



## HALFEN

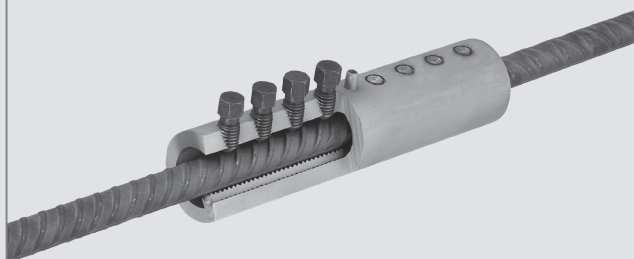
### HALFEN MBT

INST\_MBT 05/17

**(GB)** Reinforcement coupler

**(D)** Bewehrungsanschluss

**(ES)** Manguito de conexión



**Assembly Instructions • Montageanleitung • Instrucciones de montaje**

Batch no. • Chargen-Nr.

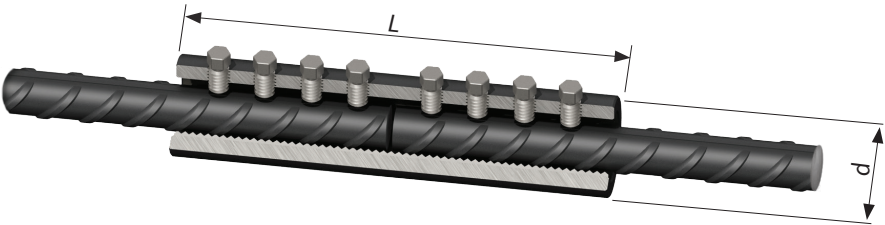
**Imagine. Model. Make.**

English

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Español

Identification and Dimensions

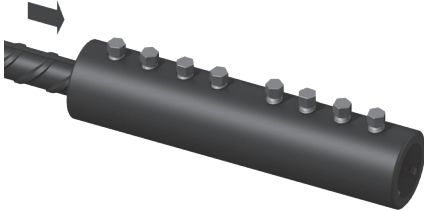


|                                    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Identification                     | T10   | T12   | T14   | T16   | T18   | T20   | T22   | T25   | T26   | T28   | T30   | T32   | T36   | T40   |
| Rebar $\varnothing$ [mm]           | 10    | 12    | 14    | 16    | 18*   | 20    | 22*   | 25    | 26*   | 28    | 30*   | 32*   | 36*   | 40*   |
| Order no. 0710.010-                | 00002 | 00003 | 00004 | 00005 | 00012 | 00006 | 00013 | 00007 | 00014 | 00008 | 00015 | 00009 | 00016 | 00010 |
| Outer coupler $\varnothing$ d [mm] | 33.4  | 33.4  | 42.2  | 42.2  | 48.3  | 48.3  | 48.3  | 54.0  | 66.7  | 66.7  | 71.0  | 71.0  | 85.0  | 81.0  |
| Coupler length L [mm]              | 100   | 140   | 160   | 160   | 204   | 204   | 248   | 258   | 312   | 312   | 312   | 312   | 484   | 484   |
| Socket size [mm]                   | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 16    | 16    | 16    | 16    | 16    | 19    | 19    |
| Number of screws                   | 4     | 6     | 6     | 6     | 8     | 8     | 10    | 8     | 10    | 10    | 10    | 10    | 14    | 14    |
| Weight [kg]                        | 0.52  | 0.72  | 1.25  | 1.25  | 2.00  | 1.96  | 2.38  | 3.00  | 5.91  | 5.80  | 6.68  | 6.50  | 15.30 | 11.30 |

\* Couplers of these diameters are not included in the approval.

## Installation

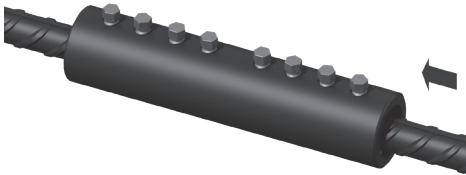
1



1

Place the coupler over the end of the first rebar until it hits the pin; if the pin is missing, place the coupler halfway onto the rebar ( $\pm 6$  mm). Hand-tighten the lock-shear-screws to secure the coupler. Check the alignment and make any required adjustments.

