10 | 17 | 6 | 28 | 9 | M5 | 17 | 13 | 47 | 48.2 | G1/8 | 5 | M8 | M10x1.25 | 4 | 10 | 12 | 16 | 5.1 | M6 | 3.5 | 3.5 | 4 | 1 | 3.5 |
| 40 | 16.5 | 19 | 21.5 | 10 | 17 | 6 | 33 | 9 | M5 | 17 | 13 | 55.5 | 56.5 | G1/8 | 5 | M8 | M10x1.25 | 4 | 10 | 12 | 16 | 5.1 | M6 | 3.5 | 3.5 | 4 | 1 | 3.5 |
| 50 | 17 | 22 | 21 | 13 | 19 | 6 | 42 | 10.5 | M6 | 22 | 16 | 66.5 | 67.8 | G1/8 | 6 | M10 | M12x1.25 | 4.5 | 12 | 16 | 15.5 | 6.8 | M8 | 4 | 5 | 3 | 1.5 | 5 |

| Ø | TG ^{+0.2} | WH | ZA ^{+0.3} | ZB | ZM |
|----|--------------------|----|--------------------|----|----|
| 20 | 22 | 6 | 37 | 43 | 49 |
| 25 | 26 | 6 | 39 | 45 | 51 |
| 32 | 32.5 | 7 | 44 | 51 | 58 |
| 40 | 38 | 7 | 45 | 52 | 59 |
| 50 | 46.5 | 8 | 45 | 53 | 61 |

DIMENSIONES VERSIÓN ANTIRROTACIÓN Ø 63 ÷ 100

- + = AÑADIR LA CARRERA
- * = TRATADO CON TOLERANCIAS
- 1 = RANURA PARA SENSOR
- 2 = REBAJE PARA TORNILLO DIN 7984

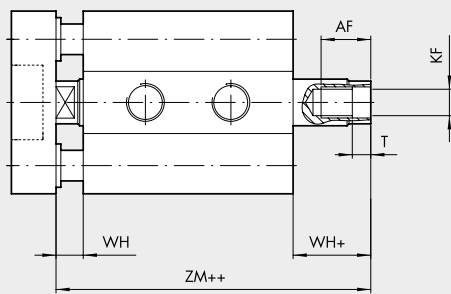


ACTUADORES

CIINDROS COMPACTOS ISO 21287 SERIE LINER

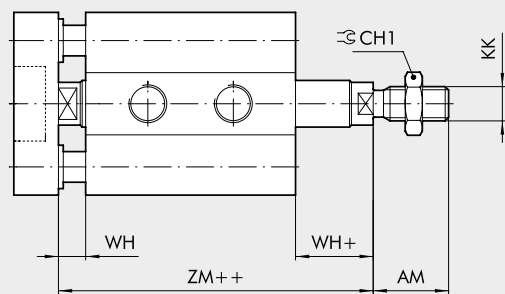
ANTIRROTACIÓN VÁSTAGO PASANTE HEMBRA

- + = AÑADIR LA CARRERA
- ++ = AÑADIR 2 VECES LA CARRERA



ANTIRROTACIÓN VÁSTAGO PASANTE MACHO

- + = AÑADIR LA CARRERA
- ++ = AÑADIR 2 VECES LA CARRERA



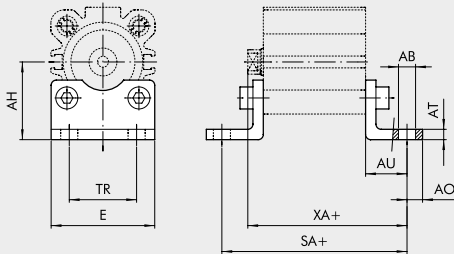
| Ø | AF | AM | BG | CH | CH1 | ØD1 ^{H9} | ØD4 | ØD5 | D6 | ØD7 ^{H9} | ØD8 | E | E1 | EE | ØFB | KF | KK | LA | ME | ØMM | PL1 | PL | ØRR | RT | T | T1 | T2 | T3 |
|-----|----|----|------|----|-----|-------------------|-----|------|-----|-------------------|-----|------|------|------|-----|-----|----------|-----|----|-----|-----|------|-----|-----|---|-----|-----|-----|
| 63 | 17 | 22 | 21 | 13 | 19 | 8 | 50 | 10.5 | M6 | 22 | 16 | 76.5 | 78.3 | G1/8 | 6 | M10 | M12x1.25 | 4.5 | 12 | 16 | 8 | 15.5 | 6.8 | M8 | 4 | 5 | 3.5 | 1.5 |
| 80 | 22 | 28 | 22.5 | 17 | 24 | 8 | 65 | 14 | M8 | 24 | 18 | 95.5 | 95.5 | G1/8 | 8 | M12 | M16x1.5 | 5 | 14 | 20 | 14 | 16.5 | 8.5 | M10 | 5 | 7.5 | 4 | 3.5 |
| 100 | 24 | 28 | 25.5 | 22 | 30 | 8 | 80 | 14 | M10 | 24 | 18 | 114 | 114 | G1/8 | 10 | M12 | M16x1.5 | 5 | 14 | 25 | 19 | 19.2 | 8.5 | M10 | 5 | 7.5 | 4 | 3.5 |

