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I N D U S T R I E S

BEARINGS INSTALLATION AND SYNOPSIS ***INSTALLAZIONE CUSCINETTI E SINOSI***



01.09.2019
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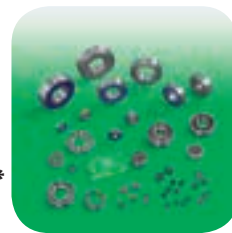


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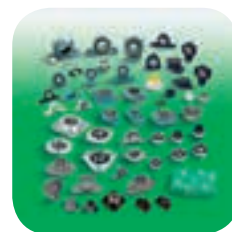
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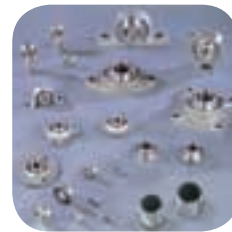
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**Bearings and Self-aligning
 bearing units ***
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* For further information, please ask for technical catalogue, also available on line: www.isb-industries.com

* Per ulteriori informazioni, potete richiedere il catalogo tecnico, disponibile anche on line: www.isb-industries.com



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BEARINGS INSTALLATION ***INSTALLAZIONE DEI CUSCINETTI***



The correct installation of the bearing is an activity that does not start with the assembly phase of the component, but it is a complex procedure that consists of a series of phases whose improper, total or partial realization can cause problems with a consequent reduction of the calculated expected life of the bearing, that may be very relevant.

The macro-phases of the process can be summarized as follows:

1. Storage
2. Definition of the assembly strategy
3. Picking the right bearing
4. Cleaning and property of the assembly area
5. Assembly of the bearing.

1. STORAGE

The first macrophase of the bearing installation operation is represented by the correct storage of the bearing.

Generally, in the absence of specific recommendations, we recall the storage conditions defined by the primary brand producers, that can be summarized as follows:

1. Leave the bearings in their original packaging until its installation
2. Bigger bearings must be stored in a horizontal position
3. Warehouse temperatures must be included from + 6 ° C to + 25 ° C
4. The temperature variation between day and night inside the warehouse must be contained within 8 ° C
5. The humidity of the warehouse must be less than 65%.

It should be noted that the bearings are components characterized by:

- dimensional tolerances (dimensional variations of diameters and thicknesses)
- shape tolerances (circularity, flatness, etc ...)
- surface finishing (roughness)
- functional performances (vibrational limitations).

defined by reference standards, and that may be altered by incorrect storage conditions such as shocks, scratches, deformations or surface changes due to rust or condensation.

La corretta installazione del cuscinetto è un'attività che non inizia con la fase di montaggio del componente, ma è una procedura che consta di una serie di fasi la cui realizzazione impropria, totale o parziale, può comportare problematiche di varia gravità con una conseguente riduzione della vita utile attesa dal cuscinetto, anche molto sensibile.

Le macrofasi del processo possono essere così riassunte:

1. Immagazzinamento
2. Definizione della strategia di montaggio
3. Prelievo del cuscinetto esatto
4. Pulizia del luogo di montaggio
5. Montaggio del cuscinetto.

1. IMMAGAZZINAMENTO

La prima macrofase dell'operazione di installazione del cuscinetto è rappresentata dal corretto immagazzinamento del cuscinetto stesso. Genericamente, in assenza di specifiche raccomandazioni, si assumono quali corrette le condizioni di immagazzinamento definite dai produttori di marca primaria, le quali possono essere così riassunte:

1. Lasciare i cuscinetti nel loro imballaggio originale fino all'installazione
2. I grandi cuscinetti devono essere immagazzinati in posizione orizzontale
3. Le temperature del magazzino devono essere comprese tra +6°C e +25°C
4. La differenza di temperatura tra giorno e notte all'interno del magazzino deve essere contenuta entro gli 8°C
5. L'umidità del magazzino deve essere minore del 65%.

Si segnala infatti che i cuscinetti sono componenti caratterizzati da:

- tolleranze dimensionali (variazioni dimensionali di diametri e spessori)
- tolleranze di forma (circolarità, planarità, ecc...)
- finiture (rugosità)
- prestazioni funzionali (limitazioni vibrazionali).

definite da normative di riferimento, che possono essere alterate da condizioni di immagazzinamento non corrette che possono produrre urti, rigature, deformazioni o alterazioni superficiali per ruggine o condensa.

Tolleranze per i cuscinetti radiali della classe di precisione normale (esclusi i cuscinetti a rulli conici)
Tolerances for radial bearings normal precision (tapered roller bearings excluded)

Anello interno - Inner ring		$\mu\text{m} : 0.001 \text{ mm}$									
d	Δd_{mp}	Serie diametrali - Diameters series						V_{dmp}	ΔB_s	V_{Bs}	K_{ia}
		oltre - over	fino a - up to	max	min	8,9 max	0,1 max				
mm	mm	μm	μm	μm	μm	μm	μm	μm	μm	μm	μm
2,5	10	0	-8	10	8	6	6	0	-120	15	10
10	18	0	-8	10	8	6	6	0	-120	20	10
18	30	0	-10	13	10	8	8	0	-120	20	13
30	50	0	-12	15	12	9	9	0	-120	20	15
50	80	0	-15	19	19	11	11	0	-150	25	20
80	120	0	-20	25	25	15	15	0	-200	25	25

		TABELLA LIMITI DI RUGOSITÀ SUPERFICIALE (Ra) [μm] SURFACE ROUGHNESS LIMITS TABLE (Ra) [μm]				Redatto da / Drawn up by Leo Iori Data / Date 01/12/2011	
TIPOLOGIA CUSCINETTO BEARINGS TYPOLOGY	SUPERFICIE SURFACE	DIAMETRO (da mm a mm) DIAMETER (from mm to mm)	CLASSE DI PRECISIONE / PRECISION CLASS (*)				
			P0	P6 (6.6)	P5	P4	P2
Cuscinetti a sfere Radial ball bearings	Pista Groove	dal/ from 10 a/ to 30	0,10	0,08	0,063	0,04	0,032
		dal/ from 30 a/ to 80	0,125	0,10	0,063	0,05	0,04
		dal/ from 80 a/ to 120	0,16	0,125	0,08	0,063	0,05
		dal/ from 120 a/ to 180	0,20	0,16	0,10	0,063	0,05
		dal/ from 180 a/ to 250	0,25	0,20	0,125	0,08	0,063
		dal/ from 250 a/ to 315	0,25	0,20	0,125	0,08	0,063
		dal/ from 315 a/ to 500	0,32	0,25	0,16	0,10	
Cuscinetti assiali a sfere Thrust ball bearings	Pista Groove	dal/ from 10 a/ to 30	0,125	0,10	0,08	0,05	
		dal/ from 30 a/ to 80	0,16	0,125	0,10	0,063	
		dal/ from 80 a/ to 120	0,20	0,16	0,125	0,08	
		dal/ from 120 a/ to 180	0,20	0,16	0,125	0,08	
		dal/ from 180 a/ to 250	0,25	0,20	0,16	0,10	
		dal/ from 250 a/ to 315	0,25	0,20	0,16	0,10	
		dal/ from 315 a/ to 500	0,32	0,25	0,20	0,125	

		Specifiche Vibrazioni (velocità) Vibration specification (speed) Cuscinetti Radiali Rigidi a Sfera (JB/T 10187-2000) Radial ball bearings (JB/T 10187-2000)									Redatto da / Drawn up by					
											Leo Iori					
											Data / Date					
											23/05/2013					
L = low frequency (50 ÷ 300 Hz) - M = medium frequency (300 ÷ 1800 Hz) - H = high frequency (1800 ÷ 10000 Hz)																
Ø Diametro Ø Diameter	V			V1			V2			V3			V4			
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	
	3	80	44	44	60	35	32	48	26	22	31	16	15	28	10	10
	4	80	44	44	60	35	32	48	26	22	31	16	15	28	10	10
	5	110	72	60	74	48	40	58	36	30	35	21	18	32	11	11
	6	110	72	60	74	48	40	58	36	30	35	21	18	32	11	11
	7	130	96	80	92	66	54	72	48	40	44	28	24	38	12	12
	8	130	96	80	92	66	54	72	48	40	44	28	24	38	12	12
	9	130	96	80	92	66	54	72	48	40	44	28	24	38	12	12
	10	160	120	100	120	80	70	90	60	50	55	35	30	45	14	15
	12	160	120	100	120	80	70	90	60	50	55	35	30	45	14	15
	15	210	150	120	150	100	85	110	78	60	65	46	35	52	18	18

Keeping products in the original packaging also allows:

- to avoid, or at least to limit, damages due to internal handling, accidental collisions, falls, or problems due to deterioration (formation of oxides or rust)
- to clearly identify the content of stock parts
- to avoid codes mixing.

Il mantenimento dei prodotti nell'imballo originale permette inoltre di:

- evitare, o quantomeno limitare, danneggiamenti dovuti a movimentazioni interne, urti accidentali, cadute, o problemi imputabili a deterioramenti (formazione di ossidi o ruggine)
- identificare in modo certo il contenuto dei prodotti a magazzino
- evitare mescolamenti di codici.



Failures related to the bearings location out of the original packaging and in a horizontal position:

Problematiche connesse alla mancata conservazione dei cuscinetti nel loro imballaggio originale ed in posizione orizzontale:



Fig. 1

Part: cage of an angular contact ball bearing

Symptom: pressed-steel cage deformation

Cause: shock load due to poor handling

Fig. 1

Componente: gabbia di un cuscinetto a sfere a contatto angolare

Evidenze: deformazione della gabbia stampata

Causa: urti da movimentazione interna



Fig. 2

Part: outer ring of Photo 7-1-4

Symptom: flaking of raceway surface at ball pitch

Cause: dents due to shock load while stationary

Fig. 2

Componente: anello esterno

Evidenze: flaking della pista a passo sfera

Causa: indentature causate da carico improvviso in condizioni stazionarie



Fig. 3

Part: inner ring of an angular contact ball bearing

Symptom: flaking of raceway at ball pitch

Cause: dents due to shock load while stationary

Fig. 3

Componente: anello interno di un cuscinetto a sfere contatto angolare

Evidenze: flaking della pista a passo sfera

Causa: indentature causate da carico improvviso in condizioni stazionarie



Fig. 4

Part: balls of Photo 7-1-4

Symptom: flaking of ball surface

Cause: dents due to shock load while stationary

Fig. 4

Componente: sfere

Evidenze: flaking della superficie delle sfere

Causa: indentature causate da carico improvviso in condizioni stazionarie



Fig. 5

Plastic deformation, indentations on raceways spaced at rolling element pitch

Cause of failure:

excessive loads during transportation, mounting or operation when the static load-carrying capacity is exceeded while the bearing is stationary, causing plastic deformation of the raceway with indentations spaced at the rolling element pitch.

Countermeasure:

use protection devices during transportation. Use suitable mounting procedures. Ensure proper handling of all machinery that incorporates rolling bearings.

Fig. 5

Deformazione plastica, ammaccature delle piste a passo elementi volventi

Causa del danneggiamento:

carico eccessivo durante il trasporto, il montaggio o la movimentazione, con carico statico che eccede la capacità di carico, causando la deformazione plastica delle piste con ammaccature a passo elemento volvente.

Contromisure:

usare dispositivi di protezione durante il trasporto. Assicurare una movimentazione ottimale di tutti i macchinari che contengono cuscinetti.

Failures related to wrong environmental conditions -
temperature and humidity - of the warehouse:

*Problematiche connesse al mancato Controllo delle condizioni
ambientali – temperature ed umidità - del magazzino:*

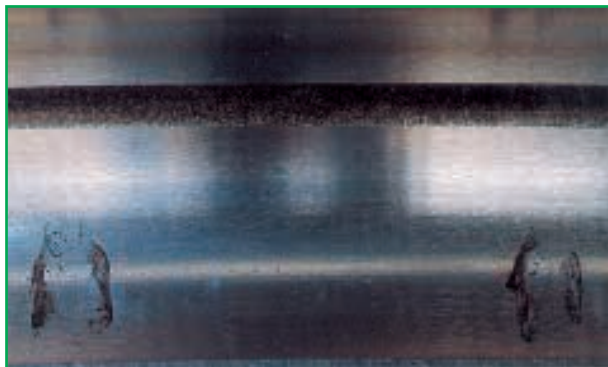


Fig. 6

Part: outer ring of a slewing ring

Symptom: rust on raceway surface at ball pitch

Cause: moisture condensation during stationary periods

Fig. 6

Componente: anello esterno di un cuscinetto di base

Evidenze: ruggine sulla pista a passo sfera

Causa: formazione di condensa nei periodi di stazionamento



Fig. 7

Part: rollers of a spherical roller bearing

Symptom: pit-shaped rust on rolling contact surface.
Corroded portions

Cause: moisture condensation during storage

Fig. 7

Componente: rulli di un cuscinetto a rulli sferici

Evidenze: ruggine puntiforme sulla superficie di contatto.
Porzioni corrose

Causa: formazione di condensa nei periodi di stazionamento



Fig. 8

Corrosion, unused bearing

Cause of failure:

rust on new, unused bearing, caused by improper storage and handling or by insufficient preservation.

Countermeasure:

store bearings in dry places with constant temperature and low humidity. Only remove the bearing from its package just before installation.

Fig. 8

Corrosione, cuscinetti inutilizzati

Causa del danneggiamento:

ruggine su cuscinetti nuovi, non usati, causati da inadeguate condizioni di stoccaggio o movimentazione o da protezione insufficiente.

Contromisure:

stoccare i cuscinetti in luoghi asciutti con temperatura costante e bassa umidità. Togliere il cuscinetto dal packaging solo al momento del montaggio.

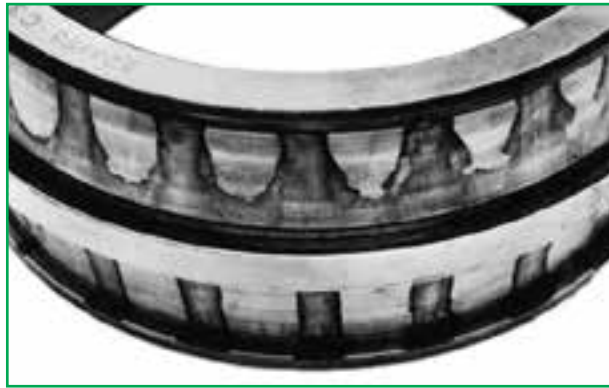


Fig. 9
Contact corrosion

Cause of failure:

corrosion marks on raceway at rolling element pitch due to presence of a corrosive liquid on stationary bearing during storage or service.

Countermeasure:

provide suitable preservation for storage. Check that the quality of the lubricant is adequate and the relubrication interval is correctly specified. Check seals.

Fig. 9
Corrosione da contatto

Causa del danneggiamento:

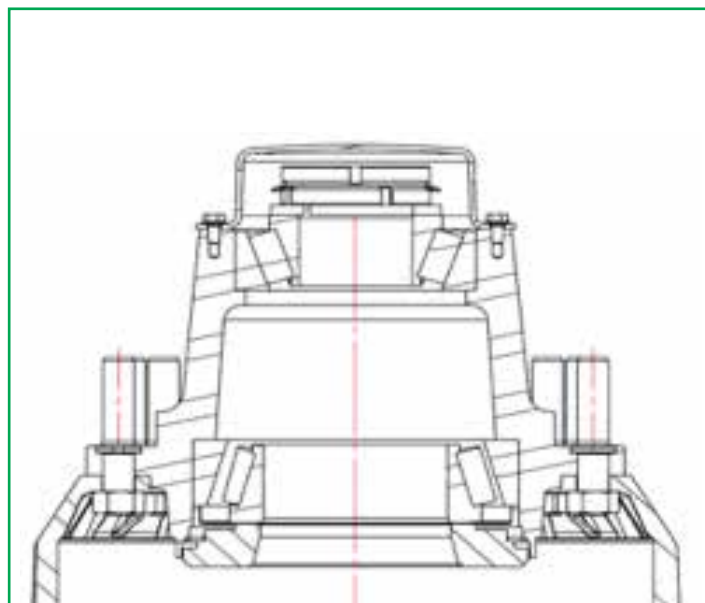
segni di corrosione sulla pista a passo componente volvente, dovuto alla presenza di liquido corrosivo in condizioni stazionarie durante lo stoccaggio o durante il servizio.

Contromisure:

garantire opportune precauzioni per lo stoccaggio. Verificare che la qualità del lubrificante sia ottimale e che gli intervalli di rilubrificazione siano corretti. Controllare le tenute.

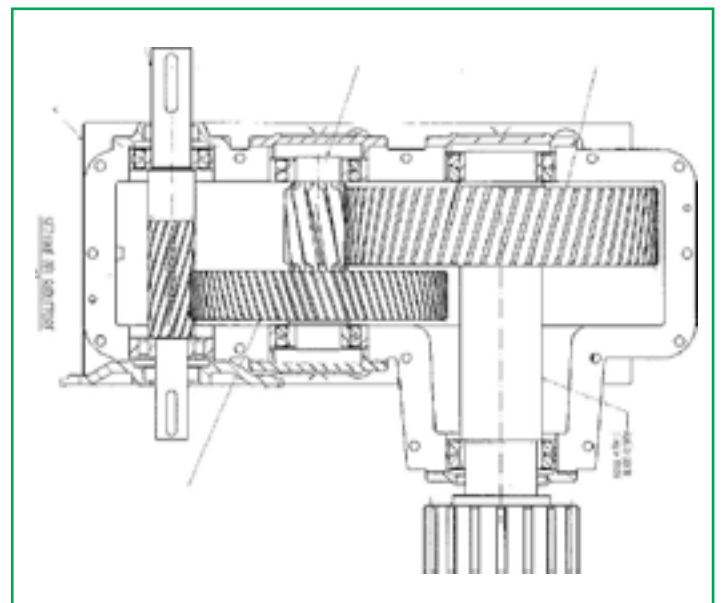
2. DEFINITION OF THE ASSEMBLY STRATEGY

Before starting the installation activities, and in absence of assembly instructions to establish which methodology must be used and which order of assembly to follow (eg prototype assembly), it is necessary to analyze the layout and evaluate not only the assembly method, but also the order to follow during the assembly of the bearings.



2. DEFINIZIONE DELLA STRATEGIA DI MONTAGGIO

Prima di iniziare le attività di installazione, ed in assenza di procedure o istruzioni di montaggio che stabiliscano quale metodologia utilizzare e quale ordine di montaggio seguire (es. montaggio prototipi), occorre analizzare il layout e valutare non solo il metodo di montaggio ma anche l'ordine con il quale si deve avanzare il montaggio dei cuscinetti.



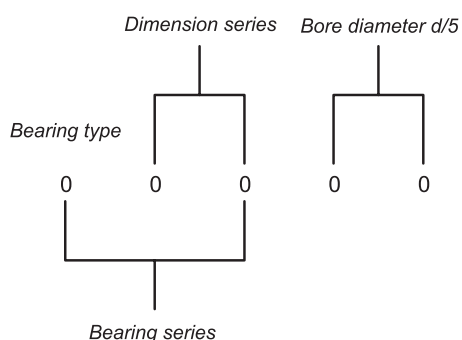
3. PICKING THE RIGHT BEARING

At the picking of the bearing, before opening the packaging, check the label outside the box to verify the correspondence between bearing to be mounted and picked bearing.

While checking the type of bearing, keep in mind that the verification of the correct product is not just limited to the main designation, but also to the suffixes that qualify all the characteristics and specifications:

The identification initials of the bearing comprise a series of letters and numbers, all of which have an exact meaning and they are split up into three distinguishing parts, starting from left to right:

- the first is the bearing type
- the second is the dimensional series
- the third is the diameter of the bore.



The first part of the initials characterizes the constructional shape. This part is always indicated numerically, with the exception of cylindrical roller bearings and those with balls with removable ring.

BEARING TYPE

0	Double row angular contact ball bearing
1	Self aligning ball bearing
2	Self aligning roller bearing and aligning roller thrust bearing
3	Tapered roller bearing
4	Double row deep groove ball bearing
5	Thrust ball bearing
6	Deep groove ball bearing
7	Angular contact ball bearing
8	Cylindrical roller thrust bearing
N	Cylindrical roller bearing
	If there are one or more letters followed "N" such as NJ, NU, NUP, the code will stand for rib types of bearings
QJ	Four point contact ball bearing

The second part of the initials represents the dimensional series: the other dimensions of the bearing are identified, namely the outside diameter and the width, in relation to the diameter of the bore. There may be different widths for the same bore and outside diameter.

A series of diameters and a series of widths are therefore distinguished.

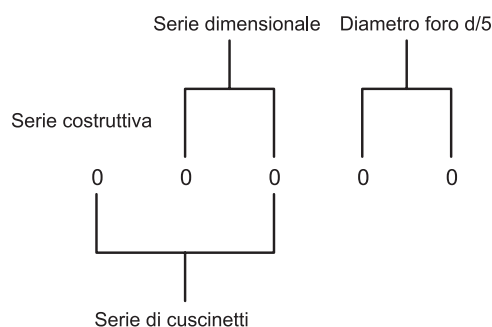
3. PRELIEVO DEL CUSCINETTO ESATTO

Al momento del prelievo, prima di aprire le confezioni, consultare l'etichetta apposta sulla scatola per verificare la rispondenza tra cuscinetto da montare e cuscinetto prelevato.

All'atto della verifica della tipologia del cuscinetto, tenere presente che la verifica del prodotto corretto non si limita al solo nomignolo, ma anche ai suffissi che ne qualificano tutte le caratteristiche e specificità:

La sigla di identificazione del cuscinetto è formata da una serie di lettere e da numeri, tutti con un preciso significato ed è divisa in tre parti che la distinguono, procedendo da sinistra a destra :

- la prima la serie costruttiva
- la seconda la serie dimensionale
- la terza il diametro del foro.



La prima parte della sigla caratterizza la forma costruttiva. Questa parte è, ad eccezione dei cuscinetti a rulli cilindrici e per quelli a sfere con anello sfilabile, sempre indicata in forma numerica.

SERIE COSTRUTTIVA

0	Cuscinetti obliqui a sfere
1	Cuscinetti orientabili a sfere
2	Cuscinetti orientabili a rulli, cuscinetti assiali orientabili a rulli
3	Cuscinetti a rulli conici
4	Cuscinetti radiali a due corone di sfere
5	Cuscinetti assiali a sfere
6	Cuscinetti radiali ad una corona di sfere
7	Cuscinetti obliqui a sfere ad una corona di sfere
8	Cuscinetti assiali a rulli cilindrici
N	Cuscinetti a rulli cilindrici
	Una o più lettere dopo "N" come NJ, NU, NUP, la sigla identifica una sotto famiglia dei cuscinetti a rulli cilindrici
QJ	Cuscinetti a quattro punti di contatto

La seconda parte della serie costituisce la serie dimensionale: si identificano le altre dimensioni del cuscinetto, precisamente il diametro esterno e la larghezza, rapportate al diametro del foro. Possiamo avere, a parità di foro e di diametro esterno, diverse larghezze. Si distinguono pertanto una serie di diametri ed una serie delle larghezze.