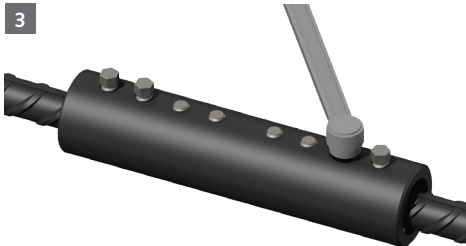
2



2

Place the second rebar into the coupler until it pushes up against the first bar / pin. Supporting the weight of the rebar, hand-tighten the remaining lock-shear-screws. Check the alignment and make adjustments if necessary.

3



3

Check if the coupler is in the correct position; then fully tighten the lock-shear-screws using either a ratchet wrench or a power screwdriver until all screw heads have sheared off. Do **not use impact tools or extensions** on the ratchet. Tighten the innermost screws first until the heads shear off. Repeat the process with the other screw heads.

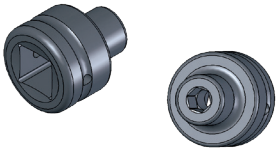
English

Deutsch

Español

Assembly Tools

For maximum efficiency we recommend using an electric screwdriver to shear off the screws. Up to a bar diameter of 22 mm the screws in the coupler can be sheared off manually using a 1" ratchet. A power screwdriver is the ideal tool to manually tighten 25 mm to 40 mm MBT couplers. All tools and corresponding special socket-heads can be purchased or hired from HALFEN.



| Coupler | Number of screws | Socket size | Torque [Nm] |
|---------|------------------|-------------|-------------|
| MBT T10 | 4                | 13 (1/2")   | 55          |
| MBT T12 | 6                | 13 (1/2")   | 55          |
| MBT T14 | 6                | 13 (1/2")   | 108         |
| MBT T16 | 6                | 13 (1/2")   | 108         |
| MBT T18 | 8                | 13 (1/2")   | 108         |
| MBT T20 | 8                | 13 (1/2")   | 108         |
| MBT T22 | 10               | 13 (1/2")   | 108         |
| MBT T25 | 8                | 16 (5/8")   | 275         |
| MBT T26 | 10               | 16 (5/8")   | 275         |
| MBT T28 | 10               | 16 (5/8")   | 275         |
| MBT T30 | 10               | 16 (5/8")   | 360         |
| MBT T32 | 10               | 16 (5/8")   | 360         |
| MBT T36 | 14               | 19 (3/4")   | 600         |
| MBT T40 | 14               | 19 (3/4")   | 525         |

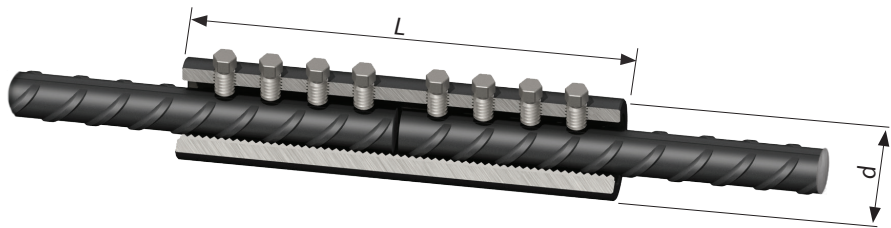
| Number of couplers                                                                                           |    |                                                                                                                 |    |
|--------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------|----|
| 5                                                                                                            | 10 | 15                                                                                                              | 20 |
|  <p>Ratchet</p>           |    |  <p>Electric screwdriver</p> |    |
|  <p>Power screwdriver</p> |    |                              |    |