| Ø | T4 | TG ^{+0.2} | WH | ZA ₀ ^{+0.4} | ZB | ZM |
|-----|-----|--------------------|----|---------------------------------|----|----|
| 63 | 5 | 56.5 | 8 | 49 | 57 | 65 |
| 80 | 7.5 | 72 | 10 | 54 | 64 | 74 |
| 100 | 7.5 | 89 | 10 | 67 | 77 | 87 |

ACCESORIOS PARA CILINDROS COMPACTOS ISO 21287: FIJACIONES

PATA - MOD. A

+ = AÑADIR LA CARRERA

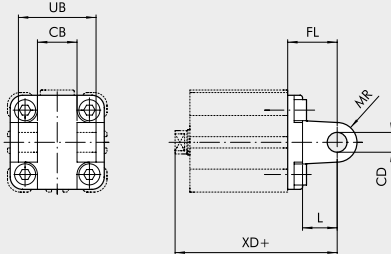


| Código | Ø | ØAB | AH | AO | AT | AU | E | SA | TR | XA | Peso [g] |
|-------------|-----|-----|-----|-----|----|-----|-----|------|----|------|----------|
| W0950206001 | 20 | 6.6 | 27 | 6 | 4 | 16 | 36 | 69 | 22 | 59 | 46 |
| W0950256001 | 25 | 6.6 | 30* | 6 | 4 | 16 | 40 | 71 | 26 | 61 | 52 |
| W0950322001 | 32 | 7 | 32* | 11* | 4 | 24* | 45 | 92* | 32 | 75* | 76 |
| W0950402001 | 40 | 9 | 36* | 15* | 4 | 28* | 52 | 101* | 36 | 80* | 100 |
| W0950502001 | 50 | 9 | 45 | 15* | 5 | 32* | 65 | 109* | 45 | 85* | 162 |
| W0950632001 | 63 | 9 | 50 | 15* | 5 | 32* | 75 | 113* | 50 | 89* | 266 |
| W0950802001 | 80 | 12 | 63 | 20* | 6 | 41* | 95 | 136* | 63 | 105* | 456 |
| W0951002001 | 100 | 14 | 71* | 25* | 6 | 41* | 115 | 149* | 75 | 118* | 572 |

Nota: n. 1 pieza para configuración completo de 2 tornillos
 * **IMPORTANTE:** los valores no se corresponden con la ISO 21287. Las pasadores del cilindro utilizados son ISO 15552

CHARNELA HEMBRA - MOD. B

+ = AÑADIR LA CARRERA

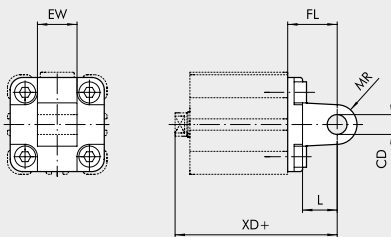


| Código | Ø | CB ^{H14} | ØCD ^{H9} | FL | L | MR | UB ^{H14} | XD | Peso [g] |
|-------------|-----|-------------------|-------------------|----|----|----|-------------------|-----|----------|
| W0950322003 | 32 | 26 | 10 | 22 | 12 | 10 | 45 | 73 | 112 |
| W0950402003 | 40 | 28 | 12 | 25 | 15 | 12 | 52 | 77 | 159 |
| W0950502003 | 50 | 32 | 12 | 27 | 15 | 12 | 60 | 80 | 250 |
| W0950632003 | 63 | 40 | 16 | 32 | 20 | 16 | 70 | 89 | 390 |
| W0950802003 | 80 | 50 | 16 | 36 | 20 | 16 | 90 | 100 | 668 |
| W0951002003 | 100 | 60 | 20 | 41 | 25 | 20 | 110 | 118 | 1047 |