SUPPLEMENTARY DESIGNATIONS

The designation suffixes used to identify certain characteristics of ISB® deep groove radial ball bearings are the following:

C2	Internal radial clearance smaller than Normal
C3	Internal radial clearance greater than Normal
C4	Internal radial clearance greater than C3
C5	Internal radial clearance greater than C4
N	Groove for snap ring on outer ring
NR	Groove for snap ring on outer ring, with snap ring
P5	Dimensional and rotation precision pursuant to tolerance class 5 of ISO standard
P6	Dimensional and rotation precision pursuant to tolerance class 6 of ISO standard
RS	Nitrile-Butadiene-Rubber (NBR) seal with pressed sheet steel reinforcement, on one side of the bearing
TN	Injection moulded cage of polyamide
TN9	Injection moulded cage of polyamide 6.6 with fibreglass reinforcement
Z	Pressed sheet steel shield (no contact seal) on one side of the bearing
2RS	Nitrile-Butadiene-Rubber (NBR) seal with sheet steel reinforcement, on both sides of the bearing
ZZ	Z shield on both sides of the bearing
ZZNR	Groove for snap ring on outer ring with snap ring and pressed sheet steel shields on both sides of the bearing

APPELLATIVI SUPPLEMENTARI

I suffissi nell'appellativo utilizzati per identificare alcune caratteristiche dei cuscinetti radiali a sfere ISB® sono i seguenti:

C2	Gioco radiale interno inferiore al Normale
C3	Gioco radiale interno maggiore al Normale
C4	Gioco radiale interno maggiore di C3
C5	Gioco radiale interno maggiore di C4
N	Scanalatura per anello elastico sull'anello esterno
NR	Scanalatura per anello elastico sull'anello esterno, con anello elastico
P5	Precisione dimensionale e di rotazione secondo la classe di tolleranza 5 della norma ISO
P6	Precisione dimensionale e di rotazione secondo la classe di tolleranza 6 della norma ISO
RS	Tenuta in gomma acrilonitrilbutadiene (NBR) con rinforzo in lamiera stampata, da un lato del cuscinetto
TN	Gabbia stampata ad iniezione in poliammide
TN9	Gabbia stampata ad iniezione in poliammide 6,6 rinforzata con fibre di vetro
Z	Schermo in lamiera stampata (tenuta non strisciante) da un lato del cuscinetto
2RS	Tenuta in gomma acrilonitrilbutadiene (NBR) con rinforzo in lamiera, da entrambi i lati del cuscinetto
ZZ	Schermo Z da entrambi i lati del cuscinetto
ZZNR	Scanalatura per anello elastico sull'anello esterno, con anello elastico e schermi in lamiera stampata da entrambi i lati del cuscinetto

	Specifiche Rumorosità (accelerazione)																Redatto da / Drawn up by							
	Noise specification (acceleration)																Leo Iori							
	Cuscinetti Radiali Rigidi a Sfera(JB/T 7047-2006)																Data / Date							
	Radial ball bearings (JB/T 7047-2006)																23/05/2013							
SERIE DIAMETRALI																								
Ø diametro Ø diameter	0								2								3							
	Z	Z1	Z2	Z3	Z4	ZP3	ZP4	Z	Z1	Z2	Z3	Z4	ZP3	ZP4	Z	Z1	Z2	Z3	Z4	ZP3	ZP4			
3	35	34	32	28	24	44	40	36	35	32	30	26	46	42	37	36	33	31	27	47	43			
4	35	34	32	28	24	44	40	36	35	32	30	26	46	42	37	36	33	31	27	47	43			
5	37	36	34	30	26	46	42	38	37	34	32	28	48	44	39	37	35	33	29	49	45			
6	37	36	34	30	26	46	42	38	37	34	32	28	48	44	39	37	35	33	29	49	45			
7	39	38	35	31	27	47	43	40	38	36	34	29	50	45	41	39	37	35	30	51	46			
8	39	38	35	31	27	47	43	40	38	36	34	29	50	45	41	39	37	35	30	51	46			
9	41	40	36	32	28	48	44	42	40	37	35	30	51	46	43	41	39	37	32	53	48			
10	43	42	38	33	28	49	44	44	42	39	35	30	51	46	46	44	40	37	32	53	48			
12	44	43	39	34	29	50	45	45	43	39	35	30	51	46	47	45	40	37	32	53	48			
15	45	44	40	35	30	51	46	46	44	41	36	31	52	47	48	46	42	38	33	54	49			

		Specifiche Vibrazioni (velocità) Vibration specification (speed)																Redatto da / Drawn up by	
		Cuscinetti Radiali Rigidi a Sfera (JB/T 10187-2000) Radial ball bearings (JB/T 10187-2000)																Leo Iori	
																		Data / Date	
		23/05/2013																	
L = low frequency (50 + 300 Hz) - M = medium frequency (300 + 1800 Hz) - H = high frequency (1800 + 10000 Hz)																			
Ø Diametro Ø Diameter	V				V1			V2			V3			V4					
	L	M	H		L	M	H	L	M	H	L	M	H	L	M	H			
	3	80	44	44	60	35	32	48	26	22	31	16	15	28	10	10			
	4	80	44	44	60	35	32	48	26	22	31	16	15	28	10	10			
	5	110	72	60	74	48	40	58	36	30	35	21	18	32	11	11			
	6	110	72	60	74	48	40	58	36	30	35	21	18	32	11	11			
	7	130	96	80	92	66	54	72	48	40	44	28	24	38	12	12			
	8	130	96	80	92	66	54	72	48	40	44	28	24	38	12	12			
	9	130	96	80	92	66	54	72	48	40	44	28	24	38	12	12			
	10	160	120	100	120	80	70	90	60	50	55	35	30	45	14	15			
	12	160	120	100	120	80	70	90	60	50	55	35	30	45	14	15			
	15	210	150	120	150	100	85	110	78	60	65	46	35	52	18	18			
	17	210	150	120	150	100	85	110	78	60	65	46	35	52	25	25			
	20	260	190	150	180	125	100	130	100	75	80	60	45	60	25	25			
	22	260	190	150	180	125	100	130	100	75	80	60	45	60	30	32			
	25	260	190	150	180	125	100	130	100	75	80	60	45	60	30	32			

4. CLEANING OF THE ASSEMBLY SITE

Before starting the assembly phase, clean the working area to avoid contamination of the bearing surfaces.

Here are some possible problems due to the presence of contaminants on surfaces:



Fig. 10

Part: inner ring of a tapered roller thrust bearing

Symptom: scoring on the face of inner ring rib

Cause: worn particles become mixed with lubricant and breakdown of oil film occurs due to excessive load

4. PULIZIA DEL LUOGO DI MONTAGGIO

Prima di iniziare le attività di montaggio provvedere alla pulizia dell'area di lavoro per evitare la contaminazione per trasferimento delle superfici del cuscinetto.

Di seguito alcune possibili problematiche dovute alla presenza di agenti contaminanti sulle superfici:

Fig. 10

Componente: anello interno di un cuscinetto assiale a rulli conici

Evidenze: rigature sul piano dell'orletto dell'anello interno

Causa: detriti dispersi nel lubrificante e rottura del film di lubrificante dovuta al carico eccessivo



Fig. 11

Part: inner ring of a double-row tapered roller bearing

Symptom: frosted raceway surface

Cause: debris caught in the surface

Fig. 11

Componente: anello interno di un cuscinetto a rulli conici a doppia corona

Evidenze: superficie della pista smerigliata

Causa: impurità portate in superficie



Fig. 12

Part: outer ring of a double-row tapered roller bearing

Symptom: indentations on raceway surface

Cause: debris caught in the surface

Fig. 12

Componente: anello esterno di un cuscinetto a rulli conici a doppia corona

Evidenze: ammaccature sulla pista

Causa: impurità portate in superficie



Fig. 13

Part: inner ring of a tapered roller bearing

Symptom: small and large indentations occur over entire raceway surface

Cause: debris caught in the surface

Fig. 13

Componente: anello interno di un cuscinetto a rulli conici

Evidenze: ammaccature di varie dimensioni sull'intera pista

Causa: impurità portate in superficie



Fig. 14

(Abrasive) Wear on tapered roller bearing

Cause of failure:

contaminated lubricant causing wear of the bearing contacting surfaces, which is clearly illustrated on the roller end faces.

Countermeasure:

improve system cleanliness.

Fig. 14

(Abrasion) Usura su cuscinetto a rulli conici

Causa del danneggiamento:

lubrificazione contaminata che causa usura del cuscinetto sulle superfici a contatto, chiaramente visibile sulle superfici laterali dei rulli.

Contromisure:

migliorare la pulizia.



5. BEARING ASSEMBLY

ATTENTION: all phases of bearing handling must be carried out taking care not to damage the surfaces and not to bring the bearing in contact with potentially aggressive substances that could alter its surface condition; among these, also fingerprints caused by handling without gloves.

Fig. 15
Corrosion, hand perspiration (fingerprint)

Cause of failure:

faulty handling, bearing in the unpreserved condition was touched with perspiring hands.

Countermeasure:

avoid touching bearings with moist/perspiring hands. Use gloves or a barrier cream.

Bearing assembly is a procedure that requires some preliminary activities, which can be summarized in the list below:

1. Bearing cleaning
2. Cleaning of the coupling housings
3. Verification of the coupling housings
4. Bearing splicement.

During the bearing handling it is necessary to pay attention in order to avoid their damage or deformation; here are some representative images of advice related to precautions that should be adopted during the handling phases of bigger bearings which, where possible and where required, can be provided with holes for eyebolts fixing:

5. MONTAGGIO DEL CUSCINETTO

ATTENZIONE: tutte le fasi di manipolazione del cuscinetto devono essere eseguite avendo cura di non danneggiare le superfici e di non portare a contatto il cuscinetto con sostanze potenzialmente aggressive che potrebbero alterarne lo stato superficiali; tra queste anche le mani nude.

Fig. 15
Corrosione, sudore delle mani (impronte digitali)

Causa del danneggiamento:

movimentazione impropria, cuscinetto privo di olio protettivo manipolato a mani nude.

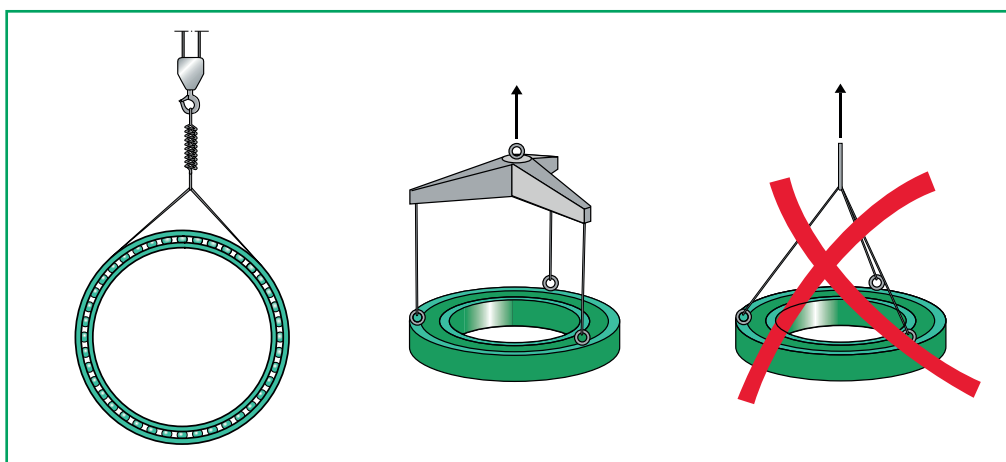
Contromisure:

evitare il contatto col cuscinetto a mani nude. Usare guanti o una crema protettiva.

Il montaggio del cuscinetto è una procedura che necessita di alcune attività preliminari, che si possono schematizzare nell'elenco di seguito:

1. Pulitura del cuscinetto
2. Pulitura delle sedi di accoppiamento
3. Verifica delle sedi di accoppiamento
4. Calettamento del cuscinetto.

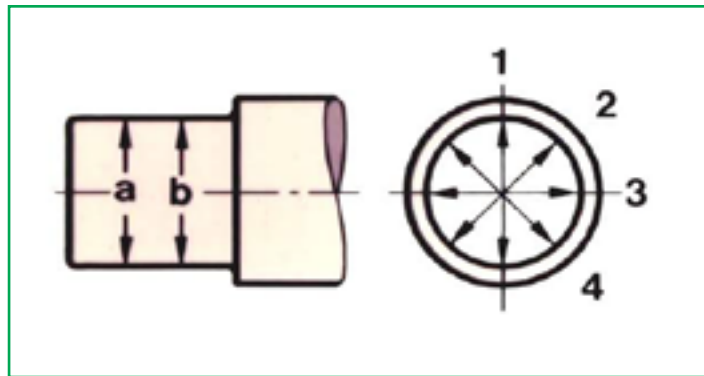
Durante le fasi di movimentazione dei cuscinetti è necessario prestare la massima attenzione al fine di evitare l'insorgere di danneggiamenti o deformazioni; di seguito alcune immagini rappresentative di consigli sugli accorgimenti che è bene adottare durante le fasi di movimentazione di cuscinetti di grandi dimensioni che, ove possibile ed ove richiesto, possono essere provvisti di fori per l'inserimento di golfari:



5.1 CHECKING THE COUPLING SEATS

The verification of the dimensional accuracy (seat tolerances) and shape (roundness and perpendicularity) of all components adjacent to the bearing, becomes a strategic activity to guarantee the service life of the bearing.

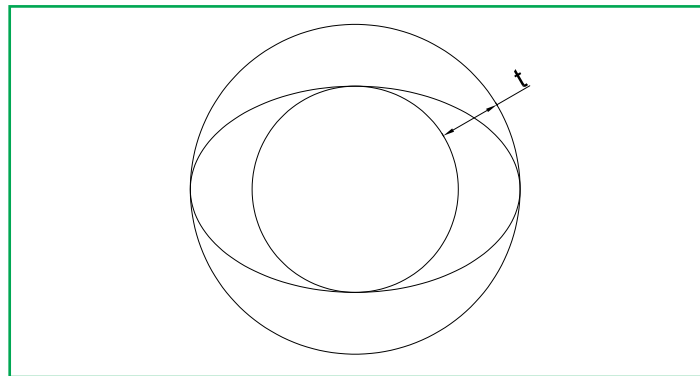
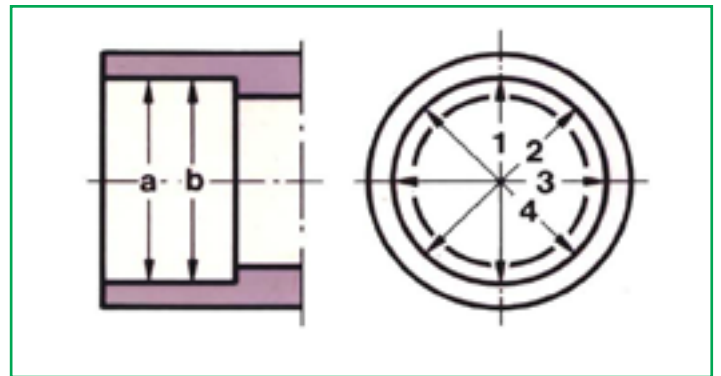
Dimensional control must not only provide dimensional verification, but also the shape error (circularity and cylindricity) and the coaxiality of the seats.



5.1 VERIFICA DELLE SEDI DI ACCOPPIAMENTO

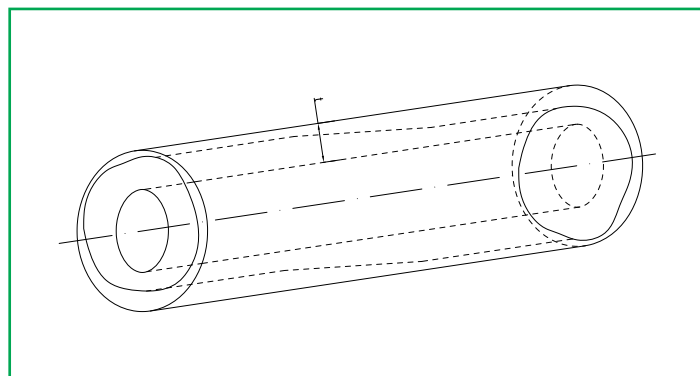
La verifica della precisione dimensionale (tolleranze delle sedi) e di forma (rotondità e quadratura) di tutti i componenti adiacenti al cuscinetto diventa un'attività strategica per garantire la durata di esercizio del cuscinetto.

Il controllo dimensionale deve prevedere non solo il rispetto dimensionale dei diametri, ma anche l'errore di forma (circolarità e cilindricità) e la coassialità delle sedi.



The tolerance zone is limited by two concentric circles whose radii differ for the t value.

La zona di tolleranza è limitata da due cerchi concentrici i cui raggi differiscono per il valore t .



The tolerance zone is limited by two concentric cylinders whose radii differ for the t value.

La zona di tolleranza è limitata da due cilindri concentrici i cui raggi differiscono per il valore t .

Problems related to the missing verification of the coupling seats (dimensional problems):

Problematiche connesse con la mancata verifica delle sedi di accoppiamento (problematiche dimensionali):



Fig. 16
Full running path pattern around entire raceway circumference of stationary outer ring of self-aligning ball bearing with rotating inner ring

Cause of failure:

temperature difference between shaft and housing too large; adjacent parts not within tolerances; wrong selection of bearing internal clearance.

Countermeasure:

check dimensions of shaft and housing. Check temperature influence on bearing clearance. Select bearing with suitable clearance. If the inner ring is mounted on tapered seating, select correct driving up distance.

Fig. 16
Danneggiamento dell'intera circonferenza della pista dell'anello esterno stazionario di un cuscinetto orientabile a sfere con anello interno rotante

Causa del danneggiamento:

elevata differenza di temperatura tra albero e sede; componenti adiacenti non in tolleranza; gioco interno del cuscinetto non corretto.

Contromisure:

verificare le dimensioni dell'albero e della sede. Verificare l'influenza della temperatura sul gioco del cuscinetto. Selezionare un cuscinetto con gioco radiale corretto. Se l'anello interno è montato su una sede conica, verificare la corretta misura di posizionamento.



Fig. 17
Fretting corrosion on entire surface of inner ring bore

Cause of failure:

insufficient interference fit. Repeated sliding between inner ring and shaft causing fretting corrosion. In this case, creeping of the inner ring has also occurred.

Countermeasure:

specify adequate fit with in relation to load. Consider influence of surface roughness of shaft seating.

Fig. 17
Corrosione da sfregamento dell'intera superficie del foro

Causa del danneggiamento:

interferenza insufficiente. Slittamento ripetuto tra l'anello interno e l'albero che causa corrosione. In questo caso, anche strisciamento dell'anello interno.

Contromisure:

specificare l'interferenza corretta in funzione del carico. Considerare anche la rugosità della sede sull'albero.



Fig. 18
Highly polished outside surface of outer ring over entire circumference, scratches and indications of fretting corrosion partly visible

Cause of failure:

loose fit between outer ring and housing and a radial load rotating in relation to the outer ring.

Resulting creep of the outer ring in the housing had a polishing effect on the outside surface of the outer ring. Scratches and slight indications of fretting corrosion are visible.

Countermeasure:

choose correct fit in relation to load and operating conditions.

Fig. 18

Lucidatura dell'intera circonferenza dell'anello esterno, visibili danneggiamenti ed evidenze di corrosione

Causa del danneggiamento:

perdita di bloccaggio tra l'anello esterno e la sede e carico radiale rotante rispetto all'anello esterno. Conseguente strisciamento dell'anello esterno nella sede che lucida l'anello esterno. Sono visibili rigature e segni di corrosione da strisciamento.

Contromisure:

specificare l'interferenza corretta in funzione del carico e delle condizioni operative.



Fig. 19

Part: inner ring of a spherical roller bearing

Symptom: creep accompanied by scoring of bore surface

Cause: insufficient interference

Fig. 19

Componente: anello interno di un cuscinetto a rulli sferici

Evidenze: strisciamento con rigature della superficie del foro

Causa: interferenza insufficiente

5.2 VERIFICATION OF THE ALIGNMENT OF THE COUPLING HOUSINGS

The assembly of the bearings must be performed obtaining a good final alignment of their rings, both for coaxiality and for angular positioning.

A misalignment of shaft may have several important consequences for the system, including:

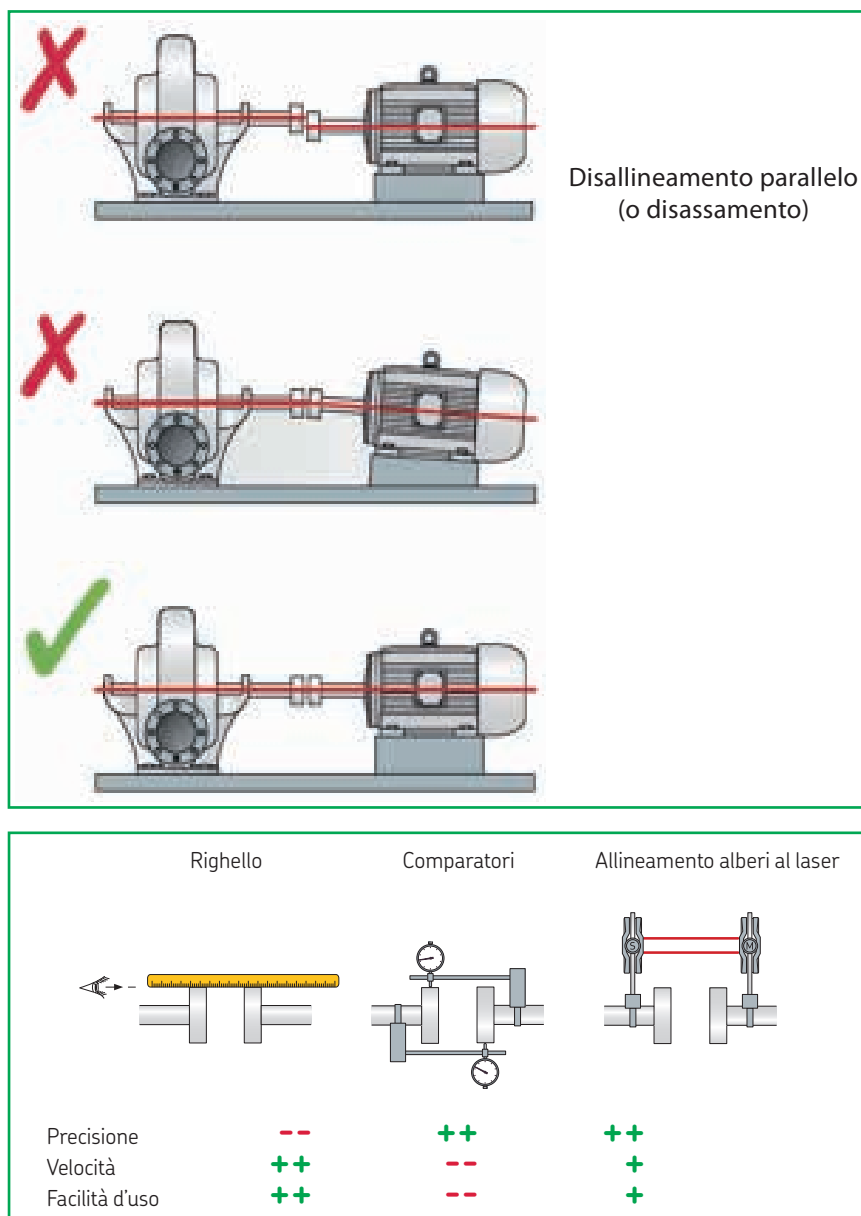
- Higher friction and consequently higher energy consumption
- Premature failure of bearings and seals
- Premature failure of the shaft and the coupling
- Excessive loss of lubricant from the seals
- Breakage of couplings and bolts
- Higher vibration and noise

5.2 VERIFICA DELL'ALLINEAMENTO DELLE SEDI DI ACCOPPIAMENTO

L'assemblaggio dei cuscinetti deve essere eseguito ottenendo un buon allineamento finale degli anelli del cuscinetto, sia per coassialità, che per posizionamento angolare.

Un disallineamento degli alberi può avere diverse conseguenze importanti per il sistema, tra le quali:

- Maggiore attrito e di conseguenza maggiore consumo di energia
- Cedimento prematuro dei cuscinetti e delle tenute
- Cedimento prematuro dell'albero e dell'accoppiamento
- Eccessiva perdita di lubrificante dalle tenute
- Rotture degli accoppiamenti e dei bulloni
- Maggiori vibrazioni e rumore



Problems related to the missing verification of the coupling housings (alignment problems):

Problematiche connesse con la mancata verifica delle sedi di accoppiamento (problematiche di allineamento):



Fig. 20
Oblique running path flaking pattern on inner ring raceway

Fig. 20
Usura obliqua di rotolamento sulla pista dell'anello interno

Cause of failure:

misalignment during operation; shaft deflection; abutment faces on mating part(s) out-of-square.

