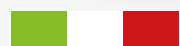


BOCCOLE IN ACCIAIO CEMENTATE HARDENED STEEL BUSHINGS





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get the difference



L'azienda

Da oltre 40 anni **Sibo è un'azienda leader nella produzione di boccole in acciaio** (standard o su specifiche del cliente) **per il Primo Equipaggiamento delle Macchine da Costruzione e da Perforazione, delle Macchine Agricole, dei Cilindri Oleodinamici e delle Attrezzature.** L'azienda, che si avvale di un'area coperta di oltre 8.000 mq vanta una capacità produttiva di oltre 2 milioni di boccole all'anno grazie ad un parco macchine moderno e costantemente rinnovato.

A partire da Marzo 2007, S.I.BO. ha un Sistema di Gestione Integrato (Qualità, Ambiente, Sicurezza) certificato n° 1250 secondo le normative:

- UNI EN ISO 9001-2008
- UNI EN ISO 14001-2004
- OHSAS 18001 - 2007



Sibo assiste i propri clienti offrendo un sistema di integrazione online sulle loro piattaforme rendendo la collaborazione più semplice e veloce.



🇬🇧 Company profile

After 40 years of business activity, Sibò today possesses know-how and sound experience in the production of steel bushes (standard or upon customer's specifications) for the Original Equipment Market of Construction and Drilling Machines, Agricultural Machinery, and Oil Hydraulic Cylinders and Equipment. The company's production facility covers a surface area of over 8,000 sqm, and it has a workforce of more than forty people. Sibò has a production capacity of over 2 million bushes/year thanks to its modern and regularly renewed range of machinery. Since March 2007 Sibò has an integrated management system (Quality, Environment, Safety & Security) certificate no. 1250, according to the norms:

- UNI EN ISO 9001-2008
- UNI EN ISO 14001-2004
- OHSAS 18001-2007

Sibò assists its customers by offering an online integration system on their platforms, making collaboration easier and faster.

🇫🇷 Profile de la société

Après 40 ans d'activité, Sibò possède aujourd'hui un savoir-faire et une expérience solides dans la production de bagues en acier (standards ou conformes aux spécifications du client) pour le premier équipement des machines de construction et de perforation, des machines agricoles, des vérins oléohydrauliques et autres équipements. L'entreprise Sibò opère sur une aire industrielle plus de 8.000 m² d'espace couvert, et emploie plus d'une quarantaine de personnes. Sa capacité de production dépasse les 2 millions de bagues par an grâce à un parc de machines moderne, constamment réactualisé.

A partir du mois de mars 2007, Sibò a un Système de Gestion Intégré (Qualité, Environnement, Sécurité) certificat n° 1250 selon les réglementations:

- UNI EN ISO 9001-2008
- UNI EN ISO 14001-2004
- OHSAS 18001-2007

Sibò assiste ses clients en leur proposant un système d'intégration online sur leurs plateformes, facilitant et accélérant la collaboration

🇩🇪 Firmenprofil

Nach 40 Jahre Aktivität ist Sibò heute im Besitz des erforderlichen Know-Hows für die Produktion von Stahlbuchsen (Standard oder nach Kundenangaben) für die Erstausrüstung von Konstruktions-, Perforations- und Landmaschinen, öldynamischen Zylindern und Werkzeugen. Das Unternehmen ist auf einer bebauten Fläche von mehr als 8.000 m² und zählt um vierzig Beschäftigte. Sibò verfügt über eine Produktionskapazität von mehr als 2 Millionen Buchsen je Jahr, dank eines modernen und konstant erneuerten Maschinenparks. Seit März 2007 besitzt Sibò ein integriertes Managementsystem (Qualität, Umwelt, Sicherheit) mit dem Zertifikat Nummer 1250 gemäß den Normen:

- UNI EN ISO 9001-2008
- UNI EN ISO 14001-2004
- OHSAS 18001-2007

Sibò unterstützt seine Kunden mit einem Online-Integrationssystem auf ihren Plattformen, das die Zusammenarbeit einfacher und schneller macht.

Prodotti

I prodotti Sibò sono il frutto di anni di esperienza, di continui **investimenti** in Ricerca e Sviluppo nonché di sofisticati macchinari che garantiscono un prodotto unico nel suo genere.

Le nostre boccole sono una **combinazione di materia prima** realizzata su **specifiche Sibò** e **Trattamenti termici ad hoc** atti a valorizzare al meglio le caratteristiche meccaniche del pezzo; questo

garantisce ai nostri prodotti **performance elevate, cicli di vita più lunghi e intervalli di ingrassaggio** fino ad un massimo di **550 ore**.

L'intero processo produttivo è tenuto sotto controllo, dall'arrivo delle materie prime alla spedizione del prodotto finito, fino al rigoroso controllo finale, garantendo in tal modo il sistematico rispetto delle specifiche previste.



BOCCOLE STANDARD STANDARD BUSHINGS



BOCCOLE A BATTUTA FLANGE BUSHINGS



BOCCOLE FRENO CUSHION BUSHINGS



BOCCOLE SPECIALI SPECIAL BUSHINGS



BOCCOLE JOLLY™ JOLLY BUSHINGS™

Products

Sibò items are the outcome of years of experience, of ongoing investments in research and development, as well as groundbreaking machinery that guarantee "one of a kind" products. Our bushes are a combination of raw material made according to Sibò specifications and purpose-designed heat treatments to better enhance the mechanical features of the piece; this means that our products' performance is high, offers a longer service life and greasing intervals of up to a maximum of 550 h. Strict controls are carried out throughout the whole manufacturing process right from the stage of incoming raw materials to the finished product, packing and dispatch to meet the required specifications.

Produits

Les produits Sibò sont le fruit d'années d'expérience, de constants investissements en recherche et développement ainsi que de machines sophistiquées qui garantissent un produit unique en son genre. Les bagues Sibò sont une combinaison de matière première réalisée sur spécifications Sibò avec des traitements thermiques ad hoc pour valoriser au mieux les caractéristiques mécaniques de la pièce; cela permet de garantir à nos produits de hautes performances, des cycles de vie plus longs et des fréquences de graissage d'un maximum de 550 h. Des contrôles rigoureux sont effectués pendant tout le processus de production, de l'arrivée des matières premières à l'expédition et un minutieux contrôle final garantit le respect scrupuleux des tolérances par rapport aux spécifications prévues.

Produkte

Die Produkte von Sibò sind das Ergebnis jahrelanger Erfahrung, beständiger Investitionen in die Bereiche Forschung und Entwicklung sowie hoch entwickelter Maschinen, die ein in diesem Bereich einzigartiges Produkt garantieren. Unsere Buchsen stammen aus der Kombination von gemäß der Spezifikationen Sibò hergestellten Rohmaterialien und ad hoc ausgeführten Thermobehandlungen, die die mechanischen Eigenschaften der Teile bestens valorisieren. Dies garantiert die hohe Leistungsstärke unserer Produkte, eine längere Lebensdauer sowie längere Schmierintervalle von bis zu maximal 550 Stunden. Der gesamte Produktionsprozess ist während seines Fortgangs unter vollkommener Kontrolle, von der Ankunft des Rohmaterials bis zur Auslieferung. Auf diese Weise kann systematisch Rücksicht auf die gewünschte Spezifikation genommen werden.

Materia prima standard

Sibo garantisce la costanza di qualità dei suoi prodotti, utilizzando un acciaio speciale a forcella chimica controllata. Questo permette di mantenere costanti le caratteristiche chimico/fisiche del prodotto per ogni lotto e di assicurare sempre una profondità di cementazione prefissata. Il materiale Standard è l'acciaio E410 classificato dalla norma internazionale EN10305, per i diametri da Ø 30 mm a Ø 115 (specifica SIBO); per tutte le dimensioni superiori o particolari l'acciaio impiegato può essere o E355 (ex Fe510, norma EN10297) o E470 (norma EN 10297).

Al fine di garantire ai propri clienti l'evasione puntuale degli ordini ed una garanzia continuativa di servizio, viene mantenuto uno stock di materia prima superiore alle 400 ton.