Nota: servida completa de n. 4 tornillos, n. 4 arandela, n. 2 seeger, n. 1 pasador

CHARNELA MACHO - MOD. BA

+ = AÑADIR LA CARRERA

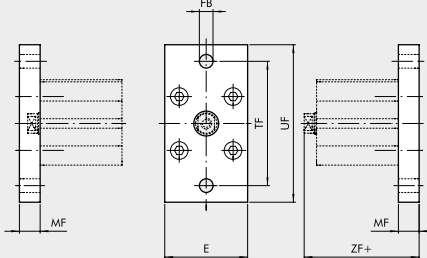


| Código | Ø | ØCD ^{H9} | EW | FL | L | MR | XD | Peso [g] |
|-------------|-----|-------------------|----|----|----|----|-----|----------|
| W0950206004 | 20 | 8 | 16 | 20 | 14 | 8 | 63 | 44 |
| W0950256004 | 25 | 8 | 16 | 20 | 14 | 8 | 65 | 48 |
| W0950322004 | 32 | 10 | 26 | 22 | 12 | 11 | 73 | 94 |
| W0950402004 | 40 | 12 | 28 | 25 | 15 | 13 | 77 | 124 |
| W0950502004 | 50 | 12 | 32 | 27 | 15 | 13 | 80 | 220 |
| W0950632004 | 63 | 16 | 40 | 32 | 20 | 17 | 89 | 316 |
| W0950802004 | 80 | 16 | 50 | 36 | 20 | 17 | 100 | 578 |
| W0951002004 | 100 | 20 | 60 | 41 | 25 | 21 | 118 | 850 |

Nota: servida completa de n. 4 tornillos

BRIDA Ø 20÷25 - MOD. C (FRONTAL-TRASERO)

+ = AÑADIR LA CARRERA

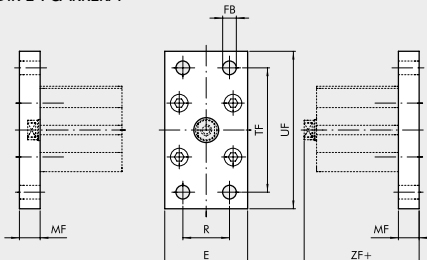


| Código | Ø | E | ØFB | MF | TF | UF | ZF | Peso [g] |
|-------------|----|----|-----|-----|----|----|-----|----------|
| W0950206002 | 20 | 36 | 6.6 | 10* | 55 | 70 | 53* | 184 |
| W0950256002 | 25 | 40 | 6.6 | 10* | 60 | 76 | 55* | 226 |

Nota: servida completa de n. 4 tornillos
 * **IMPORTANT:** la distancia de fijación no se corresponde a la ISO 21287

BRIDA Ø 32÷100 - MOD. C (FRONTAL-TRASERO)

+ = AÑADIR LA CARRERA

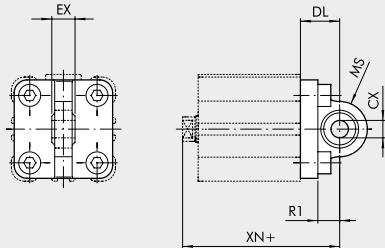


| Código | Ø | E | ØFB | MF | R | TF | UF | ZF | Peso [g] |
|-------------|-----|-----|-----|----|----|-----|-----|----|----------|
| W0950322002 | 32 | 50 | 7 | 10 | 32 | 64 | 80 | 61 | 246 |
| W0950402002 | 40 | 55 | 9 | 10 | 36 | 72 | 90 | 62 | 290 |
| W0950502002 | 50 | 65 | 9 | 12 | 45 | 90 | 110 | 65 | 522 |
| W0950632002 | 63 | 75 | 9 | 12 | 50 | 100 | 120 | 69 | 670 |
| W0950802002 | 80 | 95 | 12 | 16 | 63 | 126 | 153 | 80 | 1420 |
| W0951002002 | 100 | 115 | 14 | 16 | 75 | 150 | 178 | 93 | 2040 |