Countermeasure:

check that the equipment is suitable for the bearing type. Eliminate misalignment or select a bearing type suitable to accommodate the misalignment. Reduce shaft deflection. Check the squareness of the abutment faces on mating part(s).

Causa del danneggiamento:

disallineamento durante il funzionamento; inclinazione dell'albero con posizionamento fuori squadra degli spallamenti.

Contromisure:

verificare che le attrezzature siano ottimali per il tipo di cuscinetto. Eliminare i disallineamenti o utilizzare cuscinetti che ammettano disallineamenti. Ridurre l'inclinazione dell'albero. Verificare la perpendicolarità delle superfici di spallamento.

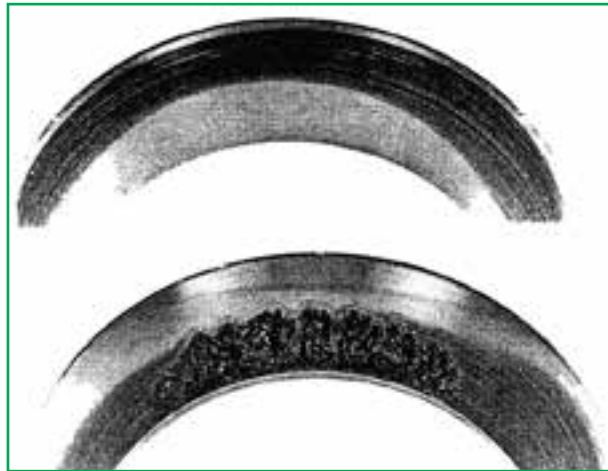


Fig. 21
Overload

Cause of failure:

excessive misalignment of a tapered roller bearing causing overloading and plastic deformation in part of the rolling element contact. This results in the flaking, shown as a cross contact pattern in the outer ring raceway.

Countermeasure:

check the application conditions regarding loading, alignment and shaft and housing deformation.

Fig. 21
Sovraccarichi

Causa del danneggiamento:

eccessivo disallineamento di un cuscinetto a rulli conici che causa sovraccarichi e deformazioni plastiche degli elementi a contatto. Questo comporta il fenomeno di flaking, sotto forma di segni di contatto sulla pista dell'anello esterno.

Contromisure:

verificare l'applicazione, nello specifico carichi, allineamenti e deformazioni di albero e sede



Fig. 22

Part: cage of an angular contact ball bearing

Symptom: pocket pillar fractures from a cast iron machined cage

Cause: abnormal load action on cage due to misaligned mounting between inner and outer rings

Fig. 22

Componente: gabbia di un cuscinetto a contatto angolare

Evidenze: danneggiamento delle tasche di una gabbia in acciaio lavorata

Causa: carico assiale anomalo sulla gabbia, dovuto a disallineamento al montaggio tra gli anelli del cuscinetto



Fig. 23

Part: inner ring of a cylindrical roller bearing

Symptom: axial scratches on raceway surface

Cause: inclination of inner and outer rings during mounting

Fig. 23

Componente: anello interno di un cuscinetto a rulli cilindrici

Evidenze: incisioni assiali sulla pista

Causa: inclinazione dei due anelli durante il montaggio


Fig. 24

Part: outer ring of a double-row cylindrical roller bearing
Symptom: axial scratches at roller pitch intervals on raceway surface
Cause: inclination of inner and outer rings during mounting

Fig. 24

Componente: anello esterno di un cuscinetto a rulli cilindrici a due corone
Evidenze: incisioni assiali sulla pista a passo rullo
Causa: inclinazione dei due anelli durante il montaggio


Fig. 25

Part: rollers of a cylindrical roller bearing
Symptom: axial scratches on rolling surface
Cause: inclination of inner and outer rings during mounting

Fig. 25

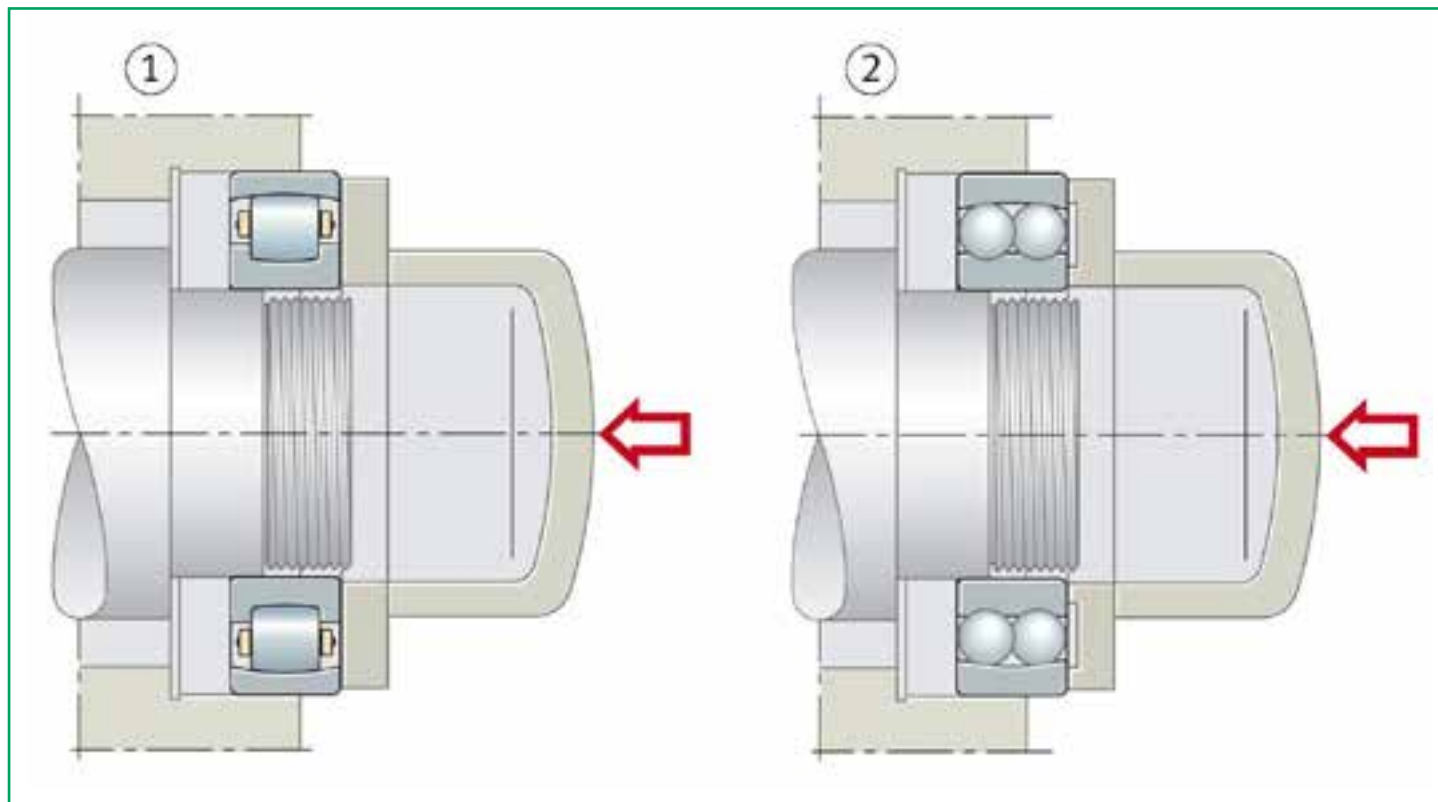
Componente: rulli di un cuscinetto a rulli cilindrici
Evidenze: incisioni assiali sulla superficie di rotolamento
Causa: inclinazione dei due anelli durante il montaggio

5.3 MECHANICAL SPLICEMENT OF THE BEARING

Mechanical splicement of the bearing is generally meant to be the assembly at the environmental condition; when this operation is carried out with a hammer and gauge, it must be paid attention not to hit the rings directly, instead using a device that must not have internal turning for the assembly of spherical roller bearings; internal turning must be performed on the device for some self aligning ball bearings assembly.

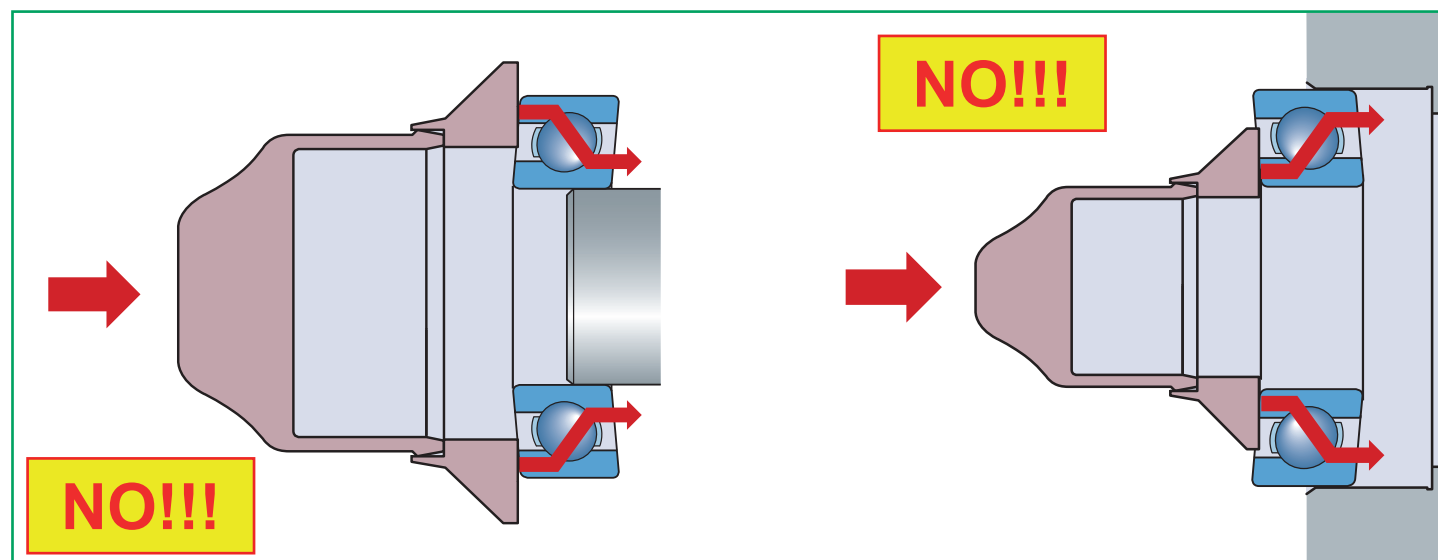
5.3 CALETTAMENTO MECCANICO DEL CUSCINETTO

Per calettamento meccanico del cuscinetto si intende genericamente il montaggio a freddo; quando questa operazione viene eseguita con martello e tampone, si deve prestare attenzione a non colpire mai direttamente gli anelli, ma di utilizzare un tampone che deve essere senza tornitura interna per il montaggio dei cuscinetti orientabili a rulli e con tornitura interna per alcuni cuscinetti orientabili a sfere.



Important note is to perform the assembly taking care not to transfer the load from one ring to another, passing through the rolling elements:

Nota importante è quella di eseguire il montaggio avendo cura di non trasferire il carico da un anello all'altro, passando attraverso i corpi volenti:

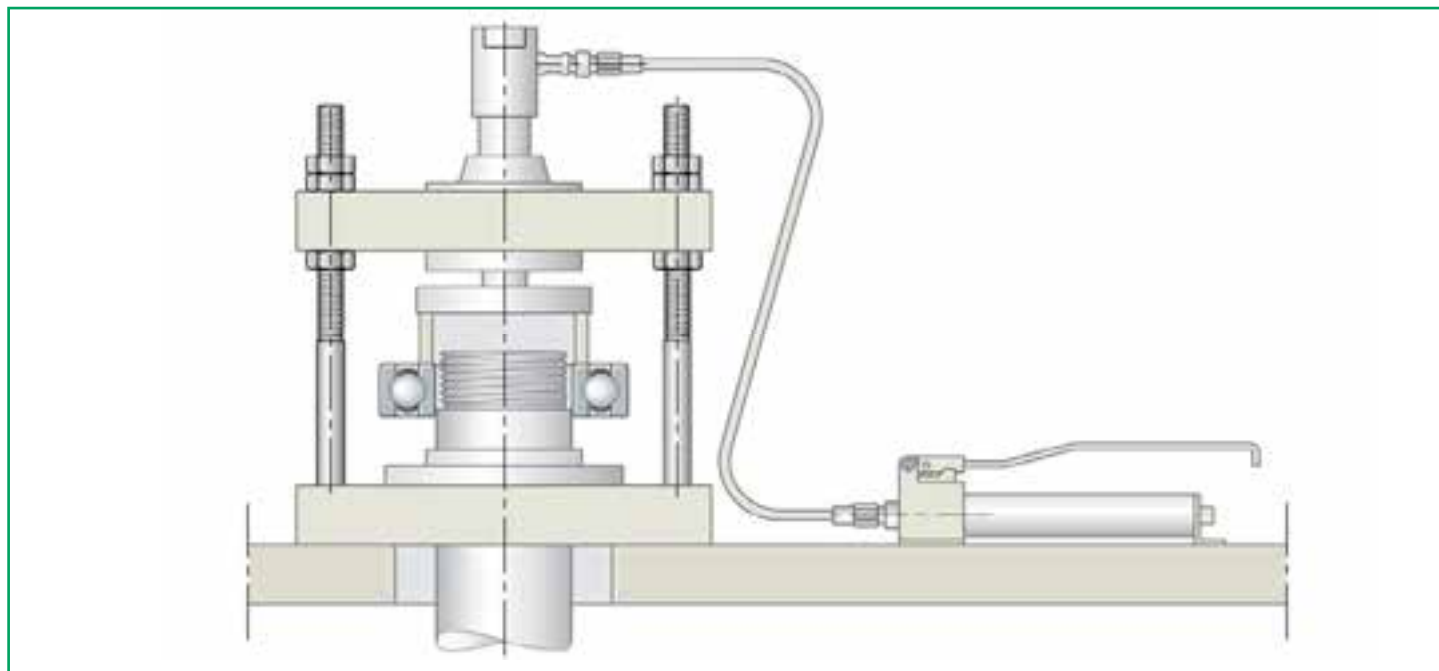


5.4 HYDRAULIC SPLICEMENT OF THE BEARING

A different possibility to perform the assembly of bearings with a diameter of approximately 80mm or less, is to perform a shrink fit using mechanical or hydraulic presses, always taking care to comply with the above detailed instructions.

5.4 CALETTAMENTO IDRAULICO DEL CUSCINETTO

Una diversa possibilità per eseguire il montaggio di cuscinetti con foro di diametro indicativamente minore o uguale a 80mm, è quella di eseguire un calettamento a freddo utilizzando presse meccaniche o idrauliche, sempre avendo cura di rispettare le prescrizioni sopra dettagliate.

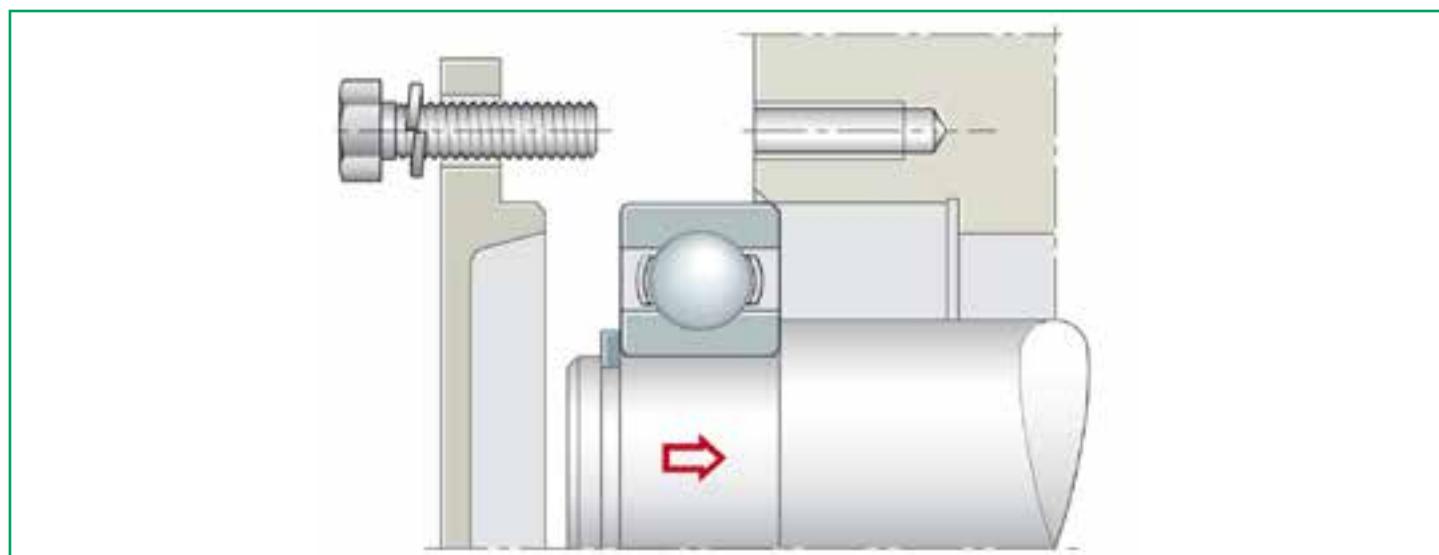


5.5 MECHANICAL SPLICEMENT OF THE BEARING

During bearings assembly, in order to avoid the denting of the races as a result of load transfer from one ring to the other through the rolling elements, it is necessary to apply the assembly forces to the ring that is mounted, always taking care of never directly hit the ring itself.

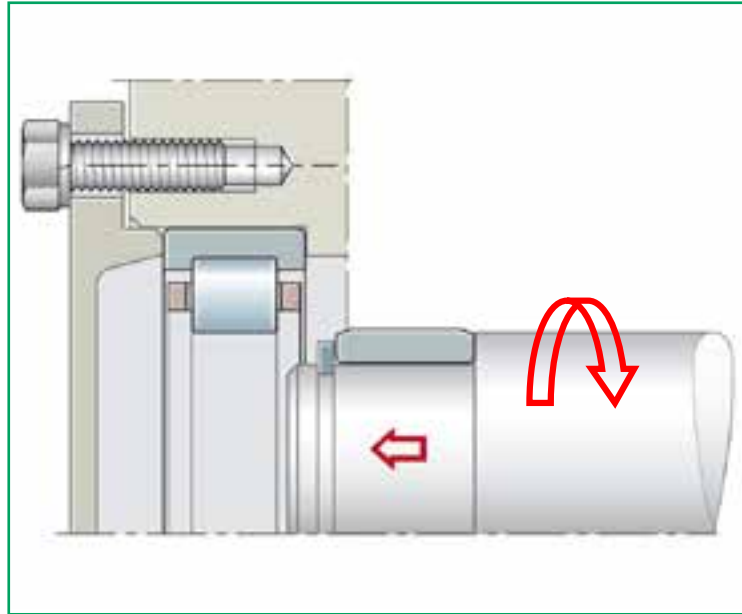
5.5 CALETTAMENTO MECCANICO DEL CUSCINETTO

Durante il montaggio dei cuscinetti, al fine di evitare l'ammaccatura delle piste a seguito di trasferimento di carico da un anello all'altro tramite i corpi volventi, è necessario applicare le forze di montaggio all'anello che viene montato, sempre avendo cura di non colpire mai direttamente l'anello stesso.



The assembly of the dismountable bearings is made easier by the fact that the rings can be mounted individually on the shaft and seat, then proceeding to their following coupling. In such cases, it is suggested to perform the final assembly by rotating the bearing to avoid scratches and markings of raceways and rolling elements.

Il montaggio dei cuscinetti scomponibili è facilitato dal fatto che gli anelli possono essere montati individualmente su albero e sede, salvo poi procedere al loro accoppiamento successivo. In questi casi si suggerisce di eseguire l'assemblaggio finale facendo ruotare il cuscinetto per evitare graffi e marcature di piste e corpi volenti.



Some possible fit solutions with <100mm hole bearings are the followings:

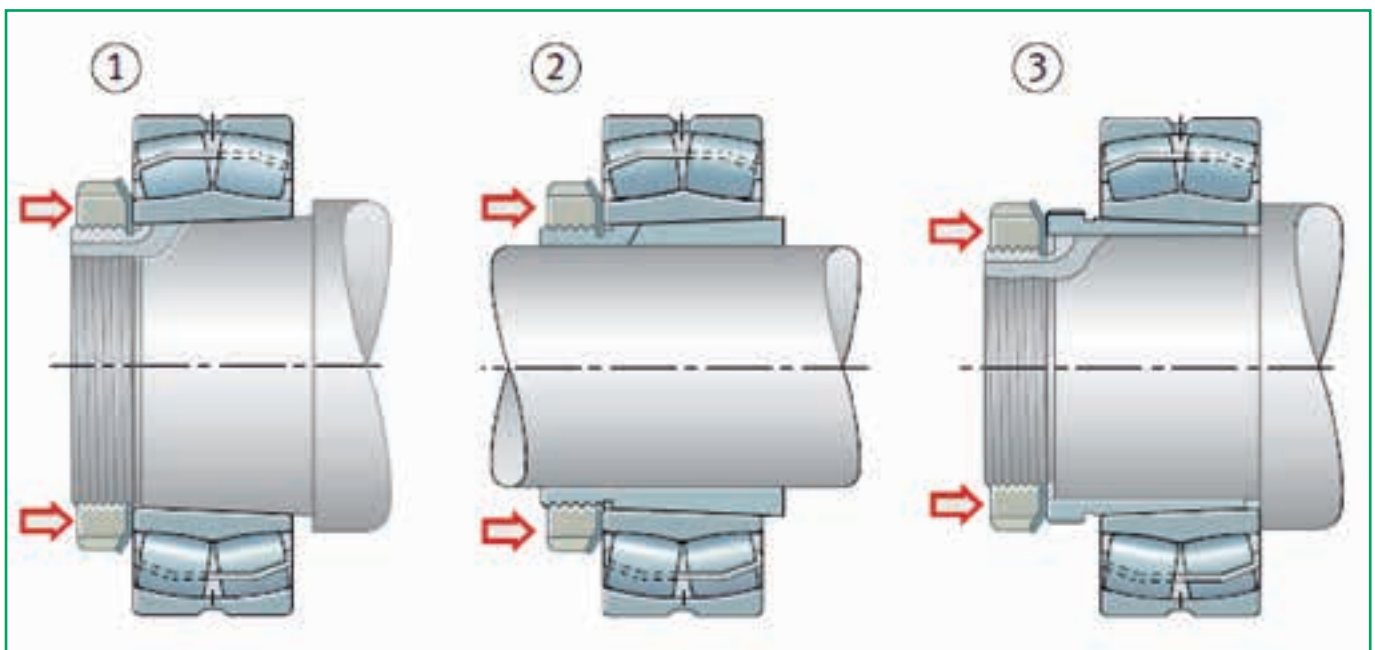
1. on conical shaft
2. with adapter sleeve
3. with withdrawal sleeve

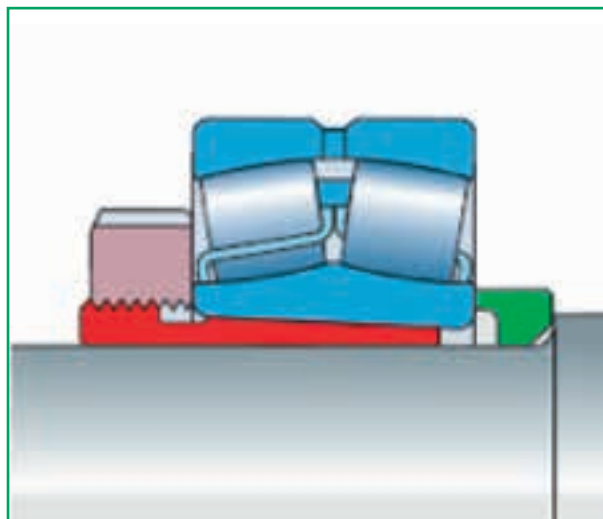
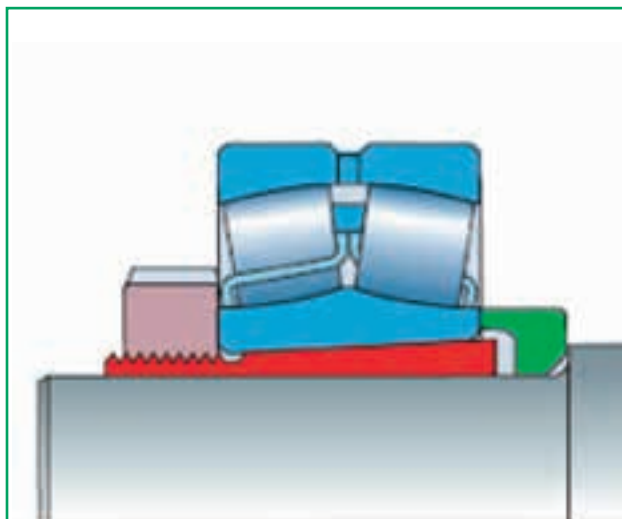
to be performed with some light lubrication of the sliding surfaces.