I materiali impiegati per le nostre produzioni sono:

(The raw materials used in our production could be):

Acciaio/Steel E410 (EN 10305)

Werkst. N° 1.0509 Acciaio/Steel 16MnCr5 (EN10305)

Werkst. N° 1.7131

Materiale utilizzato per la produzione con Ø esterno >115 mm e dimensioni escluse dalla tabella standard:

(Material used in the production of non-standard dimension bushes with outer Ø > 115 mm):

Acciaio/Steel E355 (EN10297) Werkst. N° 1.0580

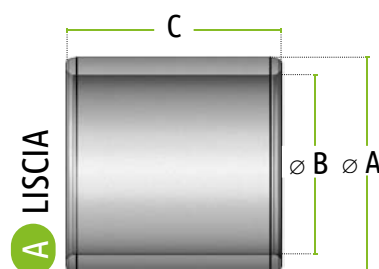
Acciaio/Steel E470 (EN10297) Werkst. N° 1.0536

| Ø mm ESTERNO OUTSIDE | Ø mm INTERNO INSIDE | Ø mm ESTERNO OUTSIDE | Ø mm INTERNO INSIDE | Ø mm ESTERNO OUTSIDE | Ø mm INTERNO INSIDE |
|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|
| 30 | 20 | 60 | 40 | 85 | 75 |
| 35 | 25 | 65 | 55 | 85 | 70 |
| 40 | 30 | 65 | 50 | 90 | 80 |
| 40 | 25 | 65 | 45 | 90 | 75 |
| 45 | 35 | 70 | 60 | 90 | 70 |
| 45 | 25 | 70 | 55 | 95 | 85 |
| 48 | 38 | 70 | 50 | 95 | 80 |
| 50 | 40 | 70 | 45 | 100 | 90 |
| 50 | 35 | 70 | 40 | 100 | 85 |
| 52 | 40 | 75 | 65 | 100 | 80 |
| 55 | 45 | 75 | 60 | 105 | 90 |
| 55 | 40 | 80 | 70 | 115 | 100 |
| 60 | 50 | 80 | 65 | | |
| 60 | 45 | 80 | 60 | | |

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GAMMA DIMENSIONALE PRODUCTION RANGE



Ø A diametro esterno/external diameter

Ø B diametro interno/internal diameter

C lunghezza/length

| A | B | C | A | B | C | A | B | C | A | B | C |
|---|---|-----|----|----|-----|----|----|-----|---|----|-----|
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| | | 55 | 45 | 35 | 65 | 60 | 50 | 65 | | 80 | 70 |
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Boccole standard Std Line™

La STD Line™ Sibio è una linea di boccole standard con tolleranze Sibio (\varnothing esterno u6 - \varnothing interno C8) sottoposta a trattamenti termici di Cementazione-Tempra e Rinvenimento con profondità di cementazione di 0.8-1 mm, durezza HRC 58-62, dopo rettifica (pezzo finito). La boccola, sottoposta a questo particolare trattamento termico atto a valorizzare al meglio le sue caratteristiche, si presta per essere utilizzata in ambienti dove vengono richieste eccellenti performance di resistenza all'usura e al grippaggio. Inoltre la bassa rugosità ottenuta con questo ciclo diminuisce il coefficiente di attrito generando quindi una maggiore efficienza della boccola. L'utilizzo di queste boccole permette, dopo un primo ingrassaggio iniziale, un intervallo di lubrificazione fino a un massimo di 550 ore (intervallo

variabile a seconda delle condizioni di lavoro). La STD Line™ è composta da una gamma di tipologie Standard (vedi pagina a lato) in grado di esaltare e valorizzare al meglio le richieste del cliente e che, per la gran parte dei casi – le tipologie e dimensioni maggiormente vendute –, sono sempre disponibili a magazzino. Sibio è inoltre in grado di produrre altre tipologie di boccole a richiesta e su disegno del cliente (vedi boccole esecuzione speciale). Si tratta di tipologie non disponibili a magazzino ma che vengono prodotte a richiesta. Ogni boccola è rintracciabile e riconoscibile grazie ad una marcatura indelebile impressa su ogni pezzo che ne identifica il lotto. Eventuali trattamenti superficiali e/o cicli termici differenti e/o marcature speciali si eseguono a richiesta del Cliente.

Standard bushes

Sibio's STD Line™ is a line of standard bushes with SIBO tolerances (\varnothing Outside u6 - \varnothing Inside C8) that undergo casehardening and tempering treatment with casehardening depth of 0.8-1 mm and Hardness HRC 58-62. When the bush undergoes this special thermal treatment to fully enhance its characteristics, it is suitable for use in environments requiring excellent resistance to wear and tear and seizing. The smoothness obtained with this cycle reduces the friction factor and consequently makes the bush more efficient. The use of these bushes, after an initial greasing cycle, enables a lubrication interval of up to 550 h. max. (the interval varies depending on the working conditions). The STD line™ consists of a standard range of types (see next page), which are able to fully enhance and meet the customers' requirements; moreover, in most cases (the most popularly sold types and dimensions), they are available from stock. Sibio also manufactures other types of bushes (see special bushes) on request and according to customers' drawings. These types of bushes are not kept in stock but are made to order. Each bush is traceable and identifiable thanks to the indelible marking on each piece, which identifies the lot.

Sagues standard

La "STD Line™" Sibio est une ligne de bagues standard aux tolérances SIBO (\varnothing externe u6 - \varnothing interne C8) soumises à des traitements thermiques de cémentation, de trempe et de revenu avec des profondeurs de cémentation de 0,8-1 mm, à dureté HRC 58-62. Soumise à ce traitement thermique particulier, qui permet d'en valoriser au mieux les caractéristiques, la bague peut être utilisée dans des environnements au sein desquels sont requis de très hautes performances de résistance à l'usure et au grippage. En outre, la faible rugosité que ce cycle permet d'obtenir, abaisse le coefficient de frottement et garantit conséquemment une plus haute efficacité de la bague. L'utilisation de ces bagues permet, à l'issue d'un premier graissage initial, un intervalle de graissage de 550 h maximum (fréquence variable en fonction des conditions de travail). La STD Line est constituée d'une gamme de types Standard (voir page ci-contre) qui sont en mesure d'exalter et de valoriser les exigences du client. Dans la plupart des cas (pour les types et les dimensions les plus vendus), ces bagues sont disponibles en stock. Sibio est également en mesure de produire d'autres types de bagues (voir fabrication de bagues spéciales) sur demande et sur dessin du client. Ces types de bagues ne sont pas disponibles en stock mais sont produits sur demande. La traçabilité de chaque bague est garantie par un marquage indélébile apposé sur chaque pièce qui permet d'en identifier le lot.

Standard bucsen

Bei der Sibo "STD Line™" handelt es sich um eine Standard-Buchsen-Linie gemäß SIBOToleranzen (\emptyset extern u6 - \emptyset intern C8), die die Thermobehandlungen Zementieren, Härten und Anlassen bei einer Tiefe der Zementierung von 0,8-1 mm, Härte HRC 58-62 vorsieht. Die dieser besonderen produktvalorisierenden Thermobehandlung unterzogene Buchse eignet sich zur Verwendung in Umgebungen, in denen ein extrem hoher Verschleiß- und Fresswiderstand erforderlich ist. Die Mithilfe dieses Zyklus erzielte geringe Rauheit verringert darüber hinaus den Abriebkoeffizienten, was ebenfalls die Leistungsstärke der Buchse erhöht. Die Verwendung dieser Buchsen gewährleistet nach einer ersten Initialschmierung Schmierintervalle von bis maximal 550 Stunden (variabel in Abhängigkeit von der Betriebssituation). Die STD-Line besteht aus einem Angebot an Standard-Typologien (siehe nebenstehende Seite), das Kundenanforderungen bestens gerecht wird und in den meisten Fällen (vorrangig verkaufte Typologien und Abmessungen) im Lager vorrätig ist. Sibo ist darüber hinaus in der Lage, auf Anfrage und nach Zeichnung des Kunden andere Buchsenarten zu produzieren (siehe Sonderanfertigungen von Buchsen). Diese Typologie wird nicht gelagert, sondern nur auf Anfrage produziert. Jede Buchse ist aufgrund einer das Los kennzeichnenden Prägung der Teile rückvollziehbar und erkennbar.

TOLLERANZE STANDARD STANDARD TOLERANCES

| \emptyset mm Esterno Outside | Toll. u6 (μ m) | \emptyset mm Interno Outside | Toll. C8 (μ m) |
|--------------------------------------|------------------------|--------------------------------------|------------------------|
| > 24 ≤ 30 | +61 +48 | > 18 ≤ 30 | +143 +110 |
| > 30 ≤ 40 | +76 +60 | > 30 ≤ 40 | +159 +120 |
| > 40 ≤ 50 | +86 +70 | > 40 ≤ 50 | +169 +130 |
| > 50 ≤ 65 | +106 +87 | > 50 ≤ 65 | +186 +140 |
| > 65 ≤ 80 | +121 +102 | > 65 ≤ 80 | +196 +150 |
| > 80 ≤ 100 | +146 +124 | > 80 ≤ 100 | +224 +170 |
| > 100 ≤ 120 | +166 +144 | > 100 ≤ 120 | +234 +180 |
| > 120 ≤ 140 | +195 +170 | > 120 ≤ 140 | +263 +200 |
| > 140 ≤ 160 | +215 +190 | > 140 ≤ 160 | +273 +210 |
| > 160 ≤ 180 | +235 +210 | > 160 ≤ 180 | +293 +230 |
| > 180 ≤ 200 | +265 +236 | > 180 ≤ 200 | +312 +240 |
| > 200 ≤ 225 | +287 +258 | > 200 ≤ 225 | +332 +260 |

Tipologie consigliate

Suggested types

LEGENDA

A
SP.U 1P

 Codice
(code)

 Descrizione ragnatura
(spiral oil groove description)