Nota: servida completa de n. 4 tornillos

CHARNELA MACHO CON ROTULA - MOD. BAS

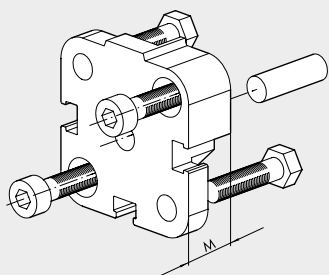
+ = AÑADIR LA CARRERA



| Código | Ø | ØCX | DL | EX | MS | R1 | XN | Peso [g] |
|-------------|-----|-----|----|----|----|----|-----|----------|
| W0950322006 | 32 | 10 | 22 | 14 | 16 | 12 | 73 | 106 |
| W0950402006 | 40 | 12 | 25 | 16 | 18 | 15 | 77 | 142 |
| W0950502006 | 50 | 12 | 27 | 16 | 21 | 19 | 80 | 236 |
| W0950632006 | 63 | 16 | 32 | 21 | 23 | 20 | 89 | 336 |
| W0950802006 | 80 | 16 | 36 | 21 | 28 | 24 | 100 | 572 |
| W0951002006 | 100 | 20 | 41 | 25 | 30 | 25 | 118 | 840 |

Nota: servida completa de n. 4 tornillos, n. 4 arandela

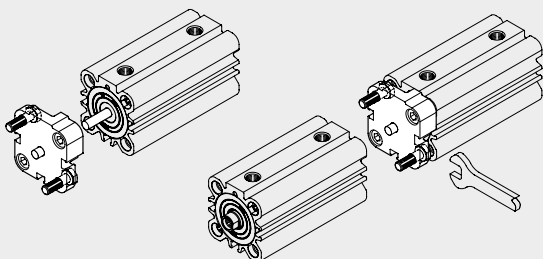
BRIDA PARA CILINDRO CONTRAPUESTO



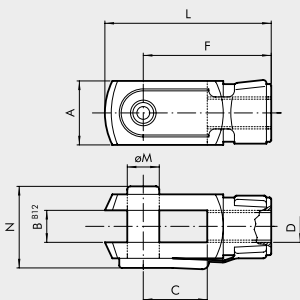
| Código | Ø | M | Peso [g] |
|------------|-----|------|----------|
| 0950203060 | 20 | 12.5 | 45 |
| 0950253060 | 25 | 13 | 57 |
| 0950323060 | 32 | 14.5 | 88 |
| 0950403061 | 40 | 14.5 | 106 |
| 0950503061 | 50 | 14.5 | 158 |
| 0950633061 | 63 | 14.5 | 258 |
| 0950803061 | 80 | 16.5 | 452 |
| 0951003061 | 100 | 19.5 | 801 |

Nota: servida completa de n. 1 eje, n. 4 tornillos

MONTAJE



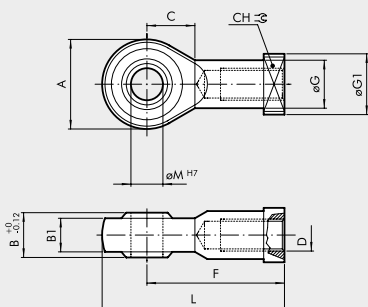
HORQUILLA - MOD. GK-M



| Código | Ø | A | B | C | D | F | L | ØM | N | Peso [g] |
|-------------|-----|----|----|----|----------|----|----|----|----|----------|
| W0950200020 | 20 | 16 | 8 | 16 | M8 | 32 | 42 | 8 | 22 | 48 |
| W0950200025 | 25 | 16 | 8 | 16 | M8 | 32 | 42 | 8 | 22 | 48 |
| W0950322020 | 32 | 20 | 10 | 20 | M10x1.25 | 40 | 52 | 10 | 26 | 92 |
| W0950322025 | 40 | 20 | 10 | 20 | M10x1.25 | 40 | 52 | 10 | 26 | 92 |
| W0950402020 | 50 | 24 | 12 | 24 | M12x1.25 | 48 | 62 | 12 | 32 | 148 |
| W0950402025 | 63 | 24 | 12 | 24 | M12x1.25 | 48 | 62 | 12 | 32 | 148 |
| W0950502020 | 80 | 32 | 16 | 32 | M16x1.5 | 64 | 83 | 16 | 40 | 340 |
| W0950502025 | 100 | 32 | 16 | 32 | M16x1.5 | 64 | 83 | 16 | 40 | 340 |