Alcune possibili soluzioni di calettamento con cuscinetti di foro <100mm sono quelle:

1. su albero conico
2. con bussola di trazione
3. con bussola di pressione

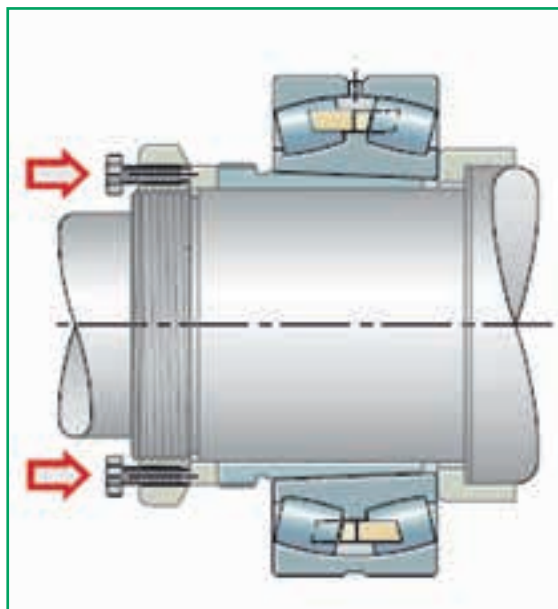
da eseguire prevedendo una leggera lubrificazione delle superfici in scorrimento relativo.





The assembly of medium-sized bearings (80-200 mm) must be carried out by inserting a protective spacer between the screw and the bearing.

Il montaggio dei cuscinetti di medie dimensioni (80-200 mm) deve invece essere condotto inserendo un distanziale di protezione tra vite e cuscinetto.



5.6 MECHANICAL SPLICEMENT OF COMPOSED BEARING AND ANGULAR CONTACT BEARINGS FOR "UNIVERSAL" COUPLING

During the assembly of bearings with dismountable components (tapered rollers, thrust ball bearings and rollers, etc.), the separate splicing of the two separable elements is provided.

It is good to remember that each bearing is a single entity and therefore defined individually, and the peculiarities of each of the components of the bearing gives characteristics of uniqueness to the bearing itself: for this reason, it is important NOT to mix the components of homologous bearings during assembly.

Therefore, special tools and equipments must be provided for the separate assembly of each component, without exchanging them on the various applications to be assembled.

5.6 CALETTAMENTO MECCANICO DI CUSCINETTI A PARTI SCOMPONIBILI E CUSCINETTI A CONTATTO ANGOLARE PER ACCOPPIAMENTO «UNIVERSALE»

Nel montaggio di cuscinetti con componenti scomponibili (rulli conici, assiali a sfere e rulli etc.), è previsto il calettamento distinto dei due elementi tra loro separabili.

È bene ricordare come ogni singolo cuscinetto sia un'entità lavorata e quindi definita singolarmente, e le peculiarità di ciascuno dei componenti il cuscinetto dona caratteristiche di unicità al cuscinetto stesso: per questo motivo, è bene NON mescolare i componenti di cuscinetti omologhi in fase di assemblaggio.

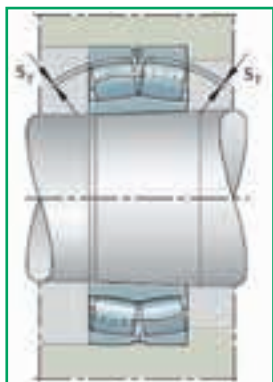
Devono dunque essere predisposti speciali tamponi e attrezzature per il montaggio separato di ciascuno dei componenti, senza però scambiare gli stessi sui vari gruppi da assemblare.

Even in case of angular contact bearings "for universal coupling", it should be remembered that this type is made "in pair", as each couple becomes a functional unit, which can not be mixed with bearings of other couples, in order not to modify fundamental dimensional characteristics, such as preloads or residual axial clearances.

5.7 MECHANICAL SPLICEMENT OF BEARINGS WITH CONICAL HOLE

The progressive splicement of the bearing with a tapered bore on the tapered seat (tapered shaft or sleeve) determines a progressive reduction of the radial clearance, whose entity must be monitored throughout the forcing phase, until completion.

The clearance, which can be measured with thickness gauges, must be checked on both races in order to verify the correctness of the assembly.

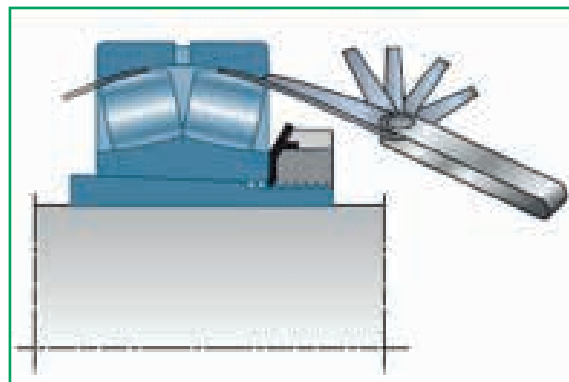


Allo stesso modo, anche nel caso di cuscinetti a contatto angolare "per accoppiamento universale", è bene ricordare che questa tipologia viene realizzata "a coppie", in quanto ogni coppia diventa un'unità funzionale propria, che non può essere mescolata con altri cuscinetti di altre coppie, per non modificare caratteristiche dimensionali fondamentali, quali eventuali precarichi o giuochi assiali residui.

5.7 CALETTAMENTO MECCANICO DI CUSCINETTI CON FORO CONICO

Il calettamento progressivo del cuscinetto con foro conico sulla sede conica (albero conico o bussola) determina una progressiva riduzione del gioco radiale, la cui entità deve essere monitorata durante tutta la fase di forzamento, fino al completamento.

Il gioco, che può essere misurato mediante spessimetri, deve essere verificato su entrambe le piste al fine di comprovare la correttezza del montaggio.



5.8 THERMAL MOUNTING OF THE BEARING

Assembly with thermal methods is suggested where hydraulic presses and mechanical procedures are not applicable to the fitting of bearings with cylindrical bore, for which a forced coupling is provided; in these cases it is possible to proceed using one of the following methods:

- Oil bath
- Electric plate
- Induction heaters
- Oven
- Electro-induction

The choice of the device is made in relation to the characteristics of the bearing to be mounted and involves the adoption of various precautions.

In any case, the general recommendation is to pay particular attention to never exceed 120 ° C in the heating of non-stabilized bearings (otherwise classified as "S" or "bonderized"), in order to avoid alterations in the metallographic structure and the characteristics of the materials, as well as putting special care while treating bearings with plastic cages which, due to their characteristics, are much more sensitive to high temperatures.

5.8 MONTAGGIO TERMICO DEL CUSCINETTO

Il montaggio mediante metodi termici viene suggerito laddove le presse idrauliche e le procedure meccaniche non sono applicabili al calettamento di cuscinetti con foro cilindrico, per i quali è previsto un accoppiamento forzato; in questi casi si può procedere impiegando uno dei seguenti metodi:

- Bagno d'olio
- Piastra elettrica
- Riscaldatori ad induzione
- Forno
- Elettroinduzione

La scelta del dispositivo viene fatta in relazione alle caratteristiche del cuscinetto da montare e comporta l'adozione di diversi accorgimenti e cautele.

In ogni caso, la raccomandazione generale è quella di prestare particolare attenzione a non superare mai i 120°C nel riscaldamento di cuscinetti non stabilizzati (altrimenti classificati "S" o "bonderizzati") per evitare alterazioni della struttura metallografica e delle caratteristiche dei materiali, nonché di trattare con particolare cura cuscinetti con gabbie in plastica che, per caratteristica propria di questo materiale, risultano molto più sensibili alle temperature elevate.

Lastly, it is not recommended to use a free flame to heat the bearings, not only because the system is inefficient and uncontrolled, as well as dangerous for the operator, but also because it often causes damages to the bearings.

5.8.1 THERMAL MOUNTING OF THE BEARING - OIL BATH

This type of assembly is suitable for all bearing sizes and allow to reach temperatures of about 80-100 ° C.

However, it should be noted that:

- in the oil bath it often takes a long time to reach the required temperature, moreover with an important energy consumption and an approximate control of the real temperature reached by the bearings
- the risk of bearing contamination, in the presence of dirty or used oil, is considerable and may lead to its premature failure
- considering that locally higher temperatures can be reach in the bath, which could deteriorate the bearing, interpose an insulating support between the bearing and the bottom of the container
- handling hot, greasy and slippery bearings involves important risks for the operator and careful attention must be paid to avoid potential injuries.

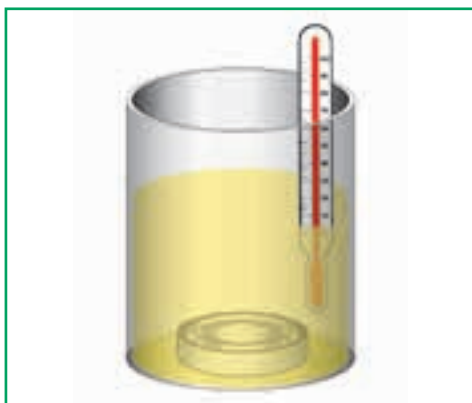
Si sconsiglia infine l'uso di una fiamma libera per riscaldare i cuscinetti non solo perché il sistema è inefficiente ed incontrollato, oltre che pericoloso per l'operatore, ma anche perché spesso causa il danneggiamento dei cuscinetti.

5.8.1 MONTAGGIO TERMICO DEL CUSCINETTO - BAGNO D'OLIO

Questo tipo di montaggio è adatto a tutte le dimensioni di cuscinetti e prevede il raggiungimento di temperature di circa 80-100°C.

Si segnala però che:

- *spesso con i bagni d'olio si impiega molto tempo per raggiungere la temperatura richiesta, peraltro a fronte di un importante consumo di energia e di un controllo approssimativo della reale temperatura raggiunta dai cuscinetti*
- *il rischio di contaminare il cuscinetto, in presenza di olio sporco o utilizzato, è notevole e può portare al cedimento prematuro dello stesso*
- *considerato che nel bagno possono prodursi temperature localmente più elevate in grado di deteriorare il cuscinetto, interporre un supporto isolante tra il cuscinetto ed il fondo del recipiente*
- *maneggiare cuscinetti caldi, unti e scivolosi presenta rischi importanti per l'operatore ed è necessario prestare molta attenzione per evitare potenziali infortuni.*



5.8.2 THERMAL MOUNTING OF THE BEARING - ELECTRIC PLATE

These devices find application for the assembly of medium-small bearings, and give the possibility to regulate the temperature; indicatively, a temperature of 80-100 ° C is generally sufficient for assembly.

However, It should be noted that, while proceeding with the electric plate it is necessary to turn the bearing several times to obtain a uniform heating which must not however exceed the temperature of 120 ° C for standard bearings; therefore, it is not recommended for large bearings, not only for economic and time inefficiencies, but also to reduce the risks for the operator during handling.

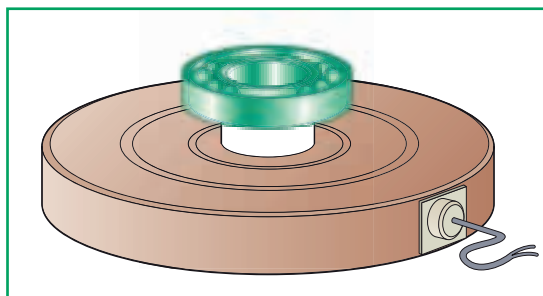
5.8.2 MONTAGGIO TERMICO DEL CUSCINETTO - PIASTRA ELETTRICA

Questi dispositivi trovano applicazione per il montaggio di cuscinetti medio piccoli, e danno la possibilità di regolare la temperatura; indicativamente, una temperatura di 80-100 ° C è generalmente sufficiente al montaggio.

Si segnala tuttavia che procedendo con la piastra elettrica è necessario girare il cuscinetto più volte per ottenere un riscaldamento uniforme che non deve comunque superare la temperatura di 120°C per cuscinetti standard; se ne sconsiglia quindi l'impiego per cuscinetti grandi, non solo per le inefficienze economiche e di tempo, ma anche per ridurre i rischi per l'operatore durante la manipolazione.

It should also be noted that it is advisable to avoid direct contact of the bearing with the plate by means of a thickness, especially if the heated plate does not require automatic adjustment. The thickness is mandatory for sealed bearings.

Si segnala inoltre che è bene evitare il contatto diretto del cuscinetto con la piastra per mezzo di uno spessore, soprattutto nel caso in cui la piastra riscaldata non comporti una regolazione automatica. Lo spessore è obbligatorio per i cuscinetti stagni.

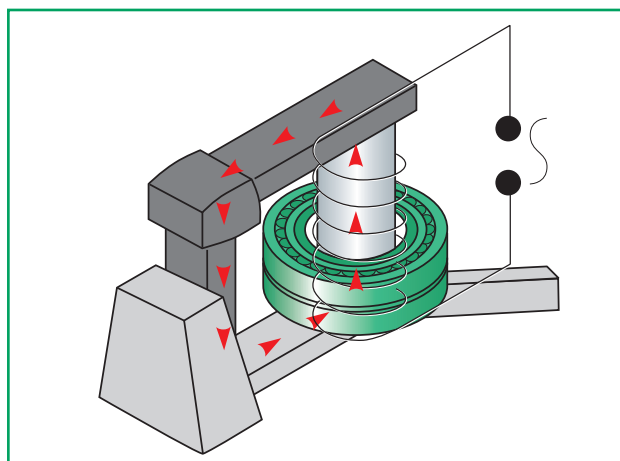


5.8.3 THERMAL MOUNTING OF THE BEARING - INDUCTION HEATERS

This type of device finds application for bearings of all sizes and types, and is characterized by a fast process that does not involve parts contamination, therefore it is suitable for series assembly; another positive aspect is that the induction heaters allow automatic demagnetization after assembly of the pieces.

5.8.3 MONTAGGIO TERMICO DEL CUSCINETTO - RISCALDATORI AD INDUZIONE

Questo tipo di dispositivo trova applicazione per cuscinetti di tutte le dimensioni e tipologie, è caratterizzato da un processo veloce che non comporta contaminazione dei particolari e che quindi risulta indicato per montaggi in serie; altro aspetto positivo è che i riscaldatori ad induzione permettono la smagnetizzazione automatica dopo il montaggio dei pezzi.

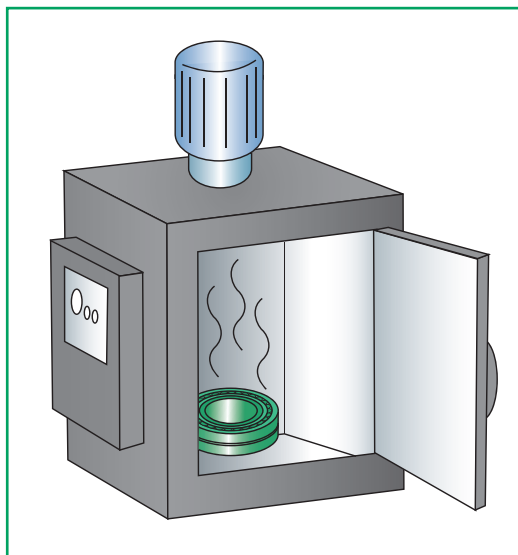


5.8.4 THERMAL MOUNTING OF THE BEARING - OVEN

The oven is a device that can be used for small and medium sized bearings, which allows heating without contamination problems but which, by contrast and in analogy to the electric plate system, is not recommended for large bearings, not only for economic and time inefficiencies, but also to reduce risks to the operator during handling.

5.8.4 MONTAGGIO TERMICO DEL CUSCINETTO - FORNO

Questo tipo di dispositivo trova applicazione per cuscinetti di tutte le dimensioni e tipologie, è caratterizzato da un processo veloce che non comporta contaminazione dei particolari e che quindi risulta indicato per montaggi in serie; altro aspetto positivo è che i riscaldatori ad induzione permettono la smagnetizzazione automatica dopo il montaggio dei pezzi.



5.8.5 THERMAL MOUNTING OF THE BEARING - ELECTROINDUCTION

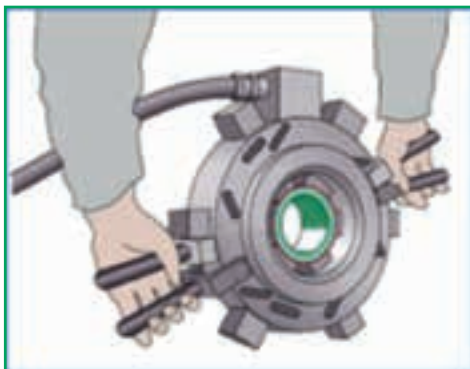
This type of heater is recommended for mounting small and medium-sized bearings, for smooth inner rings of roller bearings; as per the speed of the process, induction heaters are used mainly in series assembly.

The aspect to consider when choosing this device is the lack of flexibility, linked to the fact that each ring size requires a dedicated heater.

5.8.5 MONTAGGIO TERMICO DEL CUSCINETTO - ELETTROINDUZIONE

Questo tipo di riscaldatore viene consigliato per il montaggio di cuscinetti di piccole e medie dimensioni, per anelli interni lisci (inner ring) di cuscinetti a rullini e a rulli; data la rapidità del processo, i riscaldatori ad induzione trovano applicazione soprattutto nei montaggi in serie.

L'aspetto da considerare nella scelta di questo dispositivo è la scarsa flessibilità, legata al fatto che ogni dimensione di anello richiede un riscaldatore dedicato.





SYNOPSIS *SINOSSI*



Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
1	3	1	F681	1
1	3	1	681	4
1	3	1,50	MR31	4
1	4	1,60	F691	1
1	4	1,60	691	4
1,20	4	1,80	FM41X	1
1,20	4	1,80	MR41X	4
1,20	4	2,50	MR41X-ZZ	6
1,50	4	1,20	F681X	1
1,50	4	1,20	F681X-ZZ	3
1,50	4	1,20	681X	4
1,50	4	1,20	681X-ZZ	4
1,50	5	2	F691X	1
1,50	5	2	F691X-ZZ	3
1,50	5	2	691X	4
1,50	5	2	691X-ZZ	4
1,50	6	2,50	F601X	1
1,50	6	2,50	F601X-ZZ	3
1,50	6	2,50	601X	4
1,50	6	2,50	601X-ZZ	4
2	5	1,50	F682	1
2	5	1,50	F682-ZZ	3
2	5	1,50	682	4
2	5	1,50	682-ZZ	4
2	5	2	MF52	1
2	5	2	MF52-ZZ	3
2	5	2	MR52	4
2	5	2,50	MR52-ZZ	6
2	6	2,30	F692	1
2	6	2,30	F692-ZZ	3
2	6	2,30	692	4
2	6	2,30	692-ZZ	4
2	6	2,50	MF62	1
2	6	2,50	MF62-ZZ	3
2	6	2,50	MR62	4
2	6	2,50	MR62-ZZ	6
2	7	2,50	MF72	1
2	7	2,50	MF72-ZZ	3
2	7	2,50	MR72	4
2	7	3	MR72-ZZ	6
2	7	2,80	F602	1
2	7	2,80	F602-ZZ	3
2	7	2,80	602	4
2	7	2,80	602-ZZ	4
2,50	6	1,80	F682X	1
2,50	6	1,80	F682X-ZZ	3
2,50	6	1,80	682X	4
2,50	6	1,80	682X-ZZ	4
2,50	7	2,50	F692X	1
2,50	7	2,50	F692X-ZZ	3
2,50	7	2,50	692X	4
2,50	7	2,50	692X-ZZ	4
2,50	8	2,50	MF82X	1
2,50	8	2,50	MF82X-ZZ	3
2,50	8	2,50	MR82X	4
2,50	8	2,50	MR82X-ZZ	6