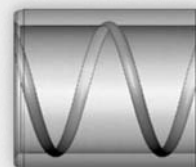
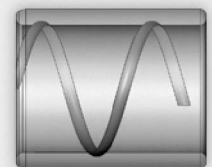
LISCIA

Plain


A L

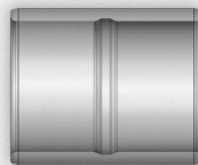
LISCIA RAGNATA

Plain with spiral oil groove


R SP.U

S SP.U 1P

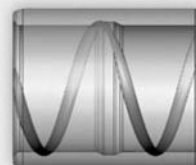
GOLA INTERNA

Plain with inside ring oil groove


H GI

GOLA INTERNA RAGNATA

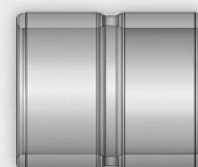
Plain with inside ring and spiral oil grooves


I SP.U

N SP.NU

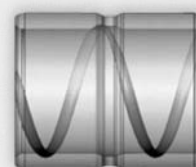
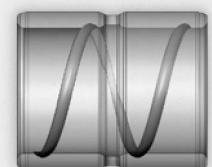
GOLE FORI

Ring grooves holes


B GF

GOLA INTERNA RAGNATA

Ring grooves holes spiral oil grooves


D SP.U

E SP.NU

Boccole freno

Il know-how e la solida esperienza nella produzione di boccole in acciaio ha permesso a Sibò di introdurre una nuova gamma di prodotto: le boccole freno o ammortizzatori. Le boccole ammortizzatore sono impiegate all'interno dei cilindri oleodinamici e permettono la "frenata" del cilindro stesso, evitando arresti

e strattoni bruschi alla macchina. Per la produzione di queste particolari boccole, Sibò utilizza un acciaio da cementazione che evita le rotture improvvise (di schianto) e garantisce lavorazioni di "precisione" grazie ai suoi macchinari altamente specializzati e innovativi. Non esiste un vero standard per questa boccola

in quanto il mercato è molto frammentato e con richieste specifiche di lavorazioni differenti. Sibò è in grado di soddisfare qualunque richiesta ed è in grado di eseguire lavorazioni di fresatura inclinate (piane, raggiate), di fresature frontali (quadrate e raggiate), di rettifiche dei piani, di filettatura ecc.



Cushion bushes

The expertise and solid experience in producing steel bushes have enabled Sibò to add a new product range: cushion or shock-absorbing bushes. The cushion bushes are fitted inside hydraulic cylinders and "brake" the cylinder gradually, avoiding sudden stopping and jerking movements of the machine. To produce these special bushes, Sibò uses a special case-hardened steel that avoids sudden breakages (crashing) and guarantees "precision" machining thanks to its highly specialised and innovative machinery. There is no real standard for this bush because the market is rather fragmented and there are different machining specifications. Sibò is able to meet any request and can perform inclined milling processes (flat, curved), front milling processes (square and curved) and grinding of planes, threading etc.

Bagues d'amortissement

Le savoir-faire et la solide expérience dans la production de bagues en acier, ont permis à Sibò de créer une nouvelle gamme de produits: les bagues d'amortissement ou amortisseurs. Les bagues d'amortissement sont utilisées à l'intérieur des vérins hydrauliques et permettent le «freinage» du vérin, évitant ainsi les arrêts et les brusques à-coups imprimés à la machine. Pour la production de ces bagues particulières, Sibò utilise un acier de cémentation qui prévient les ruptures subites (en cas d'impact) et qui garantit des usinages de «précision» grâce à des machines hautement spécialisées et innovantes. Aucun véritable standard n'existe pour cette bague, le marché étant très fragmenté et caractérisé par des besoins d'usinages spécifiques différents. Sibò est en mesure de répondre à toute demande et en mesure d'effectuer des usinages de fraisage inclinés (plats et en rayons), de fraisage frontal (carrés et en rayon), de rectification des plans, de filetage, etc.

Dämpferbuchse

Dank seinem Know-how und solider Erfahrung in der Stahlbuchsenproduktion gelang Sibò die Einführung eines neuen Produktsortiments: Dämpferbuchse. Die finden in öldynamischen Zylindern Anwendung und gewährleisten die "Zylinderbremsung", womit bruske Stopps und Rucks der Maschine verhindert werden. Sibò verwendet zur Produktion dieser speziellen Buchsen Zementstahl, der plötzliche Brüche (durch Risse) verhindert und dank der hoch spezialisierten und innovativen Maschinen des Unternehmens "Präzisionsfertigungen" gewährleistet. Für diese Buchsen gibt es keinen konkreten Standard, da der Markt extrem fragmentiert ist und unterschiedlichen spezifischen Fertigungsanfragen nachkommen muss. Sibò ist in der Lage, jegliche Anfrage zu erfüllen: Fräsen auf Gehrung (Planfräsen, Radialfräsen), Stirnflächenfräsen (Vierkantfräsen, Radialfräsen) Fräsen von Planschleifen, Gewindefräsen, usw.

Boccole a Battuta

Sibo ha tra le sue linee di prodotto anche le boccole a battuta, particolari boccole con flangia (o collare) che sono utilizzate principalmente negli snodi dei retro escavatori. Sibò è in grado di produrre queste

boccole in ogni tipologia proposta per le boccole standard e ad esecuzione speciale. È possibile inoltre fare delle esecuzioni speciali su richiesta del cliente come ad esempio ragnature frontali).



Flange bushes

Sibo also offers flange bushes, which are special bushes with a flange (or collar) that are mainly used in the jointed parts of rear excavators. Sibò manufactures these bushes in all the types offered for standard bushes and in the special versions. Customised versions upon customer request are also available, such as front oil grooves.

Bagues épaulées

La gamme des produits Sibò inclut également les Bagues épaulées, bagues particulières, essentiellement utilisées sur les articulations de pelleteuses. Sibò est en mesure de produire ces bagues dans tous les types proposés pour les bagues standard et les bagues spéciales. Il est également possible de réaliser à la demande du client des usinages spéciaux tels que des éraillures frontales.

Bundbuchse

Eine der Produktlinien von Sibò sieht die Herstellung von Bundbuchse vor, wobei es sich um besondere Buchsen mit Flansch handelt, die vorrangig in Gelenken von Baggerladern Anwendung finden. Sibò ist in der Lage, diese Buchsen in jeder für Standardbuchsen angebotenen Typologie und in Form von Sonderausführungen herzustellen. Darüber hinaus können Anfertigungen nach Kundenanforderung erfolgen, wie z.B. Stirnrillen.

Jolly Bushings™

Le JB™ sono boccole nate dall'esigenza di trovare una soluzione al problema della riparazione delle sedi danneggiate di una qualsiasi macchina da lavoro (MMT, Agricoltura, Drilling, Mining etc) o parte di essa e/o attrezzature.

Nel particolare questa boccola presenta una superficie interna indurita a 58-62 HRC e rettificata, ed una superficie esterna (compresi i due relativi piani), morbida a 40-42 HRC che può essere rilavorata (tornita) fino alla misura del diametro necessaria. Lo spessore di questa speciale busola è più alto (>7.5 mm) di quello standard per potersi adattare meglio a qualsiasi tipologia di sede (che a causa dell'usura ha perso la sua misura iniziale). In questo modo anziché sostituire sede e boccola, sostituiamo quest'ultima con una JB™ tornita a misura nel diametro esterno permettendo così di riavere interferenza ottimale tra sede e boccola risparmiando tempo e costi. Per un risultato ottimale si consiglia di rilavorare prima la sede e poi di conseguenza la boccola JB™.

Si suggerisce il montaggio tramite pressa o azoto con lavorazione delle rispettive sedi con tolleranza H7 o massimo H8.

CARATTERISTICHE TECNICHE

- Materiale acciaio speciale E410 (EN10305) che garantisce l'uniformità del trattamento termico
- Trattamento della superficie interna di Cementazione-Tempra e Rinvenimento con profondità di cementazione 0.8-1 mm, durezza HRC 58-62 dopo rettifica
- Tolleranza standard u6 C8.
- Qualità garantita dalla rettifica di entrambe le superfici (quella interna per poter consentire il corretto gioco con il perno e ridurne l'attrito e avere performance ottimali, quella esterna per poterla utilizzare anche come boccola definitiva), dalla flessibilità nell'impiego.

GAMMA DIMENSIONALE

Le boccole JB™ possono essere prodotte da un diametro interno minimo 30 mm e massimo 100 mm. Altre misure possono essere prodotte a richiesta su disegno del cliente.

🇬🇧 Jolly Bushings™ Repair Bushing

The JB™ are bushings resulting from the need to find a solution to the problem of repairing damaged housing on any work machinery (Earth-moving, Agriculture, Drilling, Mining, etc.) or part of it and/or equipment. In particular, this bushing has an inner surface which has been hardened to 58-62 HRC and ground, plus a soft 40-42 HRC external surface (including the two faces), which can be machined (turned) to the required diameter. The thickness of this special bushing is greater (>7.5 mm) than a standard bushing so that it can be better adapted to the type of housing (which has lost its initial dimension due to wear). So, instead of replacing the housing and the bushing, we only replace the latter with a JB™ turned to the external diameter, so the best interference fit between the housing and bushing can be obtained, saving time and money. To the best result, we recommend machining the housing first and then, the JB™ bushing. We recommend assembling it using a press or nitrogen with machining of the respective housings with a tolerance of H7 or maximum H8.