Nota: n. 1 pieza para confección

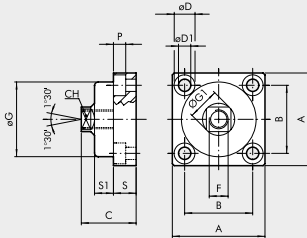
ROTULA - MOD. GA-M



| Código | Ø | A | B | B1 | C | CH | D | F | ØG | ØG1 | L | ØM | Peso [g] |
|-------------|-----|----|----|------|----|----|----------|----|------|-----|----|----|----------|
| W0950200025 | 20 | 24 | 12 | 9 | 13 | 14 | M8 | 36 | 12.5 | 16 | 48 | 8 | 50 |
| W0950200025 | 25 | 24 | 12 | 9 | 13 | 14 | M8 | 36 | 12.5 | 16 | 48 | 8 | 50 |
| W0950322025 | 32 | 28 | 14 | 10.5 | 15 | 17 | M10x1.25 | 43 | 15 | 19 | 57 | 10 | 78 |
| W0950322025 | 40 | 28 | 14 | 10.5 | 15 | 17 | M10x1.25 | 43 | 15 | 19 | 57 | 10 | 78 |
| W0950402025 | 50 | 32 | 16 | 12 | 17 | 19 | M12x1.25 | 50 | 17.5 | 22 | 66 | 12 | 116 |
| W0950402025 | 63 | 32 | 16 | 12 | 17 | 19 | M12x1.25 | 50 | 17.5 | 22 | 66 | 12 | 116 |
| W0950502025 | 80 | 42 | 21 | 15 | 23 | 22 | M16x1.5 | 64 | 22 | 27 | 85 | 16 | 226 |
| W0950502025 | 100 | 42 | 21 | 15 | 23 | 22 | M16x1.5 | 64 | 22 | 27 | 85 | 16 | 226 |

Nota: n. 1 pieza para confección

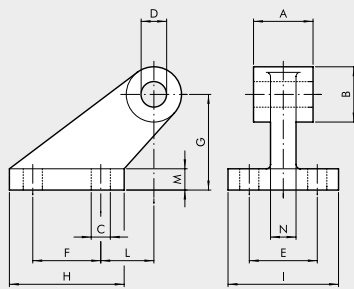
CHARNELA JUNTA DE COMPENSACIÓN - MOD. GA



| Código | Ø | A | B | C | CH | øD | øD1 | F | øG | ØG1 | P | S | S1 | Peso [g] |
|-------------|-----|----|----|----|----|----|------|----------|------|-----|------|----|------|----------|
| W0950326021 | 32 | 49 | 36 | 30 | 13 | 11 | 6.5 | M10x1.25 | 39.5 | 17 | 6.5 | 12 | 10 | 172 |
| W0950326021 | 40 | 49 | 36 | 30 | 13 | 11 | 6.5 | M10x1.25 | 39.5 | 17 | 6.5 | 12 | 10 | 172 |
| W0950406021 | 50 | 59 | 42 | 36 | 15 | 14 | 8.5 | M12x1.25 | 44 | 19 | 8.5 | 15 | 13.5 | 286 |
| W0950406021 | 63 | 59 | 42 | 36 | 15 | 14 | 8.5 | M12x1.25 | 44 | 19 | 8.5 | 15 | 13.5 | 286 |
| W0950506021 | 80 | 79 | 58 | 44 | 22 | 17 | 10.5 | M16x1.5 | 59 | 26 | 10.5 | 20 | 15 | 628 |
| W0950506021 | 100 | 79 | 58 | 44 | 22 | 17 | 10.5 | M16x1.5 | 59 | 26 | 10.5 | 20 | 15 | 628 |