Kennzeichnung und Abmessung

English

Deutsch

Español

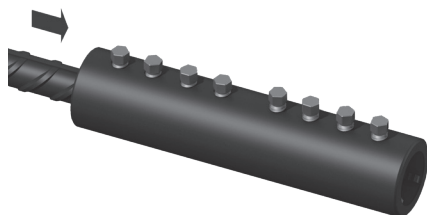


|                                    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Kennzeichnung                      | T10   | T12   | T14   | T16   | T18   | T20   | T22   | T25   | T26   | T28   | T30   | T32   | T36   | T40   |
| Stab $\varnothing$ [mm]            | 10    | 12    | 14    | 16    | 18*   | 20    | 22*   | 25    | 26*   | 28    | 30*   | 32*   | 36*   | 40*   |
| Bestell-Nr. 0710.010-              | 00002 | 00003 | 00004 | 00005 | 00012 | 00006 | 00013 | 00007 | 00014 | 00008 | 00015 | 00009 | 00016 | 00010 |
| Äußerer $\varnothing$ Muffe d [mm] | 33,4  | 33,4  | 42,2  | 42,2  | 48,3  | 48,3  | 48,3  | 54,0  | 66,7  | 66,7  | 71,0  | 71,0  | 85,0  | 81,0  |
| Muffenlänge L [mm]                 | 100   | 140   | 160   | 160   | 204   | 204   | 248   | 258   | 312   | 312   | 312   | 312   | 484   | 484   |
| Schlüsselweite [mm]                | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 16    | 16    | 16    | 16    | 16    | 19    | 19    |
| Anzahl der Schrauben               | 4     | 6     | 6     | 6     | 8     | 8     | 10    | 8     | 10    | 10    | 10    | 10    | 14    | 14    |
| Gewicht [kg]                       | 0,52  | 0,72  | 1,25  | 1,25  | 2,00  | 1,96  | 2,38  | 3,00  | 5,91  | 5,80  | 6,68  | 6,50  | 15,30 | 11,30 |

\* Muffen für diese Durchmesser sind nicht Bestandteil der Zulassung.

## Einbau

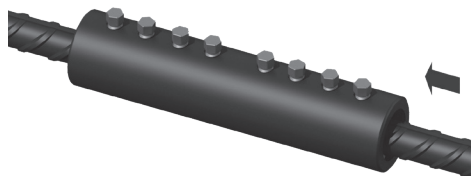
1



1

Die Kupplung wird über das Ende des ersten Bewehrungsstabes bis zum Sicherungsstift geschoben, oder falls dieser fehlt, bis zur halben Kupplungslänge ( $\pm 6$  mm). Dann werden die Scherschrauben per Hand angezogen, um die Kupplung zu fixieren. Nach einer Kontrolle, ob die Kupplung richtig platziert ist, können noch Korrekturen durchgeführt werden.

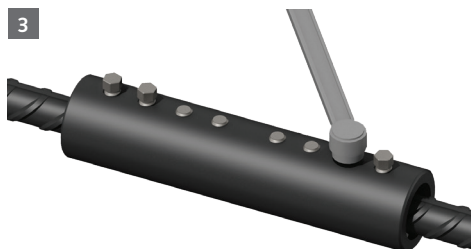
2



2

Der zweite Bewehrungsstab wird nun bis zum Anschlag an den ersten Stab / Sicherungsstift eingebracht. Während das Gewicht des Stabes abgestützt wird, zieht man die verbleibenden Schrauben von Hand an. Nach einer Kontrolle, ob der Stab richtig platziert ist, können noch Korrekturen durchgeführt werden.

3



3

Ist die Kupplung korrekt platziert, werden alle Scherschrauben mit einer Umschaltknarre oder einem Elektroschrauber solange angezogen, bis der Schraubenkopf abschert.

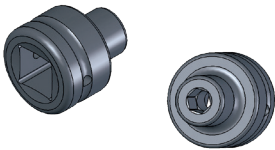
Es dürfen **keine Rohre** als Verlängerung für die Umschaltknarre und **keine Schlagschrauber** verwendet werden.

Es sollten die jeweils inneren Schrauben als erstes angezogen werden. Sind alle Schraubenköpfe abgeschert, ist die Kupplung fertig montiert.

Montagewerkzeuge

Für ein möglichst effizientes Abscheren der Schrauben empfehlen wir die Verwendung eines Elektroschraubers. Für Muffen bis Stabdurchmesser 22 mm können die Schrauben manuell mit einer Umschaltknarre 1-Zoll abgesichert werden.