Technical specifications:

- Material: E410 special steel (EN10305) which guarantees uniform heat treatment
- Inner surface treatment of case-hardening and tempering with case-hardening depth of 0.8-1 mm, HRC 5862 hardness after grinding
- Standard tolerance u6 C8.
- Quality guaranteed by the grinding of both surfaces (the inner one to allow the correct play with the shaft, to reduce friction and obtain excellent performance; the outer one to use as the permanent bushing as well) and by flexibility of use.

Size range

The JB™ bushings can be produced with a minimum inner diameter of 30 mm and a maximum of 100 mm. Other sizes can be produced on request based on the customer's design.

Type

JBE – Inner groove, holes, spiral, no exit
JBH – Inner groove
JBB – Inner groove and holes



Jolly Bushings™ Bague de réparation

Les JB™ sont des bagues nées de la nécessité de trouver une solution au problème de la réparation des sièges endommagés de toute machine de travail (MMT, Agriculture, Forage, Exploitation minière, etc.) ou une partie de celle-ci et / ou de son équipement.

En particulier, cette bague a une surface interne durcie à 58-62 HRC et rectifiée, ainsi qu'une surface externe (y compris les deux plans relatifs), souple à 40-42 HRC, qui peut être retravaillée (tournée) jusqu'au diamètre requis. L'épaisseur de cette douille spéciale est supérieure (> 7,5 mm) à la douille standard afin de mieux s'adapter à tout type de siège (qui, à cause de l'usure, a perdu sa taille initiale). De cette façon, au lieu de remplacer le siège et la bague, nous remplaçons cette dernière par une JB™ dont le diamètre extérieur est tourné à la bonne dimension, permettant ainsi une interférence optimale entre le siège et la bague, et ainsi d'économiser du temps et de l'argent. Pour un résultat optimal, il est conseillé de retravailler le siège en premier et ensuite la bague JB™.

Nous recommandons le montage à l'aide d'une presse ou d'azote avec traitement des sièges respectifs avec la tolérance H7 ou maximale H8.

Caractéristiques techniques :

- Matériau : acier spécial E410 (EN10305) garantissant un traitement thermique uniforme
- Traitement de surface interne de Cémentation et Revenu avec une profondeur de cémentation de 0,8-1 mm, dureté HRC 58-62 après meulage
- Tolérance standard u6 C8.
- Qualité garantie par la rectification des deux surfaces (la face interne pour permettre un jeu correct avec le pivot, réduire les frottements et obtenir une performance optimale, la face externe pour pouvoir l'utiliser aussi comme bague définitive) et par la flexibilité d'utilisation.

Gamme dimensionnelle

Les bagues JB™ peuvent être produites à partir d'un diamètre interne minimum de 30 mm et maximum de 100 mm. D'autres tailles peuvent être produites sur dessin du client.

Types

JBE – Gorge intérieure trous rainure non sortante

JBH – Gorge intérieure

JBB – Gorge intérieure et trous

Jolly Bushings™ Reparaturbuchse

Die JB™-Buchsen wurden aus der Notwendigkeit geboren, eine Lösung für das Problem der Reparatur beschädigter Sitze von Arbeitsmaschinen (Erdbewegung, Landwirtschaft, Bohren, Bergbau usw.) oder Teilen davon bzw. Geräten zu finden. Insbesondere weist diese Buchse eine auf 58-62 HRC gehärtete und geschliffene Innenfläche und eine weichere Außenfläche (einschließlich der beiden entsprechenden Ebenen), mit einer Härte von 40-42 HRC auf, die bis zum erforderlichen Durchmesser nachbearbeitet (gedreht) werden kann. Die Dicke dieser Spezialbuchse ist höher (>7,5 mm) als die Standarddicke, wodurch sie besser an jede Art von Sitz angepasst kann (dessen ursprüngliche Größe durch Verschleiß verändert wurde). Auf diese Weise ersetzen wir anstelle des Sitzes und der Buchse nur letztere durch eine auf Maß im Außendurchmesser gedrehte JB™-Buchse, wodurch ein optimales Zusammenspiel zwischen Sitz und Buchse wiederhergestellt werden kann, was Zeit und Kosten spart. Für beste Ergebnisse wird empfohlen, zuerst den Sitz und dann die JB™-Buchse entsprechend zu bearbeiten.

Wir empfehlen die Montage durch Pressen oder Stickstoff mit Bearbeitung der jeweiligen Sitze mit der Toleranz H7 oder maximal H8.

Technische Eigenschaften:

- Material: Spezialstahl E410 (EN10305), der die Gleichmäßigkeit der Wärmebehandlung garantiert
- Behandlung der Innenfläche zur Zementierung - Abschrecken und Anlassen mit einer Tiefe der Zementierung von 0,8-1 mm, Härte HRC 58-62 nach dem Schleifen
- Standardtoleranz u6 C8.
- Garantierte Qualität durch das Schleifen beider Flächen (die Innenfläche zur Herstellung des richtigen Spiels mit dem Bolzen und zur Reduktion der Reibung für optimale Leistung, die Außenfläche, um sie als endgültige Buchse verwenden zu können), durch Flexibilität im Gebrauch.

Abmessungsbereich

JB™-Buchsen können mit einem Innendurchmesser von mindestens 30 mm und höchstens 100 mm hergestellt werden. Andere Abmessungen können auf Anfrage nach Kundenzeichnung hergestellt werden.

Typen

JBE – Innennut gerillt mit nicht durchgängigen Bohrungen

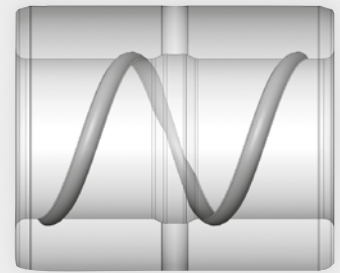
JBH – Innennut

JBB – Innennut und Bohrungen

Tipologie

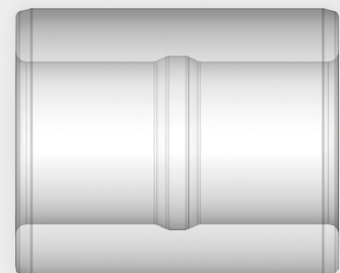
Types

JBE



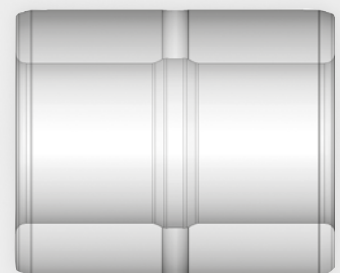
 GIFR SP. NU

JBH



 J GI

JBB



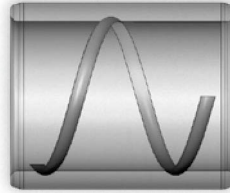
 J GIF

Boccole a esecuzione speciale

Special bushes

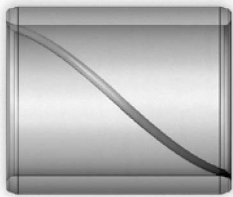
Liscia ragnata

Plain with spiroil



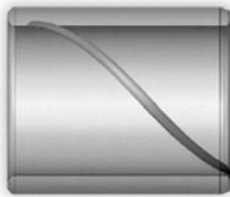
PER OGNI DIMENSIONE
FOR EACH SIZE

SS SP.NU



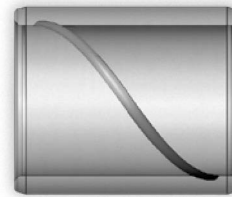
YY 1/0 U

INDICATO PER / SUGGESTED FOR $30 < C < 60$



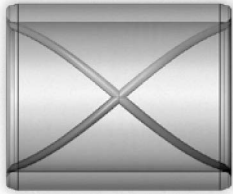
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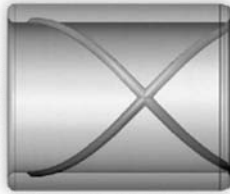
UU 1/0 NU

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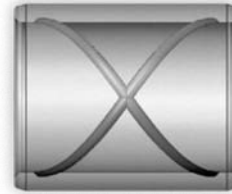
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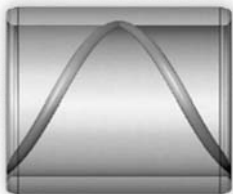
LL 2/0 U 1P

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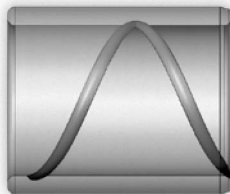
U 2/0 NU

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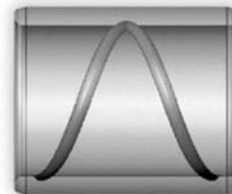
RE 1/8 U