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
2,50	8	2,80	F602X	1
2,50	8	2,80	F602X-ZZ	3
2,50	8	2,80	602X	4
2,50	8	2,80	602X-ZZ	4
3	6	2	MF63	1
3	6	2	MF63-ZZ	3
3	6	2	MR63	4
3	6	2	MR63-ZZ	6
3	7	2	F683	1
3	7	2	F683-ZZ	3
3	7	2	683	4
3	7	2	683-ZZ	4
3	8	2,50	MF83	1
3	8	2,50	MF83-ZZ	3
3	8	2,50	MR83	4
3	8	3	MR83-ZZ	6
3	8	3	F693	1
3	8	3	F693-ZZ	3
3	8	3	693	4
3	8	3	693-ZZ	4
3	8	3,50	BA 3	51
3	9	2,50	MF93	1
3	9	2,50	MF93-ZZ	3
3	9	2,50	ME93	4
3	9	2,50	ME93-ZZ	4
3	9	3	F603	1
3	9	3	F603-ZZ	3
3	9	3	603	4
3	9	3	603-ZZ	4
3	10	4	F623	1
3	10	4	F623-ZZ	3
3	10	4	623	4
3	10	4	623-Z	5
3	10	4	623-ZZ	6
3	10	4	623-2RS	7
3	10	4	623-RS	8
3	13	5	633	4
3	13	5	633-ZZ	4
4	7	2	MF74	1
4	7	2	MF74-ZZ	3
4	7	2	MR74	4
4	7	2,50	MR74-ZZ	6
4	8	2	MF84	1
4	8	2	MF84-ZZ	3
4	8	2	MR84	4
4	8	3	MR84-ZZ	6
4	9	2,50	F684	1
4	9	2,50	F684-ZZ	3
4	9	2,50	618/4	4
4	9	2,50	684	4
4	9	2,50	684--ZZ	4
4	9	3,50	628/4-ZZ	6
4	9	4	638/4-ZZ	6
4	10	3	MF104	1
4	10	3	MF104-ZZ	3
4	10	3	MR104	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
4	10	4	MR104-ZZ	6
4	10	4	BA 4	51
4	11	4	F694	1
4	11	4	F694-ZZ	3
4	11	4	619/4	4
4	11	4	694	4
4	11	4	694-ZZ	4
4	11	4	619/4-ZZ	6
4	12	4	F604	1
4	12	4	F604-ZZ	3
4	12	4	604	4
4	12	4	604-Z	5
4	12	4	604-ZZ	6
4	13	4	LR 604 NPPU	31
4	13	5	F624	1
4	13	5	F624-ZZ	3
4	13	5	624	4
4	13	5	624-Z	5
4	13	5	624-ZZ	6
4	13	5	624-2RS	7
4	13	5	624-RS	8
4	16	5	F634	1
4	16	5	F634-ZZ	3
4	16	5	634	4
4	16	5	634-Z	5
4	16	5	634-ZZ	6
4	16	5	634-2RS	7
4	16	5	634-RS	8
4	16	5	634-2RZ	9
4	16	5	634-RZ	10
5	8	2	MF85	1
5	8	2	MF85-ZZ	3
5	8	2	MR85	4
5	8	2,50	MR85-ZZ	6
5	9	2,50	MF95	1
5	9	2,50	MF95-ZZ	3
5	9	2,50	MR95	4
5	9	3	MR95-ZZ	6
5	10	3	MF105	1
5	10	3	MF105-ZZ	3
5	10	3	MR105	4
5	10	4	MR105-ZZ	6
5	11	3	F685	1
5	11	3	F685-ZZ	3
5	11	3	618/5	4
5	11	3	685	4
5	11	3	685-ZZ	4
5	11	4	MR115-ZZ	6
5	11	4	628/5-ZZ	6
5	11	5	638/5-ZZ	6
5	11	-	MF115-ZZ	3
5	12	4	BA 5	51
5	13	4	F695	1
5	13	4	F695-ZZ	3
5	13	4	619/5	4
5	13	4	695	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
5	13	4	695-ZZ	4
5	13	4	619/5-ZZ	6
5	14	5	F605	1
5	14	5	F605-ZZ	3
5	14	5	605	4
5	14	5	605-ZZ	4
5	16	5	F625	1
5	16	5	F625-ZZ	3
5	16	5	625	4
5	16	5	625-Z	5
5	16	5	625-ZZ	6
5	16	5	625-2RS	7
5	16	5	625-RS	8
5	16	5	LR 605 NPPU	31
5	19	6	F635	1
5	19	6	F635-ZZ	3
5	19	6	635	4
5	19	6	635-Z	5
5	19	6	635-ZZ	6
5	19	6	635-2RS	7
5	19	6	635-RS	8
5	19	6	635-2RZ	9
5	19	6	635-RZ	10
5	19	6	135	23
6	10	2,50	MF106	1
6	10	2,50	MF106-ZZ	3
6	10	2,50	MR106	4
6	10	3	MR106-ZZ	6
6	12	3	MF126	1
6	12	3	MF126-ZZ	3
6	12	3	MR126	4
6	12	4	MR126-ZZ	6
6	13	3,50	F686-ZZ	3
6	13	3,50	686	4
6	13	3,50	618/6	4
6	13	3,50	686-ZZ	4
6	13	5	628/6-ZZ	6
6	14	5	BA 6	51
6	15	5	F696-ZZ	3
6	15	5	696	4
6	15	5	619/6	4
6	15	5	696-ZZ	4
6	15	5	619/6-ZZ	6
6	17	6	F606-ZZ	3
6	17	6	606	4
6	17	6	606-ZZ	4
6	19	6	F626-ZZ	3
6	19	6	626	4
6	19	6	626-Z	5
6	19	6	626-ZZ	6
6	19	6	626-2RS	7
6	19	6	626-RS	8
6	19	6	126	23
6	19	6	LR 606 NPPU	31
6	22	7	636	4
6	22	7	636-ZZ	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
7	11	2,50	MF117	1
7	11	2,50	MF117-ZZ	3
7	11	2,50	MR117	4
7	11	3	MR117-ZZ	6
7	13	3	MF137	1
7	13	3	MF137-ZZ	3
7	13	3	MR137	4
7	13	4	MR137-ZZ	6
7	14	3,50	F687	1
7	14	3,50	F687-ZZ	3
7	14	3,50	618/7	4
7	14	3,50	687	4
7	14	3,50	687-ZZ	4
7	14	5	628/7-ZZ	6
7	17	5	F697	1
7	17	5	F697-ZZ	3
7	17	5	619/7	4
7	17	5	697	4
7	17	5	697-ZZ	4
7	17	5	619/7-ZZ	6
7	17	6	BA 7	51
7	19	6	F607	1
7	19	6	F607-ZZ	3
7	19	6	607	4
7	19	6	607-Z	5
7	19	6	607-ZZ	6
7	19	6	607-2RS	7
7	19	6	607-RS	8
7	22	6	LR 607 NPPU	31
7	22	7	F627	1
7	22	7	F627-ZZ	3
7	22	7	627	4
7	22	7	627-Z	5
7	22	7	627-ZZ	6
7	22	7	627-2RS	7
7	22	7	627-RS	8
7	22	7	127	23
8	12	2,50	MF128	1
8	12	2,50	MF128-ZZ	3
8	12	2,50	MR128	4
8	12	3,50	MR128-ZZ	6
8	14	3,50	MF148	1
8	14	3,50	MF148-ZZ	3
8	14	3,50	MR148	4
8	14	4	MR148-ZZ	6
8	16	4	F688	1
8	16	4	F688-ZZ	3
8	16	4	618/8	4
8	16	4	688	4
8	16	4	688-ZZ	4
8	16	5	628/8-ZZ	6
8	16	5	628/8-2RS	7
8	16	6	638/8-ZZ	6
8	19	6	F698	1
8	19	6	F698-ZZ	3
8	19	6	619/8	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
8	19	6	698	4
8	19	6	698-ZZ	4
8	19	6	619/8-ZZ	6
8	19	6	619/8-2RS	7
8	19	7	BA 8	51
8	22	7	F608	1
8	22	7	F608-ZZ	3
8	22	7	608	4
8	22	7	608-Z	5
8	22	7	608-ZZ	6
8	22	7	608-2RS	7
8	22	7	608-RS	8
8	22	7	108	23
8	22	11	630/8-2RS	7
8	24	7	LR 608 NPPU	31
8	24	8	628	4
8	24	8	628-Z	5
8	24	8	628-ZZ	6
8	24	8	628-2RS	7
8	24	8	628-RS	8
8	24	8	628-2RZ	9
8	24	8	628-RZ	10
8	28	9	638	4
8	28	9	638-ZZ	4
8	28	9	638-2RZ	9
8	28	9	638-RZ	10
9	17	4	F689	1
9	17	4	F689-ZZ	3
9	17	4	618/9	4
9	17	4	689	4
9	17	4	689-ZZ	4
9	17	5	628/9-Z	5
9	17	5	628/9-ZZ	6
9	17	5	628/9-2RS	7
9	20	6	F699	1
9	20	6	F699-ZZ	3
9	20	6	619/9	4
9	20	6	699	4
9	20	6	699-ZZ	4
9	20	6	619/9-ZZ	6
9	20	7	BA 9	51
9	24	7	609	4
9	24	7	609-Z	5
9	24	7	609-ZZ	6
9	24	7	609-2RS	7
9	24	7	609-RS	8
9	26	8	629	4
9	26	8	629-Z	5
9	26	8	629-ZZ	6
9	26	8	629-2RS	7
9	26	8	629-RS	8
9	26	8	129	23
10	15	3	F6700	1
10	15	3	61700	4
10	15	4	F6700-ZZ	3
10	15	4	61700-ZZ	6

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
10	19	5	F6800	1
10	19	5	F6800-ZZ	3
10	19	5	61800	4
10	19	5	61800-ZZ	6
10	19	5	61800-2RS	7
10	19	7	F63800	1
10	19	7	F63800-ZZ	3
10	19	7	63800	4
10	19	7	613800	4
10	19	7	613800-ZZ	4
10	19	7	63800-ZZ	6
10	22	6	F6900	1
10	22	6	F6900-ZZ	3
10	22	6	61900	4
10	22	6	61900-ZZ	6
10	22	6	61900-2RS	7
10	24	9	51100	51
10	26	8	6000	4
10	26	8	6000-Z	5
10	26	8	6000-ZZ	6
10	26	8	6000-2RS	7
10	26	8	6000-RS	8
10	26	11	51200	51
10	26	12	63000-2RS	7
10	28	8	16100	4
10	28	8	16100-ZZ	6
10	28	8	LR 6000 NPPU	31
10	30	9	6200	4
10	30	9	6200-Z	5
10	30	9	6200-ZZ	6
10	30	9	6200-2RS	7
10	30	9	6200-RS	8
10	30	9	6200 N	11
10	30	9	6200 NR	12
10	30	9	6200-ZNR	13
10	30	9	6200-ZZNR	14
10	30	9	6200 2RS BOMB	16
10	30	9	7200 B	17
10	30	9	1200 TN9	23
10	30	14	62200-2RS	7
10	30	14	4200 ATN9	15
10	30	14	3200 ATN9	18
10	30	14	3200-ZZ	20
10	30	14	3200-2RS	21
10	30	14	2200 TN9	23
10	30	14	2200-2RSTN9	25
10	32	9	LR 200 NPP	30
10	32	9	LR 200 NPPU	31
10	32	14	LR 5200 KDD	28
10	32	14	LR 5200 KDDU	29
10	32	22	52202	54
10	35	11	6300	4
10	35	11	6300-Z	5
10	35	11	6300-ZZ	6
10	35	11	6300-2RS	7
10	35	11	6300-RS	8

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
10	35	17	62300-2RS	7
12	18	4	F6701	1
12	18	4	F6701-ZZ	3
12	18	4	61701	4
12	18	4	61701-ZZ	6
12	21	5	F6801	1
12	21	5	F6801-ZZ	3
12	21	5	61801	4
12	21	5	61801-ZZ	6
12	21	5	61801-2RS	7
12	21	7	F63801	1
12	21	7	F63801-ZZ	3
12	21	7	63801	4
12	21	7	613801	4
12	21	7	613801-ZZ	4
12	21	7	63801-ZZ	6
12	24	6	F6901	1
12	24	6	F6901-ZZ	3
12	24	6	61901	4
12	24	6	61901-ZZ	6
12	24	6	61901-2RS	7
12	26	9	51101	51
12	26	89,50	WB1226090	60
12	26	94,50	WB1226095	60
12	26	103,50	WB1226104	60
12	26	105,50	WB1226108	60
12	28	8	6001	4
12	28	8	6001-Z	5
12	28	8	6001-ZZ	6
12	28	8	6001-2RS	7
12	28	8	6001-RS	8
12	28	11	51201	51
12	28	12	63001-2RS	7
12	28	13	53201	52
12	30	8	16101	4
12	30	8	16101-ZZ	6
12	30	8	16101-2RS	7
12	30	8	LR 6001 NPPU	31
12	32	10	6201	4
12	32	10	6201-Z	5
12	32	10	6201-ZZ	6
12	32	10	6201-2RS	7
12	32	10	6201-RS	8
12	32	10	6201 N	11
12	32	10	6201 NR	12
12	32	10	6201-ZNR	13
12	32	10	6201-ZZNR	14
12	32	10	6201 2RS BOMB	16
12	32	10	7201 B	17
12	32	10	1201 TN9	23
12	32	14	62201-2RS	7
12	32	14	4201 ATN9	15
12	32	14	2201 TN9	23
12	32	14	2201-2RSTN9	25
12	32	15,90	3201 ATN9	18
12	32	15,90	3201-ZZ	20

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
12	32	15,90	3201-2RS	21
12	35	10	LR 201 NPP	30
12	35	10	LR 201 NPPU	31
12	35	15,90	LR 5201 KDD	28
12	35	15,90	LR 5201 KDDU	29
12	37	12	6301	4
12	37	12	6301-Z	5
12	37	12	6301-ZZ	6
12	37	12	6301-2RS	7
12	37	12	6301-RS	8
12	37	12	7301 B	17
12	37	12	1301	23
12	37	17	62301-2RS	7
12	37	17	4301 ATN9	15
12	37	17	2301	23
15	21	4	F6702	1
15	21	4	F6702-ZZ	3
15	21	4	61702	4
15	21	4	61702-ZZ	6
15	24	5	F6802	1
15	24	5	F6802-ZZ	3
15	24	5	61802	4
15	24	5	61802-ZZ	6
15	24	5	61802-2RS	7
15	24	7	F63802	1
15	24	7	F63802-ZZ	3
15	24	7	63802	4
15	24	7	613802	4
15	24	7	613802-ZZ	4
15	24	7	63802-ZZ	6
15	28	7	F6902	1
15	28	7	F6902-ZZ	3
15	28	7	61902	4
15	28	7	61902-ZZ	6
15	28	7	61902-2RS	7
15	28	7	61902-2RZ	9
15	28	9	51102	51
15	32	8	16002	4
15	32	8	16002-Z	5
15	32	8	16002-ZZ	6
15	32	9	6002	4
15	32	9	6002-Z	5
15	32	9	6002-ZZ	6
15	32	9	6002-2RS	7
15	32	9	6002-RS	8
15	32	12	51202	51
15	32	13	63002-2RS	7
15	32	15	53202	52
15	35	9	LR 6002 NPPU	31
15	35	11	6202	4
15	35	11	6202-Z	5
15	35	11	6202-ZZ	6
15	35	11	6202-2RS	7
15	35	11	6202-RS	8
15	35	11	6202 N	11
15	35	11	6202 NR	12

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
15	35	11	6202-ZNR	13
15	35	11	6202-ZZNR	14
15	35	11	6202 2RS BOMB	16
15	35	11	7202 B	17
15	35	11	QJ 202 N2 M	22
15	35	11	1202 TN9	23
15	35	11	NU 202	32
15	35	11	NJ 202	33
15	35	14	62202-2RS	7
15	35	14	4202 ATN9	15
15	35	14	2202 TN9	23
15	35	14	2202-2RSTN9	25
15	35	15,90	3202 ATN9	18
15	35	15,90	3202-ZZ	20
15	35	15,90	3202-2RS	21
15	37	9	98202	4
15	40	11	LR 202 NPP	30
15	40	11	LR 202 NPPU	31
15	40	15,90	LR 5202 KDD	28
15	40	15,90	LR 5202 KDDU	29
15	40	26	52204	54
15	42	13	6302	4
15	42	13	6302-Z	5
15	42	13	6302-ZZ	6
15	42	13	6302-2RS	7
15	42	13	6302-RS	8
15	42	13	7302 B	17
15	42	13	1302 TN9	23
15	42	14	30302	43
15	42	17	62302-2RS	7
15	42	17	4302 ATN9	15
15	42	17	2302	23
15	42	17	2302-2RSTN9	25
15	42	19	3302 ATN9	18
15	42	19	3302-ZZ	20
15	42	19	3302-2RS	21
15,918	30	73,40	WB1630073	60
15,918	30	82,60	WB1630083	60
15,918	30	101,20	WB1630101	60
15,918	30	103,20	WB1630103	60
15,918	30	105,20	WB1630105	60
15,918	30	108,70	WB1630109	60
15,918	30	110,50	WB1630111	60
15,918	30	111,50	WB1630112	60
15,918	30	111,80	WB1630112K	60
15,918	30	113,10	WB1630113	60
15,918	30	114,30	WB1630114	60
15,918	30	119,10	WB1630119	60
15,918	30	119,90	WB1630120	60
15,918	30	120,60	WB1630121	60
15,918	30	121,60	WB1630122	60
15,918	30	122,20	WB1630122K	60
15,918	30	123,40	WB1630123	60
15,918	30	125,00	WB1630125	60
15,918	30	127,80	WB1630128	60
15,918	30	127,80	WB1630128K	60

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
15,918	30	132,10	WB1630132	60
15,918	30	133,10	WB1630133	60
15,918	30	134	WB1630134	60
15,918	30	135,30	WB1630135	60
15,918	30	135,70	EN1630138	60
15,918	30	136,40	WB1630136	60
15,918	30	138,10	WB1630138	60
15,918	30	142	WB1630142	60
15,918	30	142,90	WB1630143	60
15,918	30	146,20	WB1630146	60
15,918	30	154	WB1630154	60
15,918	30	159,50	WB1630160	60
15,918	30	160	WB1630150	60
15,918	30	161,90	WB1630162	60
15,918	30	193,30	WB1630139	60
17	23	4	F6703	1
17	23	4	F6703-ZZ	3
17	23	4	61703	4
17	23	4	61703-ZZ	6
17	26	5	F6803	1
17	26	5	F6803-ZZ	3
17	26	5	61803	4
17	26	5	61803-ZZ	6
17	26	5	61803-2RS	7
17	26	5	61803-2RZ	9
17	26	7	F63803	1
17	26	7	F63803-ZZ	3
17	26	7	63803	4
17	26	7	613803	4
17	26	7	613803-ZZ	4
17	26	7	63803-ZZ	6
17	30	7	F6903	1
17	30	7	F6903-ZZ	3
17	30	7	61903	4
17	30	7	61903-ZZ	6
17	30	7	61903-2RS	7
17	30	7	61903-RZ	10
17	30	9	51103	51
17	35	8	16003	4
17	35	8	16003-ZZ	6
17	35	10	6003	4
17	35	10	6003-Z	5
17	35	10	6003-ZZ	6
17	35	10	6003-2RS	7
17	35	10	6003-RS	8
17	35	12	51203	51
17	35	14	63003-2RS	7
17	35	15	53203	52
17	40	9	98203	4
17	40	10	LR 6003 NPPU	31
17	40	12	6203	4
17	40	12	6203-Z	5
17	40	12	6203-ZZ	6
17	40	12	6203-2RS	7
17	40	12	6203-RS	8
17	40	12	6203 N	11

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
17	40	12	6203 NR	12
17	40	12	6203-ZNR	13
17	40	12	6203-ZZNR	14
17	40	12	6203 2RS BOMB	16
17	40	12	7203 B	17
17	40	12	QJ 203 N2 M	22
17	40	12	1203 TN9	23
17	40	12	NU 203	32
17	40	12	NJ 203	33
17	40	12	NUP 203	34
17	40	12	N 203	35
17	40	13,25	30203	43
17	40	16	62203-2RS	7
17	40	16	4203 ATN9	15
17	40	16	2203 TN9	23
17	40	16	2203-2RSTN9	25
17	40	16	NU 2203	32
17	40	16	NJ 2203	33
17	40	16	NUP 2203	34
17	40	17,50	3203 ATN9	18
17	40	17,50	3203-ZZ	20
17	40	17,50	3203-2RS	21
17	47	12	LR 203 NPP	30
17	47	12	LR 203 NPPU	31
17	47	14	6303	4
17	47	14	6303-Z	5
17	47	14	6303-ZZ	6
17	47	14	6303-2RS	7
17	47	14	6303-RS	8
17	47	14	6303 N	11
17	47	14	6303 NR	12
17	47	14	6303-ZNR	13
17	47	14	6303-ZZNR	14
17	47	14	7303 B	17
17	47	14	QJ 303 N2 M	22
17	47	14	1303 TN9	23
17	47	14	NU 303	32
17	47	14	NJ 303	33
17	47	14	N 303	35
17	47	15	30303	43
17	47	17,50	LR 5203 KDD	28
17	47	17,50	LR 5203 KDDU	29
17	47	19	62303-2RS	7
17	47	19	4303 ATN9	15
17	47	19	2303	23
17	47	19	2303-2RSTN9	25
17	47	20,25	32303	43
17	47	22,20	3303 ATN9	18
17	47	22,20	3303-ZZ	20
17	47	22,20	3303-2RS	21
17	62	17	6403	4
17,462	39,878	13,843	LM 11749/710	43
18,961	38,10	132,10	WB1938132	60
18,961	38,10	134,10	WB1938134	60
18,961	38,10	139,70	WB1938140	60
18,961	38,10	141,70	WB1938142	60

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
18,961	38,10	143,30	WB1938143	60
18,961	38,10	144,50	WB1938145	60
18,961	38,10	162,40	WB1938152	60
18,961	38,10	165,10	WB1938165	60
19,05	45,237	15,494	LM 11949/910	43
19,05	49,225	18,034	09067/9195	43
20	27	4	F6704	1
20	27	4	F6704-ZZ	3
20	27	4	61704	4
20	27	4	61704-ZZ	6
20	30	3,50	U 201	53
20	32	7	F6804	1
20	32	7	F6804-ZZ	3
20	32	7	61804	4
20	32	7	61804-2RS	7
20	32	7	61804-2RZ	9
20	35	10	51104	51
20	37	9	F6904	1
20	37	9	F6904-ZZ	3
20	37	9	61904	4
20	37	9	61904-2RS	7
20	37	9	61904-2RZ	9
20	40	14	51204	51
20	40	17	53204	52
20	42	8	16004	4
20	42	9	98204	4
20	42	12	6004	4
20	42	12	6004-Z	5
20	42	12	6004-ZZ	6
20	42	12	6004-2RS	7
20	42	12	6004-RS	8
20	42	12	6004 N	11
20	42	12	6004 NR	12
20	42	12	6004-ZNR	13
20	42	12	6004-ZZNR	14
20	42	15	32004	43
20	42	16	63004-2RS	7
20	42	30	SL045004-PP	39
20	47	12	LR 6004 NPPU	31
20	47	14	6204	4
20	47	14	6204-Z	5
20	47	14	6204-ZZ	6
20	47	14	6204-2RS	7
20	47	14	6204-RS	8
20	47	14	6204 N	11
20	47	14	6204 NR	12
20	47	14	6204-ZNR	13
20	47	14	6204-ZZNR	14
20	47	14	6204 2RS BOMB	16
20	47	14	7204 B	17
20	47	14	1204 TN9	23
20	47	14	1204 KTN9	24
20	47	14	NU 204	32
20	47	14	NJ 204	33
20	47	14	NUP 204	34
20	47	14	N 204	35

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
20	47	15,25	30204	43
20	47	18	62204-2RS	7
20	47	18	4204 ATN9	15
20	47	18	2204 TN9	23
20	47	18	2204-2RSTN9	25
20	47	18	NU 2204	32
20	47	18	NJ 2204	33
20	47	20,60	3204 A	18
20	47	20,60	3204 ATN9	18
20	47	20,60	3204-ZZ	20
20	47	20,60	3204-2RS	21
20	47	28	52205	54
20	47	40	11204 TN9	27
20	52	14	LR 204 NPP	30
20	52	14	LR 204 NPPU	31
20	52	15	6304	4
20	52	15	6304-Z	5
20	52	15	6304-ZZ	6
20	52	15	6304-2RS	7
20	52	15	6304-RS	8
20	52	15	6304 N	11
20	52	15	6304 NR	12
20	52	15	6304-ZNR	13
20	52	15	6304-ZZNR	14
20	52	15	7304 B	17
20	52	15	QJ 304 N2 M	22
20	52	15	1304 TN9	23
20	52	15	NU 304	32
20	52	15	NJ 304	33
20	52	15	NUP 304	34
20	52	15	N 304	35
20	52	15	21304	45
20	52	16,25	30304	43
20	52	18	22205/20	45
20	52	20,60	LR 5204 KDD	28
20	52	20,60	LR 5204 KDDU	29
20	52	21	62304-2RS	7
20	52	21	4304 ATN9	15
20	52	21	2304	23
20	52	21	2304-2RSTN9	25
20	52	21	NU 2304	32
20	52	21	NJ 2304	33
20	52	21	NUP 2304	34
20	52	21	N 2304	35
20	52	22,20	3304 A	18
20	52	22,20	3304 ATN9	18
20	52	22,20	3304-ZZ	20
20	52	22,20	3304-2RS	21
20	52	22,25	32304	43
20	52	34	52305	54
20	62	22,20	LR 5304 KDDU	29
20	70	52	52407	54
20	72	19	6404	4
21,43	45,237	15,494	LM 12748/710	43
21,43	50,005	17,526	M 12649/610	43
21,986	45,237	15,494	LM 12749/710	43