Nota: n. 1 pieza para confección

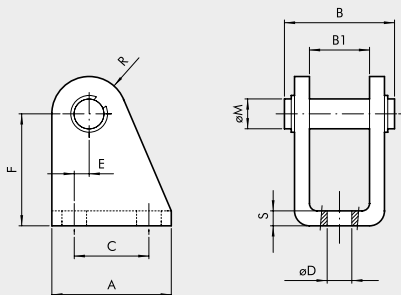
CONTRACHARNELA CETOP Ø 32÷100



| Código | Ø | A | B | C | D | E | F | G | H | I | L | M | N | Peso [g] |
|-------------|-----|----|----|----|----|----|----|----|-----|----|----|----|----|----------|
| W0950322008 | 32 | 26 | 19 | 7 | 10 | 25 | 20 | 32 | 37 | 41 | 18 | 8 | 10 | 96 |
| W0950402008 | 40 | 28 | 26 | 9 | 12 | 32 | 32 | 45 | 54 | 52 | 25 | 10 | 12 | 216 |
| W0950502008 | 50 | 32 | 26 | 9 | 12 | 32 | 32 | 45 | 54 | 52 | 25 | 10 | 12 | 212 |
| W0950632008 | 63 | 40 | 33 | 11 | 16 | 40 | 50 | 63 | 75 | 63 | 32 | 12 | 15 | 440 |
| W0950802008 | 80 | 50 | 33 | 11 | 16 | 40 | 50 | 63 | 75 | 63 | 32 | 12 | 15 | 464 |
| W0951002008 | 100 | 60 | 44 | 14 | 20 | 50 | 70 | 90 | 103 | 80 | 40 | 16 | 22 | 985 |

Nota: servida completa de n. 4 tornillos, n. 4 arandela

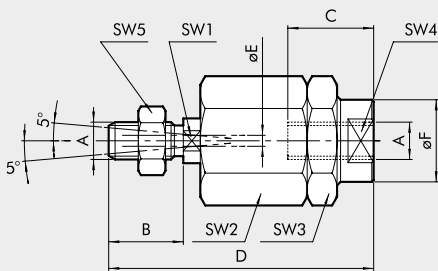
CONTRACHARNELA Ø 16÷25 - MOD. BC



| Código | Ø | A | B | B1 | C | øD | E | F | øM | R | S | Peso [g] |
|-------------|----|----|----|----|----|-----|---|----|----|----|---|----------|
| W0950200005 | 20 | 32 | 30 | 16 | 20 | 6.5 | 4 | 30 | 8 | 10 | 4 | 78 |
| W0950200005 | 25 | 32 | 30 | 16 | 20 | 6.5 | 4 | 30 | 8 | 10 | 4 | 78 |

Nota: servida completa de n. 1 pasador, n. 2 seeger

HOQUILLA AUTOALINEANTE - MOD. GA-K



| Código | Ø | A | B | C | D | øE | øF | SW1 | SW2 | SW3 | SW4 | SW5 | Peso [g] |
|-------------|-----|----------|----|----|-----|----|------|-----|-----|-----|-----|-----|----------|
| W0950200030 | 20 | M8 | 20 | 20 | 57 | 4 | 12.5 | 7 | 17 | 17 | 11 | 13 | 56 |
| W0950200030 | 25 | M8 | 20 | 20 | 57 | 4 | 12.5 | 7 | 17 | 17 | 11 | 13 | 56 |
| W0950322030 | 32 | M10x1.25 | 20 | 20 | 71 | 4 | 22 | 12 | 30 | 30 | 19 | 17 | 216 |
| W0950322030 | 40 | M10x1.25 | 20 | 20 | 71 | 4 | 22 | 12 | 30 | 30 | 19 | 17 | 216 |
| W0950402030 | 50 | M12x1.25 | 24 | 20 | 75 | 4 | 22 | 12 | 30 | 30 | 19 | 19 | 220 |
| W0950402030 | 63 | M12x1.25 | 24 | 20 | 75 | 4 | 22 | 12 | 30 | 30 | 19 | 19 | 220 |
| W0950502030 | 80 | M16x1.5 | 32 | 32 | 103 | 4 | 32 | 20 | 41 | 41 | 30 | 24 | 620 |
| W0950502030 | 100 | M16x1.5 | 32 | 32 | 103 | 4 | 32 | 20 | 41 | 41 | 30 | 24 | 620 |

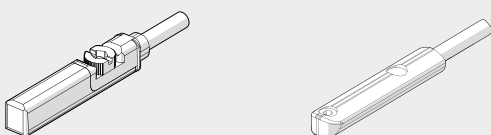
Nota: n. 1 pieza para confección

SENSOR RETRÁCTIL

SENSOR TIPO CUADRADO
Última generación, fijación segura

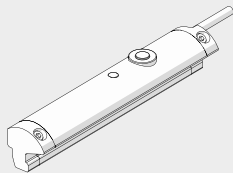
SENSOR TIPO OVALADO
Tradicional

Para códigos y datos técnicos generales, véase el capítulo A6.