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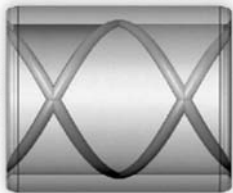
RF 1/8 U 1P

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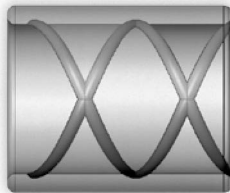
RB 1/8 NU

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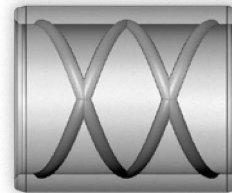
RR 2/8 U

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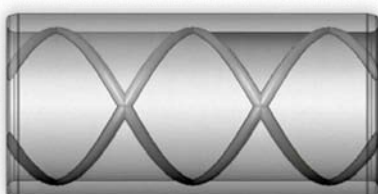
SR 2/8 U 1P

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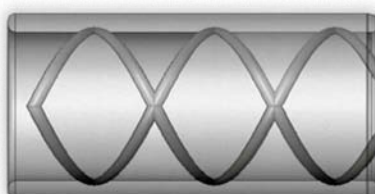
RS 2/8 NU

INDICATO PER / SUGGESTED FOR $C > 60$



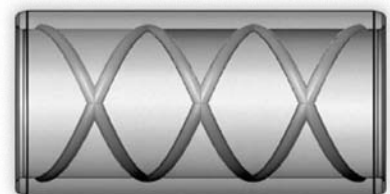
RC 3/8 U

INDICATO PER / SUGGESTED FOR $C > 100$



RG 3/8 U 1P

INDICATO PER / SUGGESTED FOR $C > 100$



RD 3/8 NU

INDICATO PER / SUGGESTED FOR $C > 100$

LEGENDA

OGNI COLONNA MOSTRA LE BOCCOLE
CONSIGLIATE PER IL RANGE DI
LUNGHEZZA INDICATA.

LEGEND

EACH COLUMN SHOWS THE
RECOMMENDED BUSH ACCORDING
TO THE INDICATED LENGTH.

ZZ

codice
(code)

SP.NU

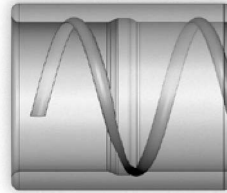
descrizione ragnatura
(spiral oil groove description)

C =

LUNGHEZZA
BOCCOLA
BUSH LENGTH

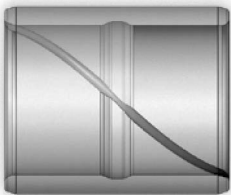
Gola interna ragnata

Plain with inside
ring and spiroil oil
grooves



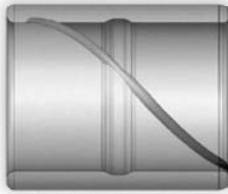
PER OGNI DIMENSIONE
FOR EACH SIZE

NA SP.U 1P



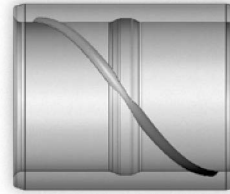
M 1/0 U

INDICATO PER / SUGGESTED FOR 30 < C < 60



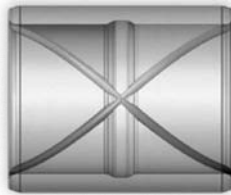
MB 1/0 U 1P

INDICATO PER / SUGGESTED FOR 30 < C < 60



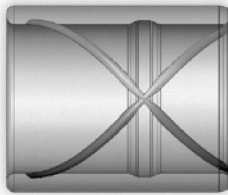
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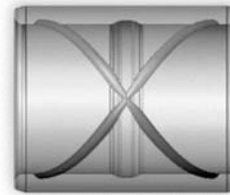
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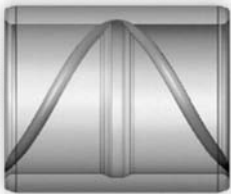
XX 2/0 U 1P

INDICATO PER / SUGGESTED FOR 30 < C < 60



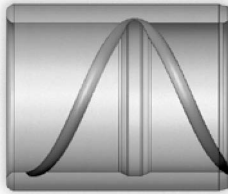
X 2/0 NU

INDICATO PER / SUGGESTED FOR 30 < C < 60



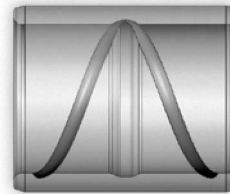
LM 1/8 U

INDICATO PER / SUGGESTED FOR 30 < C < 120



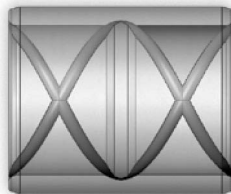
LA 1/8 U 1P

INDICATO PER / SUGGESTED FOR 30 < C < 120



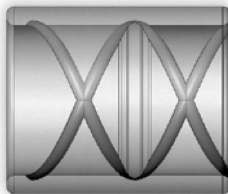
L 1/8 NU

INDICATO PER / SUGGESTED FOR 30 < C < 120



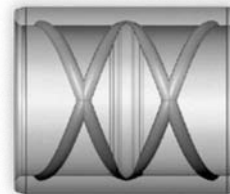
MR 2/8 U

INDICATO PER / SUGGESTED FOR C > 60



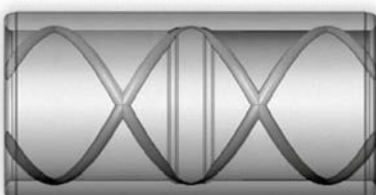
MC 2/8 U 1P

INDICATO PER / SUGGESTED FOR C > 60



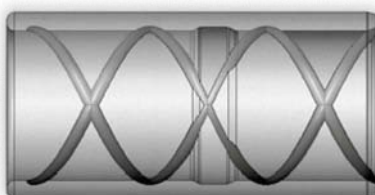
RM 2/8 NU

INDICATO PER / SUGGESTED FOR C > 60



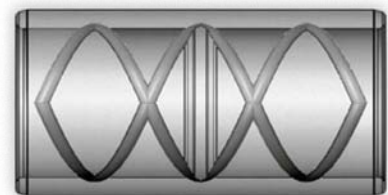
ME 3/8 U

INDICATO PER / SUGGESTED FOR C > 100



MF 3/8 U 1P

INDICATO PER / SUGGESTED FOR C > 100



MD 3/8 NU

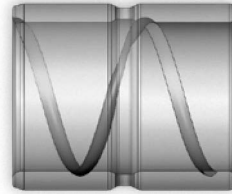
INDICATO PER / SUGGESTED FOR C > 100

Boccole a esecuzione speciale

Special bushes

Gole fori ragnata

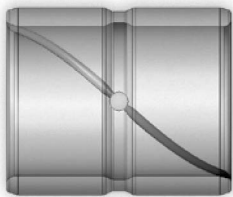
Inside and outside ring grooves holes, inside spiral oil groove



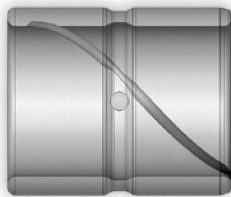
PER OGNI DIMENSIONE
FOR EACH SIZE

K SP.U 1P

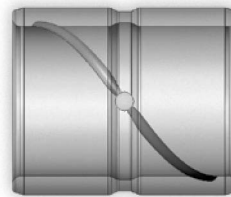
C = LUNGHEZZA BOCCOLA
BUSH LENGTH



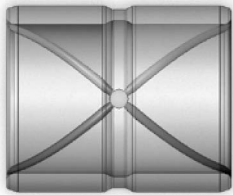
FC 1/0 U
INDICATO PER / SUGGESTED FOR $30 < C < 60$



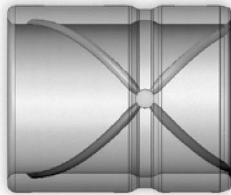
FD 1/0 U 1P
INDICATO PER / SUGGESTED FOR $30 < C < 60$



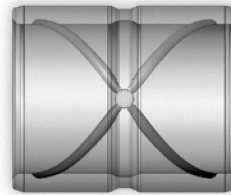
FB 1/0 NU
INDICATO PER / SUGGESTED FOR $30 < C < 60$



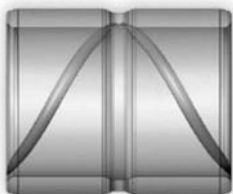
FF 2/0 U
INDICATO PER / SUGGESTED FOR $30 < C < 60$



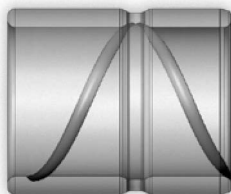
FA 2/0 U 1P
INDICATO PER / SUGGESTED FOR $30 < C < 60$



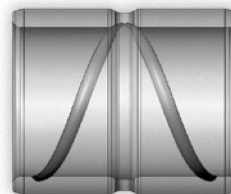
F 2/0 NU
INDICATO PER / SUGGESTED FOR $30 < C < 60$



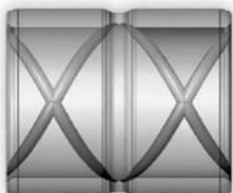
V 1/8 U
INDICATO PER / SUGGESTED FOR $30 < C < 120$