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
21,986	45,974	15,494	LM 12749/711	43
22	44	15	320/22	43
22	50	14	62/22	4
22	50	14	62/22-2RS	7
22	56	16	63/22	4
22,225	52,388	19,368	1380/1328	43
24	35	4	U 202	53
25	32	4	F6705	1
25	32	4	61705	4
25	32	4	61705-ZZ	6
25	37	7	F6805	1
25	37	7	F6805-ZZ	3
25	37	7	61805	4
25	37	7	61805-2RS	7
25	37	7	61805-2RZ	9
25	42	9	F6905	1
25	42	9	F6905-ZZ	3
25	42	9	61905	4
25	42	9	61905-2RS	7
25	42	9	61905-2RZ	9
25	42	11	51105	51
25	47	8	16005	4
25	47	12	6005	4
25	47	12	6005-Z	5
25	47	12	6005-ZZ	6
25	47	12	6005-2RS	7
25	47	12	6005-RS	8
25	47	12	6005 N	11
25	47	12	6005 NR	12
25	47	12	6005-ZNR	13
25	47	12	6005-ZZNR	14
25	47	12	NU 1005	32
25	47	15	32005	43
25	47	15	51205	51
25	47	16	63005-2RS	7
25	47	16	NN 3005 K/SP	38
25	47	16	NN 3005/SP	38
25	47	19	53205	52
25	47	30	SL045005-PP	39
25	52	9	98205	4
25	52	15	6205	4
25	52	15	6205-Z	5
25	52	15	6205-ZZ	6
25	52	15	6205-2RS	7
25	52	15	6205-RS	8
25	52	15	6205 N	11
25	52	15	6205 NR	12
25	52	15	6205-ZNR	13
25	52	15	6205-ZZNR	14
25	52	15	6205 2RS BOMB	16
25	52	15	7205 B	17
25	52	15	QJ 205 N2M	22
25	52	15	1205 TN9	23
25	52	15	1205 KTN9	24
25	52	15	NU 205	32
25	52	15	NJ 205	33

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
25	52	15	NUP 205	34
25	52	15	N 205	35
25	52	16,25	30205	43
25	52	18	62205-2RS	7
25	52	18	4205 ATN9	15
25	52	18	2205 TN9	23
25	52	18	2205 KTN9	24
25	52	18	2205-2RSTN9	25
25	52	18	2205-2RSKTN9	26
25	52	18	NU 2205	32
25	52	18	NJ 2205	33
25	52	18	NUP 2205	34
25	52	18	22205	45
25	52	18	22205 K	46
25	52	18	51305	51
25	52	19,25	32205	43
25	52	19,25	32205-A	43
25	52	20,60	3205 A	18
25	52	20,60	3205 ATN9	18
25	52	20,60	3205-ZZ	20
25	52	20,60	3205-2RS	21
25	52	22	33205	43
25	52	23	22205-2RS	47
25	52	29	52206	54
25	52	44	11205 TN9	27
25	60	24	51405	51
25	60	38	52306	54
25	60	41,30	54306	55
25	62	15	LR 205 NPP	30
25	62	15	LR 205 NPPU	31
25	62	17	6305	4
25	62	17	6305-Z	5
25	62	17	6305-ZZ	6
25	62	17	6305-2RS	7
25	62	17	6305-RS	8
25	62	17	6305-2RZ	9
25	62	17	6305-RZ	10
25	62	17	6305 N	11
25	62	17	6305 NR	12
25	62	17	6305-ZNR	13
25	62	17	6305-ZZNR	14
25	62	17	7305 B	17
25	62	17	QJ 305 N2 M	22
25	62	17	1305 TN9	23
25	62	17	1305 KTN9	24
25	62	17	NU 305	32
25	62	17	NJ 305	33
25	62	17	NUP 305	34
25	62	17	N 305	35
25	62	17	21305	45
25	62	18	30305	43
25	62	18,20	31305	43
25	62	20,60	LR 5205 KDD	28
25	62	20,60	LR 5205 KDDU	29
25	62	24	62305-2RS	7
25	62	24	4305 ATN9	15

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
25	62	24	2305	23
25	62	24	2035M	23
25	62	24	2305-2RSTN9	25
25	62	24	NU 2305	32
25	62	24	NJ 2305	33
25	62	24	NUP 2305	34
25	62	25,25	32305	43
25	62	25,40	3305 A	18
25	62	25,40	3305 ATN9	18
25	62	25,40	3305-ZZ	20
25	62	25,40	3305-2RS	21
25	62	36,50	31305J/DF	44
25	72	25,40	LR 5305 KDDU	29
25	80	21	6405	4
25	80	59	52406	54
25,40	50,292	14,224	L 44643/610	43
25,40	50,80	15,011	07100 5/7210 X	43
25,40	57,15	17,462	15578/15520	43
25,40	62	19,05	15101/15245	43
26	38	4	U 203	53
26,157	61,912	19,05	15103 5/15243	43
26,988	50,292	14,224	L 44649/610	43
28	52	16	320/28	43
28	58	16	62/28	4
28	58	17,50	302/28	43
28	58	20,25	322/28	43
28	68	18	63/28	4
28	68	20	303/28	43
28	68	25,80	323/28	43
28,575	57,15	19,845	1985/1922	43
28,575	57,15	19,845	1988/1922	43
28,575	73,025	22,225	02872/2820	43
29	50,292	14,224	L 45449/410	43
30	37	4	F6706	1
30	37	4	61706	4
30	37	4	61706-ZZ	6
30	42	5	U 204	53
30	42	7	F6806	1
30	42	7	F6806-ZZ	3
30	42	7	61806	4
30	42	7	61806-2RS	7
30	42	7	61806-2RZ	9
30	47	9	F6906	1
30	47	9	F6906-ZZ	3
30	47	9	61906-2RS	7
30	47	9	61906-2RZ	9
30	47	11	51106	51
30	52	16	51206	51
30	52	20	53206	52
30	55	9	16006	4
30	55	13	6006	4
30	55	13	6006-Z	5
30	55	13	6006-ZZ	6
30	55	13	6006-2RS	7
30	55	13	6006-RS	8
30	55	13	6006-2RZ	9

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
30	55	13	6006-RZ	10
30	55	13	6006 N	11
30	55	13	6006 NR	12
30	55	13	NU 1006	32
30	55	17	32006	43
30	55	19	63006-2RS	7
30	55	19	NN 3006 KTN/SP	38
30	55	19	NN 3006 TN/SP	38
30	55	34	SL045006-PP	39
30	60	21	51306	51
30	60	25	53306	52
30	62	10	98206	4
30	62	16	6206	4
30	62	16	6206-Z	5
30	62	16	6206-ZZ	6
30	62	16	6206-2RS	7
30	62	16	6206-RS	8
30	62	16	6206-2RZ	9
30	62	16	6206-RZ	10
30	62	16	6206 N	11
30	62	16	6206 NR	12
30	62	16	6206-ZNR	13
30	62	16	6206-ZZNR	14
30	62	16	6206 2RS BOMB	16
30	62	16	7206 B	17
30	62	16	QJ 206 N2 M	22
30	62	16	1206 TN9	23
30	62	16	1206 KTN9	24
30	62	16	NU 206	32
30	62	16	NJ 206	33
30	62	16	NUP 206	34
30	62	16	N 206	35
30	62	17,25	30206	43
30	62	20	62206-2RS	7
30	62	20	4206 ATN9	15
30	62	20	2206 TN9	23
30	62	20	2206 KTN9	24
30	62	20	2206-2RSTN9	25
30	62	20	2206-2RSKTN9	26
30	62	20	NU 2206	32
30	62	20	NJ 2206	33
30	62	20	NUP 2206	34
30	62	20	22206	45
30	62	20	22206 K	46
30	62	21,25	32206	43
30	62	23,80	3206 A	18
30	62	23,80	3206 ATN9	18
30	62	23,80	3206-ZZ	20
30	62	23,80	3206-2RS	21
30	62	25	33206	43
30	62	25	22206-2RS	47
30	62	34	52207	54
30	62	37,70	54207	55
30	62	48	11206 TN9	27
30	68	36	52208	54
30	68	44	54208	55

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
30	68	47	52307	54
30	70	28	54307	55
30	72	16	LR 206 NPP	30
30	72	16	51406	51
30	72	19	6306	4
30	72	19	6306-Z	5
30	72	19	6306-ZZ	6
30	72	19	6306-2RS	7
30	72	19	6306-RS	8
30	72	19	6306-2RZ	9
30	72	19	6306-RZ	10
30	72	19	6306 N	11
30	72	19	6306 NR	12
30	72	19	6306-ZNR	13
30	72	19	6306-ZZNR	14
30	72	19	7306 B	17
30	72	19	QJ 306 N2M	22
30	72	19	1306 TN9	23
30	72	19	1306 KTN9	24
30	72	19	LR 206 NPPU	31
30	72	19	NU 306	32
30	72	19	NJ 306	33
30	72	19	NUP 306	34
30	72	19	N 306	35
30	72	19	21306	45
30	72	19	21306 K	46
30	72	20,75	30306	43
30	72	20,75	31306	43
30	72	23,80	LR 5206 KDD	28
30	72	23,80	LR 5206 KDDU	29
30	72	27	62306-2RS	7
30	72	27	4306 ATN9	15
30	72	27	2306	23
30	72	27	2306 K	24
30	72	27	2306-2RSTN9	25
30	72	27	NU 2306	32
30	72	27	NJ 2306	33
30	72	27	NUP 2306	34
30	72	27	N 2306	35
30	72	28,75	32306	43
30	72	30,20	3306 A	18
30	72	30,20	3306 ATN9	18
30	72	30,20	3306-ZZ	20
30	72	30,20	3306-2RS	21
30	72	41,50	31306J/DF	44
30	78	49	52308	54
30	78	59	54308	55
30	80	30,20	LR 5306 KDDU	29
30	90	23	6406	4
30	90	23	NU 406	32
30	90	23	NJ 406	33
30	90	65	52408	54
31,20	6,50		HJ 304	36
31,75	59,131	15,875	LM 67048/10	43
31,75	61,912	19,05	15123/15243	43
31,75	62	19,05	15123/15245	43

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
31,75	73,025	29,37	HM 88542/510	43
32	58	17	320/32	43
33,338	69,012	19,845	14131/14276	43
34,70	6		HJ 205	36
34,70	6,50		HJ 2205	36
34,925	65,088	18,034	LM 48548/510	43
34,925	69,012	19,845	14137 A/14276	43
34,925	76,20	29,37	31594/31520	43
34,988	59,131	15,875	L 68149/110	43
34,988	59,974	15,875	L68149/111	43
35	44	5	61707	4
35	44	5	61707-ZZ	6
35	47	7	61807	4
35	47	7	61807-2RS	7
35	47	7	61807-2RZ	9
35	52	12	51107	51
35	55	10	61907	4
35	55	10	61907-2RS	7
35	55	10	61907-2RZ	9
35	62	9	16007	4
35	62	14	6007	4
35	62	14	6007-Z	5
35	62	14	6007-ZZ	6
35	62	14	6007-2RS	7
35	62	14	6007-RS	8
35	62	14	6007-2RZ	9
35	62	14	6007-RZ	10
35	62	14	6007 N	11
35	62	14	6007 NR	12
35	62	14	NU 1007	32
35	62	18	32007	43
35	62	18	51207	51
35	62	20	63007-2RS	7
35	62	20	NN 3007 K/SP	38
35	62	20	NN 3007/SP	38
35	62	22	53207	52
35	62	36	SL045007-PP	39
35	68	24	51307	51
35	68	28	53307	52
35	72	17	6207	4
35	72	17	6207-Z	5
35	72	17	6207-ZZ	6
35	72	17	6207-2RS	7
35	72	17	6207-RS	8
35	72	17	6207 N	11
35	72	17	6207 NR	12
35	72	17	6207-ZNR	13
35	72	17	6207-ZZNR	14
35	72	17	6207 2RS BOMB	16
35	72	17	7207 B	17
35	72	17	QJ 207 N2M	22
35	72	17	1207 TN9	23
35	72	17	1207 KTN9	24
35	72	17	NU 207	32
35	72	17	NJ 207	33
35	72	17	NUP 207	34

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
35	72	17	N 207	35
35	72	18,20	30207	43
35	72	23	62207-2RS	7
35	72	23	4207 ATN9	15
35	72	23	2207 TN9	23
35	72	23	2207TN9	23
35	72	23	2207 KTN9	24
35	72	23	2207-2RSTN9	25
35	72	23	2207-2RSKTN9	26
35	72	23	NU 2207	32
35	72	23	NJ 2207	33
35	72	23	NUP 2207	34
35	72	23	22207	45
35	72	23	22207 K	46
35	72	24,25	32207	43
35	72	27	3207 A	18
35	72	27	3207 ATN9	18
35	72	27	3207-ZZ	20
35	72	27	3207-2RS	21
35	72	28	33207	43
35	72	28	22207-2RS	47
35	72	52	11207 TN9	27
35	73	37	52209	54
35	73	45	54209	55
35	80	17	LR 207 NPP	30
35	80	17	LR 207 NPPU	31
35	80	21	6307	4
35	80	21	6307-Z	5
35	80	21	6307-ZZ	6
35	80	21	6307-2RS	7
35	80	21	6307-RS	8
35	80	21	6307 N	11
35	80	21	6307 NR	12
35	80	21	6307-ZNR	13
35	80	21	6307-ZZNR	14
35	80	21	7307 B	17
35	80	21	QJ 307 N2M	22
35	80	21	1307 TN9	23
35	80	21	1307 KTN9	24
35	80	21	NU 307	32
35	80	21	NJ 307	33
35	80	21	NUP 307	34
35	80	21	N 307	35
35	80	21	21307	45
35	80	21	21307 K	46
35	80	22,75	30307	43
35	80	22,75	31307	43
35	80	27	LR 5207 KDD	28
35	80	27	LR 5207 KDDU	29
35	80	31	62307-2RS	7
35	80	31	4307 ATN9	15
35	80	31	2307 TN9	23
35	80	31	2307 KTN9	24
35	80	31	2307-2RSTN9	25
35	80	31	NU 2307	32
35	80	31	NJ 2307	33

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
35	80	31	NUP 2307	34
35	80	32	51407	51
35	80	32,75	32307	43
35	80	34,90	3307 A	18
35	80	34,90	3307 ATN9	18
35	80	34,90	3307-ZZ	20
35	80	34,90	3307-2RS	21
35	80	45,50	31307 J/DF	44
35	85	52	52309	54
35	85	62	54309	55
35	90	34,90	LR 5307 KDDU	29
35	100	25	6407	4
35	100	25	6407 N	11
35	100	25	6407 NR	12
35	100	25	NU 407	32
35	100	25	NJ 407	33
35	100	72	52409	54
35	100	86	54409	55
36	50	5,50	U 205	53
36,487	73,025	23,812	25880/25820	43
38,10	7		HJ 305	36
38,10	8		HJ 2305	36
38,10	65,09	18,03	LM 29748/710	43
38,10	65,09	18,03	LM 29749/710	43
38,10	65,09	19,81	LM 29749/711	43
38,10	72,24	20,64	16150/16284	43
38,10	72,24	23,81	16150/16283	43
38,10	88,50	26,99	418/414	43
39,688	73,025	25,654	M 201047/11	43
40	50	6	61708	4
40	50	6	61708-ZZ	6
40	52	7	61808-2RS	7
40	52	7	61808-2RZ	9
40	60	13	51108	51
40	62	7	61808	4
40	62	12	61908	4
40	62	12	61908-2RS	7
40	62	12	61908-2RZ	9
40	68	9	16008	4
40	68	15	6008	4
40	68	15	6008-Z	5
40	68	15	6008-ZZ	6
40	68	15	6008-2RS	7
40	68	15	6008-RS	8
40	68	15	6008-2RZ	9
40	68	15	6008-RZ	10
40	68	15	6008 N	11
40	68	15	6008 NR	12
40	68	15	NU 1008	32
40	68	19	32008	43
40	68	19	51208	51
40	68	21	63008-2RS	7
40	68	21	NN 3008 KTN/SP	38
40	68	21	NN 3008 TN/SP	38
40	68	23	53208	52
40	68	38	SL045008-PP	39

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
40	75	26	33108	43
40	78	26	51308	51
40	78	31	53308	52
40	79	39	52210	54
40	80	18	6208	4
40	80	18	6208-Z	5
40	80	18	6208-ZZ	6
40	80	18	6208-2RS	7
40	80	18	6208-RS	8
40	80	18	6208-2RZ	9
40	80	18	6208-RZ	10
40	80	18	6208 N	11
40	80	18	6208 NR	12
40	80	18	6208-ZNR	13
40	80	18	6208-ZZNR	14
40	80	18	6208 2RS BOMB	16
40	80	18	7208 B	17
40	80	18	QJ 208 N2M	22
40	80	18	1208 TN9	23
40	80	18	1208 KTN9	24
40	80	18	NU 208	32
40	80	18	NJ 208	33
40	80	18	NUP 208	34
40	80	18	N 208	35
40	80	19,75	30208	43
40	80	23	62208-2RS	7
40	80	23	4208 ATN9	15
40	80	23	2208 TN9	23
40	80	23	2208 KTN9	24
40	80	23	2208-2RSTN9	25
40	80	23	2208-2RSKTN9	26
40	80	23	NU 2208	32
40	80	23	NJ 2208	33
40	80	23	NUP 2208	34
40	80	23	22208	45
40	80	23	22208 K	46
40	80	24,75	32208	43
40	80	28	22208-2RS	47
40	80	28	22208-2RSK	48
40	80	30,20	3208 A	18
40	80	30,20	3208 ATN9	18
40	80	30,20	3208-ZZ	20
40	80	30,20	3208-2RS	21
40	80	32	33208	43
40	80	56	11208 TN9	27
40	85	18	LR 208 NPP	30
40	85	18	LR 208 NPPU	31
40	85	30,20	LR 5208 KDD	28
40	85	30,20	LR 5208 KDDU	29
40	90	23	6308	4
40	90	23	6308-Z	5
40	90	23	6308-ZZ	6
40	90	23	6308-2RS	7
40	90	23	6308-RS	8
40	90	23	6308-2RZ	9
40	90	23	6308-RZ	10

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
40	90	23	6308 N	11
40	90	23	6308 NR	12
40	90	23	6308-ZNR	13
40	90	23	6308-ZZNR	14
40	90	23	7308 B	17
40	90	23	QJ 308 N2M	22
40	90	23	1308 TN9	23
40	90	23	1308 KTN9	24
40	90	23	NU 308	32
40	90	23	NJ 308	33
40	90	23	NUP 308	34
40	90	23	N 308	35
40	90	23	21308	45
40	90	23	21308 K	46
40	90	25,25	30308	43
40	90	25,25	31308	43
40	90	33	62308-2RS	7
40	90	33	4308 ATN9	15
40	90	33	2308 TN9	23
40	90	33	2308 KTN9	24
40	90	33	2308-2RSTN9	25
40	90	33	NU 2308	32
40	90	33	NJ 2308	33
40	90	33	NUP 2308	34
40	90	33	22308	45
40	90	33	22308 K	46
40	90	33	22308 VA	49
40	90	35,25	32308	43
40	90	36	51408	51
40	90	36,50	3308 A	18
40	90	36,50	3308 ATN9	18
40	90	36,50	3308 D	19
40	90	36,50	3308 DTN9	19
40	90	36,50	3308-ZZ	20
40	90	36,50	3308-2RS	21
40	90	38	22308-2RS	47
40	90	42	53408	52
40	90	50,50	31308J/DF	44
40	95	58	52310	54
40	95	70	54310	55
40	100	36,50	LR 5308 KDDU	29
40	100	92	54410	55
40	110	27	6408	4
40	110	27	6408 N	11
40	110	27	6408 NR	12
40	110	27	NU 408	32
40	110	27	NJ 408	33
40,988	67,75	17,50	LM 300849/811	43
41,20	7		HJ 206	36
41,275	73,025	16,667	18590/18520	43
41,275	73,431	19,558	LM 501349/310	43
41,275	73,431	21,43	LM 501349/314	43
41,275	76,20	18,009	11162/11300	43
41,275	76,20	18,009	11163/11300	43
41,275	76,20	22,225	24780/24720	43
41,275	87,312	30,162	3585/3525	43

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
41,275	88,90	30,162	HM 803146/110	43
41,275	101,60	34,925	526/52210	43
42	55	5,50	U 206	53
44,45	82,931	23,812	25580/25520	43
44,45	82,931	26,988	25580/25523	43
44,45	83,058	23,876	25580/25522	43
44,45	88,90	30,162	HM 803149/110	43
44,45	95,25	30,958	53178/53377	43
45	8,50		HJ 306	36
45	55	6	61709	4
45	55	6	61709-ZZ	6
45	58	7	61809	4
45	58	7	61809-2RS	7
45	58	7	61809-2RZ	9
45	62	7	U 306	53
45	62	7	U 306	56
45	65	14	51109	51
45	68	12	61909	4
45	68	12	61909-2RS	7
45	68	12	61909-2RZ	9
45	73	20	51209	51
45	73	24	53209	52
45	75	10	16009	4
45	75	16	6009	4
45	75	16	6009-Z	5
45	75	16	6009-ZZ	6
45	75	16	6009-2RS	7
45	75	16	6009-RS	8
45	75	16	6009 N	11
45	75	16	6009 NR	12
45	75	16	NU 1009	32
45	75	20,90	32009	43
45	75	23	NN 3009 KTN/SP	38
45	75	23	NN 3009 TN/SP	38
45	75	40	SL045009-PP	39
45	80	26	33109	43
45	85	19	6209	4
45	85	19	6209-Z	5
45	85	19	6209-ZZ	6
45	85	19	6209-2RS	7
45	85	19	6209-RS	8
45	85	19	6209 N	11
45	85	19	6209 NR	12
45	85	19	6209-ZNR	13
45	85	19	6209-ZZNR	14
45	85	19	6209 2RS BOMB	16
45	85	19	7209 B	17
45	85	19	QJ 209 N2M	22
45	85	19	1209 TN9	23
45	85	19	1209 KTN9	24
45	85	19	NU 209	32
45	85	19	NJ 209	33
45	85	19	NUP 209	34
45	85	19	N 209	35
45	85	20,75	30209	43
45	85	23	62209-2RS	7

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
45	85	23	4209 ATN9	15
45	85	23	2209 TN9	23
45	85	23	2209 KTN9	24
45	85	23	2209-2RSTN9	25
45	85	23	2209-2RSKTN9	26
45	85	23	NU 2209	32
45	85	23	NJ 2209	33
45	85	23	NUP 2209	34
45	85	23	22209	45
45	85	23	22209 K	46
45	85	24,75	32209	43
45	85	28	22209-2RS	47
45	85	28	22209-2RSK	48
45	85	28	51309	51
45	85	30,20	3209 A	18
45	85	30,20	3209 ATN9	18
45	85	30,20	3209-ZZ	20
45	85	30,20	3209-2RS	21
45	85	32	33209	43
45	85	33	53309	52
45	85	58	11209 TN9	27
45	90	19	LR 209 NPP	30
45	90	19	LR 209 NPPU	31
45	90	45	52211	54
45	90	55	54211	55
45	100	25	6309	4
45	100	25	6309-Z	5
45	100	25	6309-ZZ	6
45	100	25	6309-2RS	7
45	100	25	6309-RS	8
45	100	25	6309 N	11
45	100	25	6309 NR	12
45	100	25	6309-ZNR	13
45	100	25	6309-ZZNR	14
45	100	25	7309 B	17
45	100	25	QJ 309 N2M	22
45	100	25	1309 TN9	23
45	100	25	1309 KTN9	24
45	100	25	NU 309	32
45	100	25	NJ 309	33
45	100	25	NUP 309	34
45	100	25	N 309	35
45	100	25	21309	45
45	100	25	21309 K	46
45	100	27,25	30309	43
45	100	27,25	31309	43
45	100	36	62309-2RS	7
45	100	36	4309 ATN9	15
45	100	36	2309 TN9	23
45	100	36	2309 KTN9	24
45	100	36	2309-2RSTN9	25
45	100	36	NU 2309	32
45	100	36	NJ 2309	33
45	100	36	NUP 2309	34
45	100	36	22309	45
45	100	36	22309 K	46