Der Kraftschrauber ist die ideale Ergänzung für die manuelle Montage der MBT Muffen 25 bis 40 mm. Alle Werkzeuge und zugehörigen Spezialnüsse können bei HALFEN gekauft oder gemietet werden.



| Muffe   | Anzahl Scherschrauben | Schlüsselweite | Drehmoment [Nm] |
|---------|-----------------------|----------------|-----------------|
| MBT T10 | 4                     | 13 (1/2")      | 55              |
| MBT T12 | 6                     | 13 (1/2")      | 55              |
| MBT T14 | 6                     | 13 (1/2")      | 108             |
| MBT T16 | 6                     | 13 (1/2")      | 108             |
| MBT T18 | 8                     | 13 (1/2")      | 108             |
| MBT T20 | 8                     | 13 (1/2")      | 108             |
| MBT T22 | 10                    | 13 (1/2")      | 108             |
| MBT T25 | 8                     | 16 (5/8")      | 275             |
| MBT T26 | 10                    | 16 (5/8")      | 275             |
| MBT T28 | 10                    | 16 (5/8")      | 275             |
| MBT T30 | 10                    | 16 (5/8")      | 360             |
| MBT T32 | 10                    | 16 (5/8")      | 360             |
| MBT T36 | 14                    | 19 (3/4")      | 600             |
| MBT T40 | 14                    | 19 (3/4")      | 525             |

Anzahl Muffen

5

10

15

20



Umschaltknarre



Kraftschrauber



Elektroschrauber

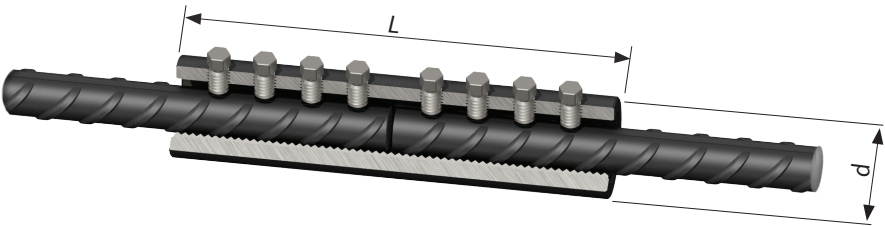


English

Deutsch

Español

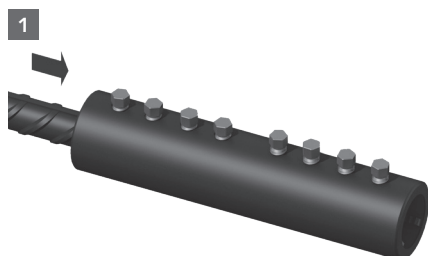
Identificación y Dimensiones



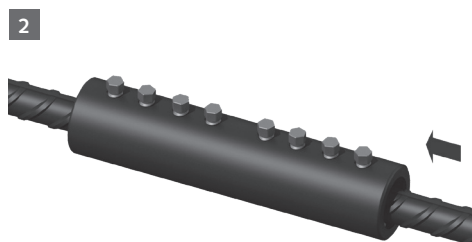
|                                        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Identificación                         | T10   | T12   | T14   | T16   | T18   | T20   | T22   | T25   | T26   | T28   | T30   | T32   | T36   | T40   |
| Barra $\varnothing$ [mm]               | 10    | 12    | 14    | 16    | 18*   | 20    | 22*   | 25    | 26*   | 28    | 30*   | 32*   | 36*   | 40*   |
| Referencia no. 0710.010-               | 00002 | 00003 | 00004 | 00005 | 00012 | 00006 | 00013 | 00007 | 00014 | 00008 | 00015 | 00009 | 00016 | 00010 |
| exterior manguito $\varnothing$ d [mm] | 33.4  | 33.4  | 42.2  | 42.2  | 48.3  | 48.3  | 48.3  | 54.0  | 66.7  | 66.7  | 71.0  | 71.0  | 85.0  | 81.0  |
| Longitud manguito L [mm]               | 100   | 140   | 160   | 160   | 204   | 204   | 248   | 258   | 312   | 312   | 312   | 312   | 484   | 484   |
| Métrica tornillo [mm]                  | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 16    | 16    | 16    | 16    | 16    | 19    | 19    |
| Número de tornillos                    | 4     | 6     | 6     | 6     | 8     | 8     | 10    | 8     | 10    | 10    | 10    | 10    | 14    | 14    |
| Peso [kg]                              | 0.52  | 0.72  | 1.25  | 1.25  | 2.00  | 1.96  | 2.38  | 3.00  | 5.91  | 5.80  | 6.68  | 6.50  | 15.30 | 11.30 |