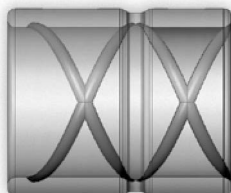
VA 1/8 U 1P
INDICATO PER / SUGGESTED FOR $30 < C < 120$



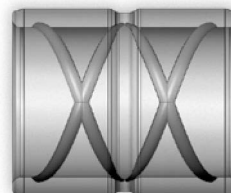
C 1/8 NU
INDICATO PER / SUGGESTED FOR $30 < C < 120$



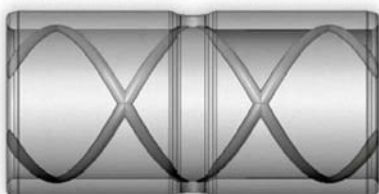
GG 2/8 U
INDICATO PER / SUGGESTED FOR $C > 60$



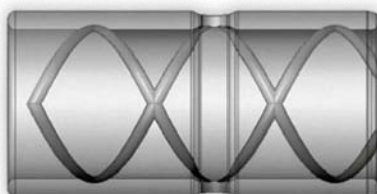
GA 2/8 U 1P
INDICATO PER / SUGGESTED FOR $C > 60$



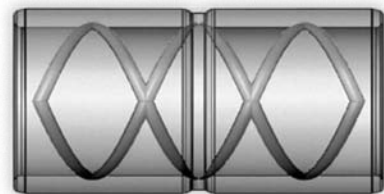
G 2/8 NU
INDICATO PER / SUGGESTED FOR $C > 60$



ZZ 3/8 U
INDICATO PER / SUGGESTED FOR $C > 100$



ZB 3/8 U 1P
INDICATO PER / SUGGESTED FOR $C > 100$



Z 3/8 NU
INDICATO PER / SUGGESTED FOR $C > 100$

LEGENDA

OGNI COLONNA MOSTRA LE BOCCOLE
CONSIGLIATE PER IL RANGE DI
LUNGHEZZA INDICATA.

LEGEND

EACH COLUMN SHOWS THE
RECOMMENDED BUSH ACCORDING
TO THE INDICATED LENGTH.

ZZ

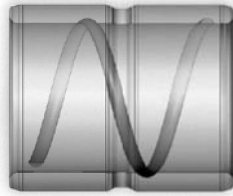
SP.NU

C =

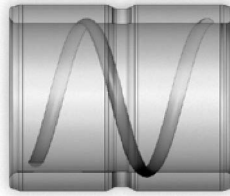
LUNGHEZZA
BOCCOLA
BUSH LENGTH

**Gola esterna
fori raganta**

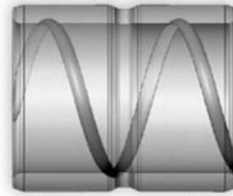
Outside groove
holes spiral oil
groove



J SP.U 1P



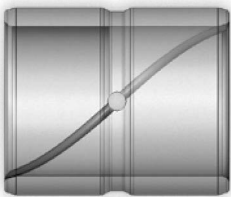
JJ SP.NU



W SP.U

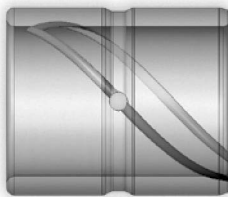
**PER OGNI
DIMENSIONE**
FOR EACH SIZE

C = LUNGHEZZA BOCCOLA
BUSH LENGTH



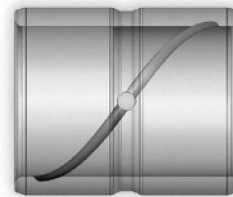
OC 1/0 U

INDICATO PER / SUGGESTED FOR $30 < C < 60$



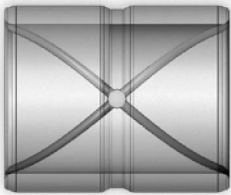
OD 1/0 U 1P

INDICATO PER / SUGGESTED FOR $30 < C < 60$



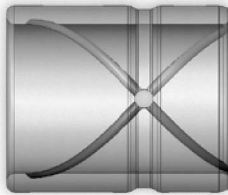
OO 1/0 NU

INDICATO PER / SUGGESTED FOR $30 < C < 60$



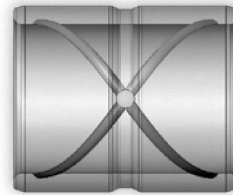
QQ 2/0 U

INDICATO PER / SUGGESTED FOR $30 < C < 60$



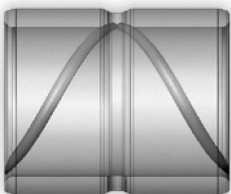
QA 2/0 U 1P

INDICATO PER / SUGGESTED FOR $30 < C < 60$



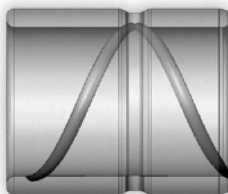
Q 2/0 NU

INDICATO PER / SUGGESTED FOR $30 < C < 60$



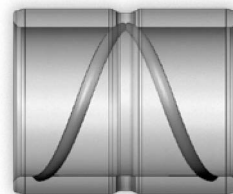
OA 1/8 U

INDICATO PER / SUGGESTED FOR $30 < C < 120$



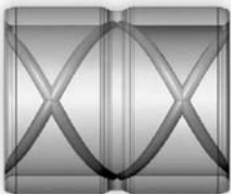
OB 1/8 U 1P

INDICATO PER / SUGGESTED FOR $30 < C < 120$



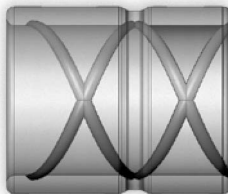
O 1/8 NU

INDICATO PER / SUGGESTED FOR $30 < C < 120$



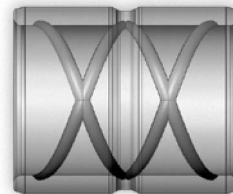
PA 2/8 U

INDICATO PER / SUGGESTED FOR $C > 60$



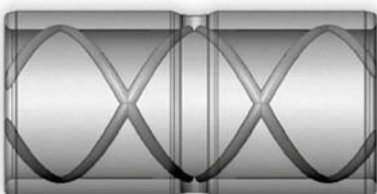
PB 2/8 U 1P

INDICATO PER / SUGGESTED FOR $C > 60$



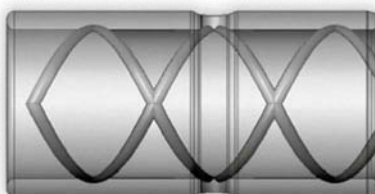
P 2/8 NU

INDICATO PER / SUGGESTED FOR $C > 60$



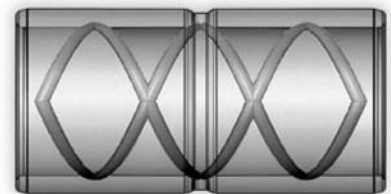
TB 3/8 U

INDICATO PER / SUGGESTED FOR $C > 100$



TC 3/8 U 1P

INDICATO PER / SUGGESTED FOR $C > 100$



TA 3/8 NU

INDICATO PER / SUGGESTED FOR $C > 100$

Impiego e montaggio

Per le loro caratteristiche, i prodotti Sibò si prestano ad essere impiegati come protezione al logoramento su tutti i sistemi di articolazione a bassa velocità di rotazione ed alta pressione specifica, dove supporti, alberi, perni e bulloni di giunzione sono di facile sostituzione. È consigliabile sottoporre i perni o alberi a tempra superficiale (il materiale C45 può essere sufficiente) e lavorarli con tolleranza h7. Per il corretto montaggio del-

le nostre boccole consigliamo la lavorazione delle rispettive sedi con tolleranza H7 (massima H8).

L'impiego delle boccole nelle peggiori condizioni di attrito richiede che il montaggio venga eseguito in modo tale da evitarne qualsiasi movimento, sia in senso assiale che in senso radiale. L'impiego standard delle boccole prevede il montaggio serrato al fine di evitarne ogni movimento.

MONTAGGIO TRAMITE RAFFREDDAMENTO

utilizzando azoto liquido, ecc.

Immergere la boccola in azoto; la temperatura provoca un restringimento della stessa, consentendone l'inserimento nella sede. Riscaldandosi andrà a bloccaggio sul diametro esterno. Per questo motivo è importante che smussi e raggi siano ben raccordati al fine di evitare danneggiamenti della sede e dei perni.

MONTAGGIO TRAMITE PRESSA

Si consiglia di posizionare la boccola sotto la pressa guidandola tramite un utensile come indicato in figura.

Use of products

Thanks to their characteristics, Sibò products are usually employed as a protection against wear on all coupling systems having a low rotation speed combined with a high specific pressure, where bearings, shafts, pins and coupling bolts can be easily replaced. It is advisable to treat pins or shafts with surface hardening (C45 can fit the purpose) and to machine them to tolerance h7. For a correct mounting of our bushes we recommend to machine their housing according to tolerance H7 (or max. H8). When the bushes have to work under heavy friction conditions, they should be fitted in such a way as to prevent them from any radial or axial movement.