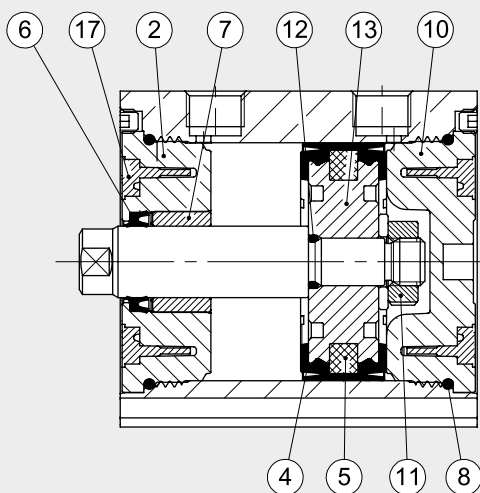
SENSORES DE POSICIÓN LTS

Para "Datos técnicos generales" y detalles de uso, véase el capítulo A6.



RECAMBIOS PARA CILINDROS COMPACTOS ISO 21287

CILINDROS COMPACTOS ISO 21287 (VERSIÓN POLIURETANO)



| Código | Diámetro | Tipología | Partes |
|--------------|-------------------|-----------------------------------------------------|----------------------------|
| 009 ... L001 | Ø 20, 25 | Kit completo juntas poliuretano | 4 6 8 |
| 009 ... L001 | Ø 32 ÷ 63 | Kit completo juntas poliuretano | 4 6 8 12 17 |
| 009 ... L001 | Ø 80, 100 | Kit completo juntas poliuretano | 4 6 8 12 |
| 009 ... L008 | Ø 20, 25 | Kit completo juntas FKM/FPM (alta temperatura) | 4 6 8 |
| 009 ... L008 | Ø 32 ÷ 63 | Kit completo juntas FKM/FPM (alta temperatura) | 4 6 8 12 17 |
| 009 ... L008 | Ø 80, 100 | Kit completo juntas FKM/FPM (alta temperatura) | 4 6 8 12 |
| 009 ... 7013 | Ø 20 ÷ 100 | Kit de junta de vástago de poliuretano | 6 |
| 009 ... 7014 | Ø 20 ÷ 100 | Kit de juntas de vástago FKM/FPM | 6 |
| 009 ... L101 | Ø 20, 25, 80, 100 | Kit culata frontal std | 2 6 7 8 |
| 009 ... L101 | Ø 32 ÷ 63 | Kit culata frontal std | 2 6 7 8 17 |
| 009 ... L201 | Ø 20, 25, 80, 100 | Kit culata trasero std | 8 10 |
| 009 ... L201 | Ø 32 ÷ 63 | Kit culata trasero std | 8 10 17 |
| 009 ... 7401 | Ø 20, 25 | Kit pistón poliuretano | 4 5 11 |
| 009 ... L401 | Ø 32 ÷ 63 | Kit pistón poliuretano | 4 5 11 12 13 17 |
| 009 ... 7401 | Ø 80 ÷ 100 | Kit pistón poliuretano | 4 5 11 12 13 |
| 009 ... 7501 | Ø 20, 25, 80, 100 | Magneto | 5 |
| 009 ... L501 | Ø 32 ÷ 63 | Magneto | 5 17 |
| 009 ... L901 | Ø 20, 25 | Kit culata frontal + trasero + pistón (poliuretano) | 2 4 5 6 7 8 10 11 |
| 009 ... L901 | Ø 32 ÷ 63 | Kit culata frontal + trasero + pistón (poliuretano) | 2 4 5 6 7 8 10 11 12 13 17 |
| 009 ... L901 | Ø 80, 100 | Kit culata frontal + trasero + pistón (poliuretano) | 2 4 5 6 7 8 10 11 12 13 |