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
45	100	36	22309 VA	49
45	100	38,25	32309	43
45	100	39	51409	51
45	100	39,70	3309 A	18
45	100	39,70	3309 ATN9	18
45	100	39,70	3309 D	19
45	100	39,70	3309-ZZ	20
45	100	39,70	3309-2RS	21
45	100	54,50	31309 J/CDF	44
45	105	64	52311	54
45	120	29	6409	4
45	120	29	6409 N	11
45	120	29	6409 NR	12
45	120	29	NU 409	32
45	120	29	NJ 409	33
45	120	87	52411	54
45	75	23	63009-2RS	7
45,237	87,313	30,162	3586/3525	43
45,242	73,431	19,558	LM 102949/910	43
45,242	77,788	19,842	LM 603049/011	43
45,618	82,931	23,812	25590/25520	43
45,618	82,931	26,988	25590/25523	43
45,618	83,058	23,876	25590/25522	43
46,038	79,375	17,462	18690/18620	43
47,625	101,60	34,925	528 R/522	43
48	65	7	U 207	56
48	65	7,50	U 207	53
48,10	7		HJ 207	36
50	65	7	61810	4
50	65	7	61810-2RS	7
50	65	7	61810-2RZ	9
50	70	14	51110	51
50	72	7	U 208	53
50	72	12	61910	4
50	72	12	61910-2RS	7
50	72	12	61910-2RZ	9
50	72	28	234910	57
50	78	22	51210	51
50	78	26	53210	52
50	80	10	16010	4
50	80	16	6010	4
50	80	16	6010-Z	5
50	80	16	6010-ZZ	6
50	80	16	6010-2RS	7
50	80	16	6010-RS	8
50	80	16	6010-2RZ	9
50	80	16	6010-RZ	10
50	80	16	6010 N	11
50	80	16	6010 NR	12
50	80	16	NU 1010	32
50	80	20	32010	43
50	80	23	63010-2RS	7
50	80	23	NN 3010 KTN/SP	38
50	80	23	NN 3010 TN/SP	38
50	80	24	33010	43
50	80	38	234410	57

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
50	80	40	SL0450010-PP	39
50	85	26	33110	43
50	90	11	98210	4
50	90	20	6210	4
50	90	20	6210-Z	5
50	90	20	6210-ZZ	6
50	90	20	6210-2RS	7
50	90	20	6210-RS	8
50	90	20	6210-2RZ	9
50	90	20	6210-RZ	10
50	90	20	6210 N	11
50	90	20	6210 NR	12
50	90	20	6210-ZNR	13
50	90	20	6210-ZZNR	14
50	90	20	6210 2RS BOMB	16
50	90	20	7210 B	17
50	90	20	QJ 210 N2 M	22
50	90	20	1210 TN9	23
50	90	20	1210 KTN9	24
50	90	20	NU 210	32
50	90	20	NJ 210	33
50	90	20	NUP 210	34
50	90	20	N 210	35
50	90	21,75	30210	43
50	90	23	62210-2RS	7
50	90	23	4210 ATN9	15
50	90	23	2210 TN9	23
50	90	23	2210 KTN9	24
50	90	23	2210-2RSTN9	25
50	90	23	2210-2RSKTN9	26
50	90	23	NU 2210	32
50	90	23	NJ 2210	33
50	90	23	NUP 2210	34
50	90	23	22210	45
50	90	23	22210 K	46
50	90	24,75	32210	43
50	90	28	22210-2RS	47
50	90	28	22210-2RSK	48
50	90	30,20	3210 A	18
50	90	30,20	3210 ATN9	18
50	90	30,20	3210-ZZ	20
50	90	30,20	3210-2RS	21
50	90	32	33210	43
50	90	43,50	30210 J/DF	44
50	90	58	11210 TN9	27
50	95	31	51310	51
50	95	37	53310	52
50	95	46	52212	54
50	110	27	6310	4
50	110	27	6310-Z	5
50	110	27	6310-ZZ	6
50	110	27	6310-2RS	7
50	110	27	6310-RS	8
50	110	27	6310 N	11
50	110	27	6310 NR	12
50	110	27	6310-ZNR	13

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
50	110	27	6310-ZZNR	14
50	110	27	7310 B	17
50	110	27	QJ 310 N2M	22
50	110	27	1310 TN9	23
50	110	27	1310 KTN9	24
50	110	27	NU 310	32
50	110	27	NJ 310	33
50	110	27	NUP 310	34
50	110	27	N 310	35
50	110	27	21310	45
50	110	27	21310 K	46
50	110	29	30310	43
50	110	29,25	31310	43
50	110	40	62310-2RS	7
50	110	40	4310 ATN9	15
50	110	40	2310	23
50	110	40	2310 K	24
50	110	40	2310-2RSTN9	25
50	110	40	NU 2310	32
50	110	40	NJ 2310	33
50	110	40	NUP 2310	34
50	110	40	22310	45
50	110	40	22310 K	46
50	110	40	22310 VA	49
50	110	42,25	32310	43
50	110	43	51410	51
50	110	44,40	3310 A	18
50	110	44,40	3310 ATN9	18
50	110	44,40	3310 D	19
50	110	44,40	3310-ZZ	20
50	110	44,40	3310-2RS	21
50	110	50	53410	52
50	110	58,50	31310 J/DF	44
50	110	64	52312	54
50	110	78	54312	55
50	130	31	6410	4
50	130	31	6410 N	11
50	130	31	NU 410	32
50	130	31	NJ 410	33
50	130	93	52412 M	54
50	139,70	31	6410 NR	12
50,50	11,50		HJ 406	36
50,80	82,55	21,59	LM 104949/911	43
50,80	85	17,46	18790/18720	43
50,80	88,90	20,64	368 A/362 A	43
50,80	93,264	30,162	3780/3720	43
50,80	97,63	24,61	28678/28622 B	43
50,80	104,78	39,688	4580/2/4535/2	43
50,80	107,95	36,512	537/532 X	43
51	9,50		HJ 307	36
52	72	7	U 307	53
52	72	7,50	U 307	56
53,975	88,90	19,05	LM 806649/610	43
53,975	95,25	27,783	33895/33821	43
53,975	95,25	27,783	33895/33822	43
54	8,50		HJ 208	36

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
54	9		HJ 2208	36
55	72	7	U 208	56
55	72	9	61811	4
55	72	9	61811-2RS	7
55	72	9	61811-2RZ	9
55	78	16	51111	51
55	80	13	61911	4
55	80	13	61911-2RS	7
55	80	13	61911-2RZ	9
55	90	11	16011	4
55	90	18	6011	4
55	90	18	6011-Z	5
55	90	18	6011-ZZ	6
55	90	18	6011-2RS	7
55	90	18	6011-RS	8
55	90	18	6011 N	11
55	90	18	6011 NR	12
55	90	18	NU 1011	32
55	90	23	32011	43
55	90	25	51211	51
55	90	26	NN 3011 KTN/SP	38
55	90	26	NN 3011 TN/SP	38
55	90	27	33011	43
55	90	30	53211	52
55	90	46	SL0450011-PP	39
55	90	54	33011/DF03C170	44
55	95	30	33111	43
55	100	21	6211	4
55	100	21	6211-Z	5
55	100	21	6211-ZZ	6
55	100	21	6211-2RS	7
55	100	21	6211-RS	8
55	100	21	6211 N	11
55	100	21	6211 NR	12
55	100	21	6211-ZNR	13
55	100	21	6211-ZZNR	14
55	100	21	6211 2RS BOMB	16
55	100	21	7211 B	17
55	100	21	QJ 211 N2M	22
55	100	21	1211 TN9	23
55	100	21	1211 KTN9	24
55	100	21	NU 211	32
55	100	21	NJ 211	33
55	100	21	NUP 211	34
55	100	21	N 211	35
55	100	22,75	30211	43
55	100	25	62211-2RS	7
55	100	25	4211 ATN9	15
55	100	25	2211 TN9	23
55	100	25	2211 KTN9	24
55	100	25	2211-2RSTN9	25
55	100	25	2211-2RSKTN9	26
55	100	25	NU 2211	32
55	100	25	NJ 2211	33
55	100	25	NUP 2211	34
55	100	25	22211	45

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
55	100	25	22211 K	46
55	100	26,75	32211	43
55	100	31	22211-2RS	47
55	100	31	22211-2RSK	48
55	100	33,30	3211 A	18
55	100	33,30	3211 ATN9	18
55	100	33,30	3211-ZZ	20
55	100	33,30	3211-2RS	21
55	100	35	33211	43
55	100	47	52213	54
55	105	35	51311	51
55	105	42	53311	52
55	105	47	52214	54
55	115	65	52313	54
55	120	29	6311	4
55	120	29	6311-Z	5
55	120	29	6311-ZZ	6
55	120	29	6311-2RS	7
55	120	29	6311-RS	8
55	120	29	6311 N	11
55	120	29	6311 NR	12
55	120	29	6311-ZNR	13
55	120	29	6311-ZZNR	14
55	120	29	7311 B	17
55	120	29	QJ 311 N2M	22
55	120	29	1311 TN9	23
55	120	29	1311 KTN9	24
55	120	29	NU 311	32
55	120	29	NJ 311	33
55	120	29	NUP 311	34
55	120	29	N 311	35
55	120	29	21311	45
55	120	29	21311 K	46
55	120	31,50	31311	43
55	120	32	30311	43
55	120	43	62311-2RS	7
55	120	43	4311 ATN9	15
55	120	43	2311	23
55	120	43	2311 K	24
55	120	43	NU 2311	32
55	120	43	NJ 2311	33
55	120	43	NUP 2311	34
55	120	43	22311	45
55	120	43	22311 K	46
55	120	43	22311 VA	49
55	120	43	22311 KVA	50
55	120	45,50	32311	43
55	120	48	51411	51
55	120	49	22311-2RS	47
55	120	49,20	3311 A	18
55	120	49,20	3311 ATN9	18
55	120	49,20	3311 D	19
55	120	49,20	3311-ZZ	20
55	120	49,20	3311-2RS	21
55	120	55	53411	52
55	120	63	31311J/DF	44

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
55	125	72	52314	54
55	140	33	6411	4
55	140	33	6411 N	11
55	140	33	6411 NR	12
55	140	33	NU 411	32
55	140	33	NJ 411	33
55	150	107	52414 M	54
57,15	96,838	21	387A/382 A	43
57,15	96,838	25,40	387 A/382 S	43
57,15	98,425	21	387 A/382	43
57,15	104,775	30,162	462/453 X	43
57,15	112,712	30,162	39580/39520	43
57,15	119,985	32,75	39580/39528	43
57,50	11		HJ 308	36
59	8,50		HJ 209	36
60	78	7,50	U 209	53
60	78	7,50	U 209	56
60	78	10	61812	4
60	78	10	61812-2RS	7
60	78	10	61812-2RZ	9
60	82	8,50	U 308	53
60	82	8,50	U 308	56
60	85	13	61912	4
60	85	13	61912-2RS	7
60	85	13	61912-2RZ	9
60	85	17	51112	51
60	95	11	16012	4
60	95	18	6012	4
60	95	18	6012-Z	5
60	95	18	6012-ZZ	6
60	95	18	6012-2RS	7
60	95	18	6012-RS	8
60	95	18	6012-2RZ	9
60	95	18	6012-RZ	10
60	95	18	6012 N	11
60	95	18	6012 NR	12
60	95	18	NU 1012	32
60	95	23	32012	43
60	95	26	NN 3012 KTN/SP	38
60	95	26	NN 3012 TN/SP	38
60	95	26	51212	51
60	95	27	33012	43
60	95	31	53212	52
60	95	46	SL0450012-PP	39
60	95	46	32012 X/DFC250	44
60	100	30	33112	43
60	110	22	6212	4
60	110	22	6212-Z	5
60	110	22	6212-ZZ	6
60	110	22	6212-2RS	7
60	110	22	6212-RS	8
60	110	22	6212 N	11
60	110	22	6212 NR	12
60	110	22	6212-ZNR	13
60	110	22	6212-ZZNR	14
60	110	22	6212 2RS BOMB	16

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
60	110	22	7212 B	17
60	110	22	QJ 212 N2M	22
60	110	22	1212 TN9	23
60	110	22	1212 KTN9	24
60	110	22	NU 212	32
60	110	22	NJ 212	33
60	110	22	NUP 212	34
60	110	22	N 212	35
60	110	23,75	30212	43
60	110	28	62212-2RS	7
60	110	28	4212 ATN9	15
60	110	28	2212 TN9	23
60	110	28	2212 KTN9	24
60	110	28	2212-2RSTN9	25
60	110	28	2212-2RSKTN9	26
60	110	28	NU 2212	32
60	110	28	NJ 2212	33
60	110	28	NUP 2212	34
60	110	28	22212	45
60	110	28	22212 K	46
60	110	29,75	32212	43
60	110	34	22212-2RS	47
60	110	34	22212-2RSK	48
60	110	35	51312	51
60	110	36,50	3212 A	18
60	110	36,50	3212 ATN9	18
60	110	36,50	3212-ZZ	20
60	110	36,50	3212-2RS	21
60	110	38	33212	43
60	110	42	53312	52
60	110	47	52215	54
60	110	62	11212 TN9	27
60	130	31	6312	4
60	130	31	6312-Z	5
60	130	31	6312-ZZ	6
60	130	31	6312-2RS	7
60	130	31	6312 N	11
60	130	31	6312 NR	12
60	130	31	6312-ZNR	13
60	130	31	6312-ZZNR	14
60	130	31	7312 B	17
60	130	31	QJ 312 N2M	22
60	130	31	1312 TN9	23
60	130	31	1312 KTN9	24
60	130	31	NU 312	32
60	130	31	NJ 312	33
60	130	31	NUP 312	34
60	130	31	N 312	35
60	130	31	21312	45
60	130	31	21312 K	46
60	130	33,50	30312	43
60	130	33,50	31312	43
60	130	42	29412 M	58
60	130	46	62312-2RS	7
60	130	46	4312 ATN9	15
60	130	46	2312	23

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
60	130	46	2312 K	24
60	130	46	NU 2312	32
60	130	46	NJ 2312	33
60	130	46	NUP 2312	34
60	130	46	22312	45
60	130	46	22312 K	46
60	130	46	22312 VA	49
60	130	46	22312 KVA	50
60	130	48,50	32312	43
60	130	51	51412 M	51
60	130	54	3312 A	18
60	130	54	3312-ZZ	20
60	130	58	53412M	52
60	130	67	31312 J/DF	44
60	135	79	52315	54
60	150	35	6412	4
60	150	35	6412 N	11
60	150	35	NU 412	32
60	150	35	NJ 412	33
60	150	35	NUP 412	34
60	159,70	35	6412 NR	12
62	82	7,50	U 210	53
63,50	112,712	30,162	3982/3920	43
64	9		HJ 210	36
64,40	11,50		HJ 309	36
65	85	10	61813	4
65	85	10	61813-2RS	7
65	85	10	61813-2RZ	9
65	90	10	U 309	53
65	90	10	U 309	56
65	90	13	61913	4
65	90	13	61913-2RS	7
65	90	13	61913-2RZ	9
65	90	18	51113	51
65	95	12	U 408	53
65	100	11	16013	4
65	100	18	6013	4
65	100	18	6013-Z	5
65	100	18	6013-ZZ	6
65	100	18	6013-2RS	7
65	100	18	6013-RS	8
65	100	18	6013 N	11
65	100	18	6013 NR	12
65	100	18	NU 1013	32
65	100	23	32013	43
65	100	26	NN 3013 KTN/SP	38
65	100	26	NN 3013 TN/SP	38
65	100	27	33013	43
65	100	27	51213	51
65	100	32	53213	52
65	100	35	24013	45
65	100	35	24013 K30	46
65	100	46	SL045013-PP	39
65	110	34	33113	43
65	115	36	51313	51
65	115	43	53313	52

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
65	115	48	52216	54
65	120	23	6213	4
65	120	23	6213-Z	5
65	120	23	6213-ZZ	6
65	120	23	6213-2RS	7
65	120	23	6213-RS	8
65	120	23	6213 N	11
65	120	23	6213 NR	12
65	120	23	6213-ZNR	13
65	120	23	6213-ZZNR	14
65	120	23	7213 B	17
65	120	23	QJ 213 N2 M	22
65	120	23	1213 TN9	23
65	120	23	1213 KTN9	24
65	120	23	NU 213	32
65	120	23	NJ 213	33
65	120	23	NUP 213	34
65	120	23	N 213	35
65	120	24,70	30213	43
65	120	31	62213-2RS	7
65	120	31	4213 ATN9	15
65	120	31	2213 TN9	23
65	120	31	2213 KTN9	24
65	120	31	2213-2RSTN9	25
65	120	31	2213-2RSKTN9	26
65	120	31	NU 2213	32
65	120	31	NJ 2213	33
65	120	31	NUP 2213	34
65	120	31	22213	45
65	120	31	22213 K	46
65	120	32,75	32213	43
65	120	38	22213-2RS	47
65	120	38	22213-2RSK	48
65	120	38,10	3213 A	18
65	120	38,10	3213-ZZ	20
65	120	38,10	3213-2RS	21
65	120	41	33213	43
65	120	49,50	30213 J/DF	44
65	140	31	QJ 313 N2M	22
65	140	33	6313	4
65	140	33	6313-Z	5
65	140	33	6313-ZZ	6
65	140	33	6313-2RS	7
65	140	33	6313-RS	8
65	140	33	6313 N	11
65	140	33	6313 NR	12
65	140	33	6313-ZNR	13
65	140	33	6313-ZZNR	14
65	140	33	7313 B	17
65	140	33	1313 TN9	23
65	140	33	1313 KTN9	24
65	140	33	NU 313	32
65	140	33	NJ 313	33
65	140	33	NUP 313	34
65	140	33	N 313	35
65	140	33	21313	45

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
65	140	33	21313 K	46
65	140	36	30313	43
65	140	36	31313	43
65	140	45	29413 M	58
65	140	48	62313-2RS	7
65	140	48	4313 ATN9	15
65	140	48	2313	23
65	140	48	2313 K	24
65	140	48	NU 2313	32
65	140	48	NJ 2313	33
65	140	48	NUP 2313	34
65	140	48	22313	45
65	140	48	22313 K	46
65	140	48	22313 VA	49
65	140	48	22313 KVA	50
65	140	51	32313	43
65	140	56	51413 M	51
65	140	58,70	3313 A	18
65	140	58,70	3313-ZZ	20
65	140	58,70	3313-2RS	21
65	140	72	31313 J/DF	44
65	140	79	52316	54
65	140	95	54316	55
65	160	37	6413	4
65	160	37	6413 N	11
65	160	37	6413 NR	12
65	160	37	NU 413	32
65	160	37	NJ 413	33
65	170	140	54416M	55
65,088	135,755	53,975	6379/K6320	43
66,675	112,712	30,162	39590/39520	43
66,675	119,985	32,75	39590/39528	43
69,85	112,712	25,40	29675/29620/3	43
69,85	127	36,512	566/563	43
70	90	10	61814	4
70	90	10	61814-2RS	7
70	90	10	61814-2RZ	9
70	95	18	51114	51
70	100	16	61914	4
70	100	16	61914-2RS	7
70	100	16	61914-2RZ	9
70	105	27	51214	51
70	105	32	53214	52
70	110	13	16014	4
70	110	20	6014	4
70	110	20	6014-Z	5
70	110	20	6014-ZZ	6
70	110	20	6014-2RS	7
70	110	20	6014-RS	8
70	110	20	6014 N	11
70	110	20	6014 NR	12
70	110	20	NU 1014	32
70	110	25	32014	43
70	110	30	NN 3014 KTN/SP	38
70	110	30	NN 3014 TN/SP	38
70	110	31	33014	43

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
70	110	54	SL045014-PP	39
70	110	62	33014/DF	44
70	120	37	33114	43
70	125	24	6214	4
70	125	24	6214-Z	5
70	125	24	6214-ZZ	6
70	125	24	6214-2RS	7
70	125	24	6214-RS	8
70	125	24	6214 N	11
70	125	24	6214 NR	12
70	125	24	6214-ZNR	13
70	125	24	6214-ZZNR	14
70	125	24	7214 B	17
70	125	24	QJ 214 N2M	22
70	125	24	1214 TN9	23
70	125	24	1214 KTN9	24
70	125	24	NU 214	32
70	125	24	NJ 214	33
70	125	24	NUP 214	34
70	125	24	N 214	35
70	125	26,25	30214	43
70	125	31	62214-2RS	7
70	125	31	4214 ATN9	15
70	125	31	2214	23
70	125	31	2214 K	24
70	125	31	2214-2RSTN9	25
70	125	31	NU 2214	32
70	125	31	NJ 2214	33
70	125	31	NUP 2214	34
70	125	31	22214	45
70	125	31	22214 K	46
70	125	33,20	32214	43
70	125	38	22214-2RS	47
70	125	38	22214-2RSK	48
70	125	39,70	3214 A	18
70	125	39,70	3214-ZZ	20
70	125	39,70	3214-2RS	21
70	125	40	51314	51
70	125	42	33214	43
70	125	48	53314	52
70	125	55	52217	54
70	150	35	6314	4
70	150	35	6314-Z	5
70	150	35	6314-ZZ	6
70	150	35	6314-2RS	7
70	150	35	6314 N	11
70	150	35	6314 NR	12
70	150	35	6314-ZNR	13
70	150	35	6314-ZZNR	14
70	150	35	7314 B	17
70	150	35	QJ 314 N2M	22
70	150	35	1314	23
70	150	35	1314 K	24
70	150	35	NU 314	32
70	150	35	NJ 314	33
70	150	35	NUP 314	34

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
70	150	35	N 314	35
70	150	35	21314	45
70	150	35	21314 K	46
70	150	38	30314	43
70	150	38	31314	43
70	150	48	29414 M	58
70	150	51	62314-2RS	7
70	150	51	4314 ATN9	15
70	150	51	2314	23
70	150	51	2314 K	24
70	150	51	NU 2314	32
70	150	51	NJ 2314	33
70	150	51	NUP 2314	34
70	150	51	22314	45
70	150	51	22314 K	46
70	150	51	22314 VA	49
70	150	51	22314 KVA	50
70	150	54	32314	43
70	150	60	51414 M	51
70	150	63,50	3314 A	18
70	150	63,50	3314-ZZ	20
70	150	63,50	3314-2RS	21
70	150	69	53414 M	52
70	150	76	31314 J/DF	44
70	150	96	54317	55
70	180	42	6414	4
70	180	42	NU 414	32
70	180	42	NJ 414	33
70,80	9,50		HJ 211	36
70,80	10		HJ 2211	36
71,20	13		HJ 310	36
71,438	117,475	30,162	33281/33462	43
71,80	13,50		HJ 409	36
72	95	9	U 211	53
72	95	9	U 211	56
72	100	11	U 310	53
72	100	11	U 310	56
72	105	12,50	U 409	56
73,025	112,712	25,40	29685/2/29620/3	43
73,025	117,475	30,162	33287/33462	43
75	95	10	61815	4
75	95	10	61815-2RS	7
75	95	10	61815-2RZ	9
75	100	19	51115	51
75	105	16	61915	4
75	105	16	61915-2RS	7
75	105	16	61915-2RZ	9
75	105	20	32915	43
75	105	38	234915	57
75	110	12	16115	4
75	110	27	51215	51
75	110	32	53215	52
75	115	13	16015	4
75	115	20	6015	4
75	115	20	6015-Z	5
75	115	20	6015-ZZ	6