STEEL BUSHES INSTALLATION

The use of standard bushings requires a tight fitting to avoid any movement. Steel bushes can be assembled in various ways, for example:

1) Press installation

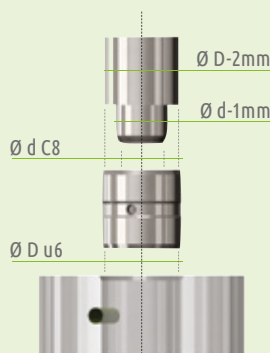
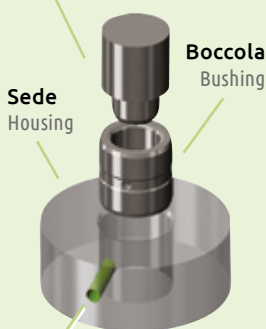
Put the steel bush under the press using a tool as shown in the picture.

2) Nitrogen installation

Dip the steel bush in nitrogen, the low temperature will shrink the steel bush to fit in its seat. Once reheated it will be locked on the outer diameter.

FASE 1 Step 1

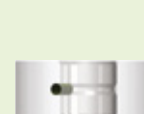
Utensile di montaggio
Fitting tool



FASE 2 Step 2



FASE 3 Step 3



TOLLERANZE CONSIGLIATE

Suggested tolerance

Perno / Pin

| Ø mm | Toll. H7 |
|----------------|----------|
| > 18 ≤ 30 | 0 -21 |
| > 30 ≤ 50 | 0 -25 |
| > 50 ≤ 80 | 0 -30 |
| > 80 ≤ 120 | 0 -35 |
| > 120 ≤ 180 | 0 -40 |
| > 180 ≤ 250 | 0 -46 |

Ø D H7 (MAX H8)

Utilisation des produits

Les produits Sibo, grâce à leurs caractéristiques, se prêtent à être utilisés comme protection contre l'usure sur tous les systèmes d'articulation avec une basse vitesse de rotation et une haute pression spécifique, dans lesquels paliers, arbres, pivots et boulons de jonction sont aisément remplaçables. Il est conseillé de soumettre les pivots ou les arbres à un traitement de trempe superficielle (C45 peut suffire à l'usage) et les usiner suivant la tolérance h7. Pour un bon montage de nos bagues, nous conseillons d'usiner leurs logements respectifs suivant la tolérance H7 (max. H8). En cas d'utilisation en présence d'un coefficient de frottement élevé, le montage de la bague doit être réalisé de façon à empêcher tout mouvement, tant en sens axial qu'en sens radial.

MONTAGE

L'utilisation de bagues standards nécessite un montage serré afin d'éviter tout mouvement. Le montage des bagues peut s'effectuer selon différentes modalités. Exemple:

- 1) Montage au moyen d'un presseur Il est conseillé de placer la bague sous le presseur, en la guidant avec un ustensile suivant l'illustration
- 2) Montage à l'azote: la bague trempée dans l'azote, à cause de la température, a une contraction qui permet son introduction dans le logement. En se refroidissant la bague se bloquera sur le diamètre extérieur.

Anwendung

Dank ihren Eigenschaften eignen sich die Produkte von Sibo besonders als Verschleißschutz in allen Gelenksystemen mit niedriger Drehgeschwindigkeit und hohen spezifischen Druckwerten, in denen Lagerungen, Wellen, Zapfen und Kupplungsbolzen sich leicht ersetzen lassen. Es ist ratsam, Bolzen und Wellen mit Oberflächenhärtung zu behandeln (C45 kann schon genügen) und sie nach Toleranz h7 zu bearbeiten. Zur korrekten Montage unserer Buchsen empfehlen wir die mechanische Bearbeitung der jeweiligen Aufnahmen nach Toleranz H7 (max. H8). Für die Montage der Buchsen unter schweren Reibungsbedingungen empfehlen wir eine Montage, durch die jegliche Bewegung der Buchse - sowohl axial als auch radial - verhindert wird.

BUCHSENMONTAGE

Die Verwendung von Standard Buchsen erfordert eine feste Montage, um jegliche Bewegung zu vermeiden. Buchsen kann man in mehreren Modalitäten montieren, zum Beispiel:

- 1) Montage durch eine Presse Man empfiehlt, die Buchse mit Hilfe eines Werkzeugs unter die Presse
- 2) Montage durch Stickstoff Die Buchse in Stickstoff eintauchen: die Temperatur verengt die Buchse. Wenn Sie wieder wärmer geworden ist, blockiert Sie sich über das Diameter.

Logistica

Sibo supporta i suoi clienti con un moderno magazzino automatico, con più di 100.000 prodotti finiti, per far fronte alle urgenze e alle esigenze di flessibilità proprie della Lean Manufacturing e del mercato degli ultimi anni.

La stessa flessibilità viene offerta nell'imballaggio delle boccole, studiando con il cliente la soluzione ottimale per l'approvvigionamento, lo stoccaggio e l'inserimento nelle linee di montaggio.

Logistics

Sibo supports its customers with a modern, fully automatic warehouse, with more than 100.000 pieces, to cope with the urgent requests and with the flexibility required by the Lean Manufacturing and by the global market.

We offer the same flexibility in the packaging, finding with our customers the most convenient way for a better goods flow in their supply chain and assembly lines.

Logistique

Sibo offre a ses clients un entrepôt moderne et automatisé, avec plus de 100.000 pièces, pour répondre aux urgences et à la flexibilité imposée par le marché globale. Nous offrons la même flexibilité sur l'emballage, en trouvant avec nos clients la meilleure solution pour leur chaîne logistique et la mise en ligne de production.

Logistik

Wir bieten unseren Kunden einen modernen automatischen Lager mit über 100.000 Stücke an, um dringende Anfragen bewältigen zu können und mehr Flexibilität zu begünstigen. Dieselbe Flexibilität bietet Sibo bei der Verpackung an, um zusammen mit den Kunden die beste Lösung für die Lieferkette und die Stellung im Fließband zu finden.

Sede / Housing

| Ø mm | Toll. H7 | Toll. H8 |
|----------------|-----------|------------|
| > 18 ≤ 30 | +21 +0 | +33 +0 |
| > 30 ≤ 50 | +25 +0 | +39 +0 |
| > 50 ≤ 80 | +30 +0 | +46 +0 |
| > 80 ≤ 120 | +35 +0 | +54 +0 |
| > 120 ≤ 180 | +40 +0 | +63 +0 |
| > 180 ≤ 250 | +46 +0 | > 72 +0 |



Eco-compatibili

Scegliere una boccola Sibò è garanzia di affidabilità, un valore aggiunto generato da:

- **Esperienza e serietà:** un'azienda a conduzione familiare che opera nel settore da oltre 40 anni
- **Made in Italy:** le nostre boccole sono realizzate sempre con materia di prima scelta che non muta le sue caratteristiche ad ogni lotto. Acquistare una boccola Sibò vuol dire salvaguardare l'ambiente che ci circonda e avere rispetto degli individui. Le boccole Sibò vengono infatti prodotte nel massimo rispetto delle normative ambientali relative alle normali attività aziendali e al ciclo produttivo, nonché nel rispetto della Nuova regolamentazione sui Prodotti Chimici (REACH) dell'Unione Europea (EU).

Una boccola Sibò è:



ecologica

perché prodotta nel rispetto dell'ambiente;

ecological

because it is manufactured in the respect of the environment;



riciclabile

perché non inquina e può essere riutilizzata per produrre nuovo acciaio;

recyclable

because it does not pollute and can be used again to make new steel;



atossica

perché non contiene sostanze nocive o tossiche per l'individuo e per l'ambiente;

non-toxic

because it does not contain substances that are harmful or toxic for people and the environment;



🇬🇧 Environment friendly

Purchasing a Sibò bush is a guarantee of reliability, an added value generated by:

- all the integrity of a family enterprise in the market for over 40 years;
 - sale of made-in-Italy bushes made only with top-quality materials without any difference in characteristics from one batch to another
- Purchasing a Sibò bush means safeguarding the environment that surrounds us and respecting human beings. Sibò bushes are in fact manufactured in compliance with international environmental standards as well as in accordance with the European Union's (EU) New regulations on Chemical Products (REACH). A Sibò bush is:
- ecological: because it is manufactured in the respect of the environment;
 - recyclable: because it does not pollute and can be used again to make new steel;
 - non-toxic: because it does not contain substances that are harmful or toxic for people and the environment.

🇫🇷 Ecocompatible

Choisir une bague Sibò, c'est garantie de fiabilité, une valeur ajoutée générée par:

- sérieux de l'entreprise familiale, dans le secteur depuis plus de 40 ans;
 - vente de bagues made in Italy toujours réalisées avec des matériaux de premier choix, dont les caractéristiques ne varient pas à chaque lot
- Acheter une bague Sibò c'est respecter notre environnement et les individus. Les bagues Sibò sont produites dans le respect absolu des normes environnementales appliquées aux activités normales de l'entreprise et au cycle de production, et conformément à la nouvelle réglementation sur les produits chimiques (REACH) de l'Union européenne (EU). Les bagues Sibò sont:
- écologiques, car produites dans le respect de l'environnement;
 - recyclables, car non polluantes et réutilisables pour produire un nouvel acier;
 - atoxiques, car exemptes de substances nocives ou toxiques pour l'individu et l'environnement.