\* los manguitos de este diámetro no está recogido en el certificado

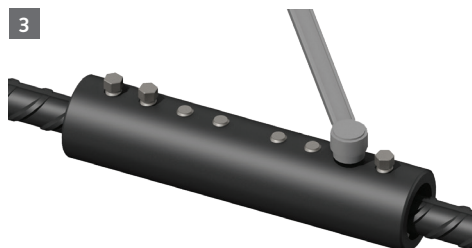
## Instalación



- 1 Coloque el manguito en el extremo de una barra hasta la mitad de su la longitud ( $\pm 6$  mm), y girar los tornillos manualmente con el fin de inmovilizar la barra. Compruebe la alineación, y hacer los ajustes necesarios.



- 2 Coloque el extremo de la otra barra en el otro extremo del manguito hasta que la barra toque contra la primera, y girar los tornillos restantes manualmente con el fin de inmovilizar la segunda barra. Compruebe la alineación y realice los ajustes necesarios.



- 3 Compruebe si el manguito está en la posición correcta; luego apriete completamente los tornillos de bloqueo de seguridad usando una llave adecuada. En la primera mitad del manguito, comenzando desde el centro y trabajando hacia fuera, apretar parcialmente todos los tornillos usando la herramienta adecuada. No utilice herramienta de impacto. No es apropiado el uso de tubos o puntales como alargadores de las llaves; esto puede aumentar los esfuerzos, alcanzando la rotura de los tornillos antes de tiempo.

Empezando desde el centro del manguito, apretar completamente los tornillos de forma alterna hacia fuera hasta que la cabeza de los mismos rompa.

Repetir el mismo procedimiento en la otra mitad del manguito.

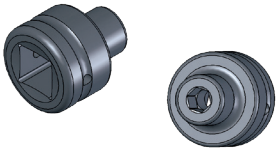
English

Deutsch

Español

Herramientas para el montaje

Para una máxima eficiencia le recomendamos utilizar un destornillador para cortar los tornillos. Hasta un diámetro de barra de 22 mm, los tornillos del acoplador pueden cortarse manualmente utilizando un trinquete de 1". Un destornillador eléctrico es la herramienta ideal para apretar manualmente los acopladores MBT de 25 mm a 40 mm. Todas las herramientas y las correspondientes cabezas de conexión especiales se pueden comprar o contratar en HALFEN.



| Manguito | Número de tornillos | Métrica del tornillo | Parde apriete de los tornillos [Nm] |
|----------|---------------------|----------------------|-------------------------------------|
| MBT T10  | 4                   | 13 (1/2")            | 55                                  |
| MBT T12  | 6                   | 13 (1/2")            | 55                                  |
| MBT T14  | 6                   | 13 (1/2")            | 108                                 |
| MBT T16  | 6                   | 13 (1/2")            | 108                                 |
| MBT T18  | 8                   | 13 (1/2")            | 108                                 |
| MBT T20  | 8                   | 13 (1/2")            | 108                                 |
| MBT T22  | 10                  | 13 (1/2")            | 108                                 |
| MBT T25  | 8                   | 16 (5/8")            | 275                                 |
| MBT T26  | 10                  | 16 (5/8")            | 275                                 |
| MBT T28  | 10                  | 16 (5/8")            | 275                                 |
| MBT T30  | 10                  | 16 (5/8")            | 360                                 |
| MBT T32  | 10                  | 16 (5/8")            | 360                                 |
| MBT T36  | 14                  | 19 (3/4")            | 600                                 |
| MBT T40  | 14                  | 19 (3/4")            | 525                                 |

| Número de manguitos                                                                                                  |    |                                                                                                                           |    |
|----------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------|----|
| 5                                                                                                                    | 10 | 15                                                                                                                        | 20 |
|  <p>Llave manual de carraca</p>   |    |  <p>Taladro eléctrico con reductor</p> |    |
|  <p>Llave manual con reductor</p> |    |                                        |    |

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