🇩🇪 Umweltfreundlich

Der Kauf einer Sibò Buchse steht für Zuverlässigkeit, ein Mehrwert erzeugt durch:

- Vertrauenswürdigkeit des seit mehr als 40 Jahren im Sektor tätigen Familienunternehmens;
 - Verkauf von Buchsen Made in Italy, immer aus ausgesuchten Rohstoffen hergestellt, die ihre Eigenschaften von Serie zu Serie gleichbleibend aufrechterhalten
- Der Kauf einer Sibò Buchse steht für Umweltschutz und Respekt des Individuums. Die Sibò Buchsen werden in der Tat bei strengster Einhaltung der Umweltvorschriften in Bezug auf die normalen Betriebsaktivitäten und den Produktionszyklus produziert sowie unter Beachtung der neuen Regelung zu Chemischen Produkten (REACH) der Europäischen Union (EU). Eine Sibò Buchse ist:
- ökologisch: umweltfreundliche Herstellung;
 - wiederverwertbar: keine Umweltbelastung durch der Wiederverwertung für die Herstellung von neuem Stahl;
 - ungiftig: keine schädlichen oder giftigen Substanzen für das Individuum und für die Umwelt enthalten sind.

Ricerca e sviluppo



Il nostro obiettivo primario è la soddisfazione continua del cliente: siamo fornitori, ma soprattutto partner in grado di ascoltare, elaborare e offrire soluzioni concrete con un prodotto che faccia la differenza. L'Area Ricerca e Sviluppo testa i nostri prodotti e fornisce informazioni utili su vita e utilizzo delle boccole, ma consente anche ai nostri clienti di ricercare e trovare insieme al nostro team di ingegneri e tecnici specializzati nuove soluzioni che rendano qualitativamente migliori e più competitivi i loro prodotti finali. L'area R&D vanta una collaborazione continua da oltre 10 anni con l'**Università di Bologna**, Facoltà di Ingegneria Meccanica e Chimica Metallurgica.

Research and development

Our primary goal is the continuous customer satisfaction: we are a supplier and a partner who can listen, process and offer real solutions, suggesting a product that makes the difference. The R&D Department tests our products and informs us about their function and life, it also allows our customers to find, with our skilled engineers and technicians, the best quality solution to develop a more competitive final product. The R & D Department is supported by the continuous collaboration over the years with the University of Bologna, Mechanical Engineering and Chemistry Metallurgy Faculties.

Recherche et développement

La satisfaction du client continue est notre objectif principal: nous sommes un fournisseur et un partenaire capable d'écouter, d'élaborer et d'apporter une solution avec un produit qui fait la différence. Le Service de Recherche et Développement examine nos produits et nous donne les informations sur leur vie et sur leur fonction, il permet aussi à nos clients de rechercher et identifier avec nos ingénieurs et techniciens la meilleure bague, pour un produit meilleur et plus compétitif. Le service R & D est soutenu par la collaboration depuis plus de 10 ans avec l'Université de Bologne, Facultés de Génie Mécanique et de Chimie et Métallurgie.

Forschung und entwicklung

Seit jeher ist die Kundenzufriedenheit unser oberstes Ziel: wir sind ein Lieferant und ein Partner, der hören, verarbeiten und eine Lösung anbieten kann; zwar mit einem Produkt, das der Unterschied macht. Die Abteilung Forschung und Entwicklung prüft unsere Produkte und informiert uns über ihr Leben und über ihre Funktion, sie läßt auch unsere Kunden neue Lösungen finden, und zwar mit unseren Ingenieuren und Technikern zusammen, die dem Endprodukt die optimale Qualität und Wettbewerbsfähigkeit geben. Unsere F&E Abteilung arbeitet seit über 10 Jahren mit der Universität von Bologna - Maschinenbau und Chemie-Metallurgie Fakultäten - zusammen.

Servizio

Il nostro servizio è garantito da:

- Massima collaborazione, flessibilità e trasparenza
- Ampia disponibilità di pezzi a magazzino e scorta di materia prima
- Personale competente e qualificato
- Ricerca e Sviluppo: con un laboratorio metallografico interno e quattro banchi prova per testare i propri prodotti, Sibo e il suo personale qualificato supportano i clienti che cercano la migliore tecnologia di boccola a un giusto rapporto qualità-prezzo.

Our service

Our service is assured by:

- Utmost cooperation, flexibility and transparency
- Wide availability of items and raw materials in stock
- Qualified and highly skilled technicians and staff
- Research and Development: with our in-house metallographic laboratory, 4 test benches, Sibo staff can support those customers who need the best type of bush and the best value for money.

Notre service

Nos garanties de service:

- Collaboration, flexibilité et transparence maximales
- Grande disponibilité de pièces en magasin et stock de matières premières
- Personnel compétent et qualifié
- Recherche et Développement: notre laboratoire métallographique et 4 bancs d'essai permettent à notre techniciens de supporter les clients qui cherchent le meilleur type de bague à un juste rapport qualité/prix.

Unser dienst

Unser Service wird garantiert durch:

- Maximale Zusammenarbeit, Flexibilität und Transparenz
- Umfassende Verfügbarkeit von Teilen auf Lager und Rohstoffreserven
- Qualifiziertes und gelerntes Personal
- Forschung und Entwicklung: mit unserem metallographischen Labor und unseren 4 Prüfständen können unsere Techniker die Kunde helfen, um die beste Buchsenart mit den besten Preis-/Leistungsverhältnis zu finden.



Campi di applicazione

Le boccole in acciaio Sibò possono essere impiegate in diversi campi/settori:

- Macchine movimento terra (escavatori, loader, ecc...)
- Macchine da perforazione
- Macchine agricole (erpici, aratri, retroescavatori, ecc..)

- Attrezzature (polipi, benne, pinze, ecc...)
- Cilindri oleodinamici (protezione dall'usura di fondelli e occhielli).

Esistono poi altri campi di utilizzo:

- Parti di usura in lavatrici industriali
- Guide di scorrimento per presse industriali

- Componenti per pompe di aspirazione (piste per Corteco e/o anelli di tenuta)
- Componenti per macchine utensili e/o automatiche
- Pompe e macchine per presse.



🇬🇧 Fields of application

Sibo steel bushes can be used in various fields/ sectors:

- Earth movement machinery (excavators, loaders, etc...)
- Drilling machinery
- Farming machinery (power harrows, ploughs, rear excavators, etc..)
- Equipment (grabs, buckets, grippers etc)
- Hydraulic cylinders (protection against wear of bottoms and eyelets)

SIBO also covers other fields of use such as:

- Consumables in industrial washing machines.
- Sliding guides for industrial presses.
- Components for suction pumps (sliding seats for Corteco and/or sealing rings).
- Components for machine tools and/or automatic machines
- Pumps and industrial presses.

🇫🇷 Champs d'application

Les douilles en acier Sibò peuvent être utilisées dans différents domaines/secteurs:

- Machines de chantier (pelleeteuses, chargeurs, etc.)
- Machines de perforation
- Machines agricoles (herse, charrues, rétro-excavatrices, etc.)
- Équipements divers (grappins, benne, pinces, etc.)
- Vérins hydrauliques (protection contre l'usure des culots et des œillets)

Les produits SIBO sont également utilisés dans d'autres secteurs:

- pièces sujettes à usure sur machines de lavage industrielles;
- guides de coulissement pour presses industrielles;
- composants pour pompes d'aspiration (pistes pour Corteco et/ou anneaux d'étanchéité);
- composants pour machines-outils et/ou automatiques
- pompes et presseur industriels.

🇩🇪 Anwendungsbereiche

Die Stahlbuchsen von Sibò finden in verschiedenen Bereichen/Sektoren Anwendung:

- Erdbewegungsmaschinen (Bagger, Lader, usw...)
- Perforationsmaschinen
- Landwirtschaftsmaschinen (Eggen, Pflüge, Baggerlader, usw...)
- Anbaugeräte (Polypgreifer, Greifer, Zangen, usw...)
- Öldynamische Zylinder (Verschleißschutz für Bodenscheiben und Ösen).

Für SIBO gibt es aber weitere Anwendungsbereiche, wie:

- Verschleißteile von Industriewaschmaschinen;
- Gleitschienen für Industriepressen;
- Komponenten für Saugpumpen (Gleitsitze für Corteco und/ oder Dichtringe);
- Komponenten für Werkzeugmaschinen und/ oder Automatikmaschinen.
- Pumpen und Industrielle presse.



I dettagli fanno
la perfezione,
la perfezione
non è un dettaglio.

*Details make perfection
and perfection is not a detail.*

Leonardo da Vinci



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MADE IN ITALY