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
75	115	20	6015-2RS	7
75	115	20	6015-RS	8
75	115	20	6015-2RZ	9
75	115	20	6015-RZ	10
75	115	20	6015 N	11
75	115	20	6015 NR	12
75	115	20	NU 1015	32
75	115	25	32015	43
75	115	30	NN 3015 KTN/SP	38
75	115	30	NN 3015 TN/SP	38
75	115	31	33015	43
75	115	40	24015	45
75	115	40	24015 K30	46
75	115	48	234415	57
75	115	54	SL045015-PP	39
75	115	62	33015/DF	44
75	125	37	33115	43
75	125	74	33115/DFC150	44
75	130	25	6215	4
75	130	25	6215-Z	5
75	130	25	6215-ZZ	6
75	130	25	6215-2RS	7
75	130	25	6215-RS	8
75	130	25	6215 N	11
75	130	25	6215 NR	12
75	130	25	7215 B	17
75	130	25	QJ 215 N2M	22
75	130	25	1215 TN9	23
75	130	25	1215 K	24
75	130	25	NU 215	32
75	130	25	NJ 215	33
75	130	25	NUP 215	34
75	130	25	N 215	35
75	130	27,25	30215	43
75	130	31	4215 ATN9	15
75	130	31	2215	23
75	130	31	2215 KTN9	24
75	130	31	NU 2215	32
75	130	31	NJ 2215	33
75	130	31	NUP 2215	34
75	130	31	22215	45
75	130	31	22215 K	46
75	130	33,25	32215	43
75	130	38	22215-2RS	47
75	130	38	22215-2RSK	48
75	130	41	33215	43
75	130	41,30	3215 A	18
75	130	41,30	3215-ZZ	20
75	130	41,30	3215-2RS	21
75	130	54,50	30215J/DF	44
75	130	66,50	32215J/DF	44
75	135	44	51315	51
75	135	52	53315	52
75	135	62	52218	54
75	160	37	6315	4
75	160	37	6315-Z	5

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
75	160	37	6315-ZZ	6
75	160	37	6315-2RS	7
75	160	37	6315-RS	8
75	160	37	6315 N	11
75	160	37	6315 NR	12
75	160	37	7315 B	17
75	160	37	QJ 315 N2M	22
75	160	37	1315	23
75	160	37	1315 K	24
75	160	37	NU 315	32
75	160	37	NJ 315	33
75	160	37	NUP 315	34
75	160	37	N 315	35
75	160	37	21315	45
75	160	37	21315K	46
75	160	40	30315	43
75	160	40	31315	43
75	160	51	29415 M	58
75	160	55	4315 ATN9	15
75	160	55	2315	23
75	160	55	2315 K	24
75	160	55	NU 2315	32
75	160	55	NJ 2315	33
75	160	55	NUP 2315	34
75	160	55	22315	45
75	160	55	22315K	46
75	160	55	22315 VA	49
75	160	55	22315 KVA	50
75	160	58	32315	43
75	160	64	22315-2RS	47
75	160	65	51415 M	51
75	160	68,30	3315 A	18
75	160	68,30	3315-ZZ	20
75	160	68,30	3315-2RS	21
75	160	75	53415 M	52
75	160	80	31315 J/DF	44
75	190	45	6415	4
75	190	45	NU 415	32
75	190	45	NJ 415	33
76,20	127	30,162	42687/42620	43
76,20	139,99	36,512	575/572	43
77,50	9		HJ 2311	36
77,50	9		HJ 311	36
77,50	10		HJ 212	36
77,50	10		HJ 2212	36
78	100	9	U 212	53
78,80	14,50		HJ 410	36
80	100	10	61816	4
80	100	10	61816-2RS	7
80	100	10	61816-2RZ	9
80	105	19	51116	51
80	110	11,50	U 311	53
80	110	16	61916	4
80	110	16	61916-2RS	7
80	110	16	61916-2RZ	9
80	110	38	234916	57

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
80	115	14	U 410	53
80	115	14	U 410	56
80	115	28	51216	51
80	115	33	53216	52
80	125	14	16016	4
80	125	22	6016	4
80	125	22	6016-Z	5
80	125	22	6016-ZZ	6
80	125	22	6016-2RS	7
80	125	22	6016-RS	8
80	125	22	6016 N	11
80	125	22	6016 NR	12
80	125	22	NU 1016	32
80	125	22	NJ 1016	33
80	125	29	32016	43
80	125	34	NN 3016 KTN/SP	38
80	125	34	NN 3016 TN/SP	38
80	125	36	33016	43
80	125	54	234416	57
80	125	58	32016 X/DFC165	44
80	125	60	SL045016-PP	39
80	130	37	33116	43
80	140	26	6216	4
80	140	26	6216-Z	4
80	140	26	6216-ZZ	6
80	140	26	6216-2RS	8
80	140	26	6216-RS	8
80	140	26	6216 N	11
80	140	26	6216 NR	12
80	140	26	QJ 216 N2M	22
80	140	26	1216 TN9	23
80	140	26	7216B	23
80	140	26	1216 K	24
80	140	26	NU 216	32
80	140	26	NJ 216	33
80	140	26	NUP 216	34
80	140	26	N 216	35
80	140	28,25	30216	43
80	140	33	4216 ATN9	15
80	140	33	2216	23
80	140	33	2216 KTN9	24
80	140	33	NU 2216	32
80	140	33	NJ 2216	33
80	140	33	NUP 2216	34
80	140	33	22216	45
80	140	33	22216 K	46
80	140	35,25	32216	43
80	140	40	22216-2RS	47
80	140	40	22216-2RSK	48
80	140	44	51316	51
80	140	44,40	3216 A	18
80	140	44,40	3216-ZZ	20
80	140	44,40	3216-2RS	21
80	140	46	33216	43
80	140	52	53316	52
80	140	70,50	32216 J/DF	44

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
80	170	39	6316	4
80	170	39	6316-Z	5
80	170	39	6316-ZZ	6
80	170	39	6316-2RS	7
80	170	39	6316-RS	8
80	170	39	7316 B	17
80	170	39	QJ 316 N2M	22
80	170	39	1316	23
80	170	39	1316 K	24
80	170	39	NU 316	32
80	170	39	NJ 316	33
80	170	39	NUP 316	34
80	170	39	N 316	35
80	170	39	21316	45
80	170	39	21316 K	46
80	170	42,50	30316	43
80	170	42,50	31316	43
80	170	54	29416 M	58
80	170	58	2316	23
80	170	58	2316 K	24
80	170	58	NU 2316	32
80	170	58	NJ 2316	33
80	170	58	NUP 2316	34
80	170	58	22316	45
80	170	58	22316 K	46
80	170	58	22316 VA	49
80	170	58	22316 KVA	50
80	170	61,50	32316	43
80	170	68	51416 M	51
80	170	68,30	3316 A	18
80	170	68,30	3316 D	19
80	170	68,30	3316-ZZ	20
80	170	68,30	3316-2RS	21
80	170	85	31316J1/DF	44
80	200	48	6416	4
80	200	48	NU 416	32
80	200	48	NJ 416	33
80	210	176	54420 M	55
82	105	9	U 213	53
82,55	139,992	36,512	580/572	43
82,55	146,05	41,275	663/653	43
84	10		HJ 1014	36
84,30	14,50		HJ 312	36
84,30	16		HJ 2312	36
84,40	10		HJ 213	36
84,40	10,50		HJ 2213	36
85	110	13	61817	4
85	110	13	61817-2RS	7
85	110	13	61817-2RZ	9
85	110	19	51117	51
85	115	11,50	U 312	53
85	115	11,50	U 312	56
85	120	18	61917	4
85	125	31	51217	51
85	125	37	53217	52
85	130	14	16017	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
85	130	22	6017	4
85	130	22	6017-Z	5
85	130	22	6017-ZZ	6
85	130	22	6017-2RS	7
85	130	22	6017-RS	8
85	130	22	6017 N	11
85	130	22	6017 NR	12
85	130	22	NU 1017	32
85	130	29	32017	43
85	130	34	NN 3017 KTN9/SP	38
85	130	34	NN 3017 TN9/SP	38
85	130	36	33017	43
85	130	54	234417	57
85	130	58	32017 X/DF	44
85	130	60	SL045017-PP	39
85	130	72	33017/DFC240	44
85	140	41	33117	43
85	150	28	6217	4
85	150	28	6217-Z	5
85	150	28	6217-ZZ	6
85	150	28	6217-2RS	7
85	150	28	6217-RS	8
85	150	28	6217 N	11
85	150	28	6217 NR	12
85	150	28	7217 B	17
85	150	28	QJ 217 N2M	22
85	150	28	1217 TN9	23
85	150	28	1217 K	24
85	150	28	NU 217	32
85	150	28	NJ 217	33
85	150	28	NUP 217	34
85	150	28	N 217	35
85	150	30,50	30217	43
85	150	36	4217 ATN9	15
85	150	36	2217	23
85	150	36	2217 K	24
85	150	36	NU 2217	32
85	150	36	NJ 2217	33
85	150	36	NUP 2217	34
85	150	36	22217	45
85	150	36	22217 K	46
85	150	38,50	32217	43
85	150	39	29317 M	58
85	150	44	22217-2RS	47
85	150	44	22217-2RSK	48
85	150	49	33217	43
85	150	49	51317	51
85	150	49,20	3217 A	18
85	150	49,20	3217-ZZ	20
85	150	49,20	3217-2RS	21
85	150	54	234917	57
85	150	58	53317	52
85	150	61	30217 J/DF	44
85	150	67	52220	54
85	150	77	32217 J/DF	44
85	150	98	33217/DF	44

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
85	170	97	52320	54
85	180	41	6317	4
85	180	41	6317-Z	5
85	180	41	6317-ZZ	6
85	180	41	6317-2RS	7
85	180	41	6317-RS	8
85	180	41	7317 B	17
85	180	41	QJ 317 N2M	22
85	180	41	1317	23
85	180	41	1317 K	24
85	180	41	NU 317	32
85	180	41	NJ 317	33
85	180	41	NUP 317	34
85	180	41	N 317	35
85	180	41	21317	45
85	180	41	21317 K	46
85	180	44,50	30317	43
85	180	44,50	31317	43
85	180	58	29417 M	58
85	180	60	2317 K	24
85	180	60	NU 2317	32
85	180	60	NJ 2317	33
85	180	60	NUP 2317	34
85	180	60	22317	45
85	180	60	22317 K	46
85	180	60	22317 VA	49
85	180	60	22317 KVA	50
85	180	63,50	32317	43
85	180	72	51417 M	51
85	180	73	3317 A	18
85	180	73	3317 A	18
85	180	89	31317 J/DF	44
85	210	52	6417	4
85	210	52	NU 417	32
85	210	52	NJ 417	33
86	180	80	2317	23
88	110	9	U 214	53
88	125	15,50	U 411	53
88,90	152,40	39,688	593/592 A	43
89,40	11		HJ 214	36
89,40	11,50		HJ 2214	36
90	115	13	61818	4
90	115	13	61818-2RS	7
90	115	13	61818-2RZ	9
90	120	12,50	U 313	53
90	120	22	51118	51
90	125	18	61918	4
90	125	44	234918	57
90	135	35	51218	51
90	135	42	53218	52
90	140	16	16018	4
90	140	24	6018	4
90	140	24	6018-Z	5
90	140	24	6018-ZZ	6
90	140	24	6018-2RS	7
90	140	24	6018-RS	8

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
90	140	24	6018 N	11
90	140	24	6018 NR	12
90	140	24	NU 1018	32
90	140	32	32018	43
90	140	37	NN 3018 KTN9/SP	38
90	140	37	NN 3018 TN9/SP	38
90	140	39	33018	43
90	140	60	234418	57
90	140	64	32018 X/DF	44
90	140	67	SL045018-PP	39
90	140	70	FC 182870	40
90	140	78	33018/DFC150	44
90	150	45	33118	43
90	155	39	29318 M	58
90	155	50	51318	51
90	155	59	53318	52
90	160	30	6218	4
90	160	30	6218-Z	5
90	160	30	6218-ZZ	6
90	160	30	6218-2RS	7
90	160	30	6218-RS	8
90	160	30	6218 N	11
90	160	30	6218 NR	12
90	160	30	7218 B	17
90	160	30	QJ 218 N2M	22
90	160	30	1218 TN9	23
90	160	30	1218 K	24
90	160	30	NU 218	32
90	160	30	NJ 218	33
90	160	30	NUP 218	34
90	160	30	N 218	35
90	160	32,50	30218	43
90	160	40	4218 ATN9	15
90	160	40	2218	23
90	160	40	2218 K	24
90	160	40	NU 2218	32
90	160	40	NJ 2218	33
90	160	40	NUP 2218	34
90	160	40	22218	45
90	160	40	22218 K	46
90	160	42,50	32218	43
90	160	48	22218-2RS	47
90	160	48	22218-2RSK	48
90	160	52,40	3218 A	18
90	160	52,40	3218-ZZ	20
90	160	52,40	3218-2RS	21
90	160	52,40	23218	45
90	160	52,40	23218 K	46
90	160	65	30218 J/DF	44
90	160	85	32218 J/DF	44
90	180	41	NUP 318	34
90	190	43	6318	4
90	190	43	6318-Z	5
90	190	43	6318-ZZ	6
90	190	43	6318-2RS	7
90	190	43	6318-RS	8

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
90	190	43	7318 B	17
90	190	43	QJ 318 N2M	22
90	190	43	NU 318	32
90	190	43	NJ 318	33
90	190	43	N 318	35
90	190	43	21318	45
90	190	43	21318 K	46
90	190	45	1318	23
90	190	45	1318 K	24
90	190	46,50	30318	43
90	190	46,50	31318	43
90	190	60	29418 M	58
90	190	64	2318	23
90	190	64	2318 K	24
90	190	64	NU 2318	32
90	190	64	NJ 2318	33
90	190	64	NUP 2318	34
90	190	64	22318	45
90	190	64	22318 K	46
90	190	64	22318 VA	49
90	190	64	22318 KVA	50
90	190	67,50	32318	43
90	190	73	3318 A	18
90	190	73	3318 D	19
90	190	77	51418 M	51
90	190	88	53418M	52
90	190	93	31318 J/DF	44
90	225	54	6418	4
90	225	54	NU 418	32
90,50	15,50		HJ 313	36
90,50	18		HJ 2313	36
92	115	9,50	U 215	53
92,075	152,40	39,688	598/592 A	43
94,30	11		HJ 215	36
95	120	13	61819	4
95	120	13	61819-2RS	7
95	120	13	61819-2RZ	9
95	130	18	61919	4
95	130	18	61919-2RS	7
95	130	44	234919	57
95	135	16	U 412	53
95	145	16	16019	4
95	145	24	6019	4
95	145	24	6019-Z	5
95	145	24	6019-ZZ	6
95	145	24	6019-2RS	7
95	145	24	6019-RS	8
95	145	24	NU 1019	32
95	145	32	32019	43
95	145	37	NN 3019 KTN9/SP	38
95	145	37	NN 3019 TN9/SP	38
95	145	39	33019	43
95	145	60	234419	57
95	145	67	SL045019-PP	39
95	145	78	33019/DF	44
95	160	67	52222	54

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
95	170	32	6219	4
95	170	32	6219-Z	5
95	170	32	6219-ZZ	6
95	170	32	6219-2RS	7
95	170	32	6219-RS	8
95	170	32	6219 N	11
95	170	32	6219 NR	12
95	170	32	7219 B	17
95	170	32	QJ 219 N2 M	22
95	170	32	1219 TN9	23
95	170	32	1219 K	24
95	170	32	NU 219	32
95	170	32	NJ 219	33
95	170	32	NUP 219	34
95	170	32	N 219	35
95	170	35,50	30219	43
95	170	43	2219	23
95	170	43	2219 M	23
95	170	43	2219 K	24
95	170	43	NU 2219	32
95	170	43	NJ 2219	33
95	170	43	NUP 2219	34
95	170	43	22219	45
95	170	43	22219 K	46
95	170	45,50	32219	43
95	170	55,60	3219 A	18
95	170	55,60	3219-ZZ	20
95	170	55,60	3219-2RS	21
95	170	91	32219 J/DF	44
95	200	45	6319	4
95	200	45	6319-Z	5
95	200	45	6319-ZZ	6
95	200	45	6319-2RS	7
95	200	45	6319-RS	8
95	200	45	7319 B	17
95	200	45	QJ 319 N2 M	22
95	200	45	1319	23
95	200	45	1319 K	24
95	200	45	NU 319	32
95	200	45	NJ 319	33
95	200	45	NUP 319	34
95	200	45	N 319	35
95	200	45	21319	45
95	200	45	21319 K	46
95	200	49,50	30319	43
95	200	49,50	31319	43
95	200	67	2319	23
95	200	67	NU 2319	32
95	200	67	NJ 2319	33
95	200	67	NUP 2319	34
95	200	67	22319	45
95	200	67	22319 K	46
95	200	67	22319 VA	49
95	200	67	22319 KVA	50
95	200	71,50	32319	43
95	200	77,80	3319 A	18

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
95	200	77,80	3319 D	19
95	200	99	31319 J/DF	44
95	240	55	NU 419	32
95,25	146,05	33,34	47896/47820	43
95,25	152,40	39,688	594/592 A	43
97,30	15,50		HJ 314	36
97,30	18,50		HJ 2314	36
98	120	10	U 216	53
98	130	13	U 314	53
98,50	18		HJ 413	36
100	125	13	61820	4
100	125	13	61820-2RS	7
100	125	13	61820-2RZ	9
100	135	25	51120	51
100	140	20	61920	4
100	140	25	32920	43
100	140	40	NNU 4920 K/SPW33	37
100	140	40	NNU 4920 SPW33	37
100	140	48	234920	57
100	140	70	FC 202870	40
100	140	104	FC 2028104	40
100	150	16	16020	4
100	150	24	6020	4
100	150	24	6020-Z	5
100	150	24	6020-ZZ	6
100	150	24	6020-2RS	7
100	150	24	6020-RS	8
100	150	24	6020 N	11
100	150	24	6020 NR	12
100	150	24	NU 1020	32
100	150	32	32020	43
100	150	37	NN 3020 KTN9/SP	38
100	150	37	NN 3020 TN9/SP	38
100	150	38	51220	51
100	150	39	33020	43
100	150	45	53220	52
100	150	50	24020	45
100	150	50	24020 K30	46
100	150	60	234420	57
100	150	64	32020 X/DF	44
100	150	67	SL045020-PP	39
100	150	106	FC 2030106	40
100	165	52	23120	45
100	165	52	23120 K	46
100	165	65	24120	45
100	165	65	24120 K30	46
100	170	42	29320 M	58
100	170	55	51320	51
100	170	64	53320	52
100	170	68	52224	54
100	180	34	6220	4
100	180	34	6220-Z	5
100	180	34	6220-ZZ	6
100	180	34	6220-2RS	7
100	180	34	6220-RS	8
100	180	34	6220 N	11

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
100	180	34	6220 NR	12
100	180	34	7220 B	17
100	180	34	QJ 220 N2M	22
100	180	34	1220 TN9	23
100	180	34	1220 K	24
100	180	34	NU 220	32
100	180	34	NJ 220	33
100	180	34	NUP 220	34
100	180	34	N 220	35
100	180	37	30220	43
100	180	46	4220 ATN9	15
100	180	46	2220	23
100	180	46	2220 M	23
100	180	46	2220 K	24
100	180	46	NU 2220	32
100	180	46	NJ 2220	33
100	180	46	NUP 2220	34
100	180	46	22220	45
100	180	46	22220 K	46
100	180	49	32220	43
100	180	55	22220-2RS	47
100	180	58	33220	43
100	180	60,30	3220 A	18
100	180	60,30	3220 D	19
100	180	60,30	3220-ZZ	20
100	180	60,30	3220-2RS	21
100	180	60,30	23220	45
100	180	60,30	23220 K	46
100	180	74	30220 J/DF	44
100	180	98	32220 J/DF	44
100	210	67	29420 M	58
100	210	85	51420 M	51
100	210	98	53420 M	52
100	215	47	6320	4
100	215	47	6320-Z	5
100	215	47	6320-ZZ	6
100	215	47	6320-2RS	7
100	215	47	6320-RS	8
100	215	47	7320 B	17
100	215	47	QJ 320 N2M	22
100	215	47	1320 K	24
100	215	47	NU 320	32
100	215	47	NJ 320	33
100	215	47	NUP 320	34
100	215	47	N 320	35
100	215	47	21320	45
100	215	47	21320 K	46
100	215	51,70	30320	43
100	215	52	1320	23
100	215	56,50	31320	43
100	215	73	2320	23
100	215	73	2320 K	24
100	215	73	NU 2320	32
100	215	73	NJ 2320	33
100	215	73	NUP 2320	34
100	215	73	22320	45

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
100	215	73	22320 K	46
100	215	73	22320 VA	49
100	215	73	22320 KVA	50
100	215	77,50	32320	43
100	215	82,60	3320 A	18
100	215	82,60	3320	19
100	215	82,60	3320 D	19
100	215	103	30320J/DFC400	44
100	215	113	31320 XJ/DF	44
100	250	58	NU 420	32
101	12,50		HJ 216	36
101	12,50		HJ 2216	36
101,60	168,275	41,275	687/672	43
104	16,50		HJ 315	36
104	19,50		HJ 2315	36
105	130	11	U 217	53
105	130	13	61821	4
105	130	13	61821-2RS	7
105	130	13	61821-2RZ	9
105	140	15	U 315	53
105	145	20	61921	4
105	145	40	NNU 4921 K/SPW33	37
105	145	40	NNU 4921 SPW33	37
105	145	48	234921	57
105	160	18	16021	4
105	160	26	6021	4
105	160	26	6021-Z	5
105	160	26	6021-ZZ	6
105	160	26	6021-2RS	7
105	160	26	6021-RS	8
105	160	26	6021 N	11
105	160	26	6021 NR	12
105	160	26	NU 1021	32
105	160	35	32021	43
105	160	41	NN 3021 KTN9/SP	38
105	160	41	NN 3021 TN9/SP	38
105	160	43	33021	43
105	160	66	234421	57
105	160	70	32021 X/DF	44
105	175	69	NNU 4121 K30M/W33	37
105	175	69	NNU 4121 M/W33	37
105	190	36	6221	4
105	190	36	6221-Z	5
105	190	36	6221-ZZ	6
105	190	36	6221-2RS	7
105	190	36	6221-RS	8
105	190	36	7221 B	17
105	190	36	1221 TN9	23
105	190	36	NU 221	32
105	190	36	NJ 221	33
105	190	36	NUP 221	34
105	190	36	N 221	35
105	190	39	30221	43
105	190	53	32221	43
105	190	65,10	3221	19
105	225	49	6321	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
105	225	49	6321-Z	5
105	225	49	6321-ZZ	6
105	225	49	7321 B	17
105	225	49	NU 321	32
105	225	49	NJ 321	33
105	225	49	N 321	35
105	225	81,50	32321	43
105	260	60	NU 421	32
107	12,50		HJ 217	36
110	17		HJ 316	36
110	20		HJ 2316	36
110	20		HJ 414	36
110	140	13,50	U 218	53
110	140	16	61822	4
110	140	16	61822-2RS	7
110	140	16	61822-2RZ	9
110	145	15	U 316	53
110	145	18	U 316	56
110	145	25	51122	51
110	150	20	61922	4
110	150	25	32922	43
110	150	40	NNU 4922 K/SPW33	37
110	150	40	NNU 4922 SPW33	37
110	150	48	234922	57
110	155	19,50	U 414	53
110	160	38	51222	51
110	160	45	53222	52
110	170	19	16022	4
110	170	28	6022	4
110	170	28	6022-Z	5
110	170	28	6022-ZZ	6
110	170	28	6022-2RS	7
110	170	28	6022-RS	8
110	170	28	6022 N	11
110	170	28	6022 NR	12
110	170	28	QJ 1022	22
110	170	28	NU 1022	32
110	170	38	32022	43
110	170	45	NN 3022 KTN9/SP	38
110	170	45	NN 3022 TN9/SP	38
110	170	45	23022	45
110	170	45	23022 K	46
110	170	45	23022-2RS	47
110	170	47	33022	43
110	170	60	24022	45
110	170	60	24022 K30	46
110	170	72	234422	57
110	170	76	32022 X/DF	44
110	170	80	SL045022-PP	39
110	170	120	FC 2234120	40
110	180	56	33122	43
110	180	56	23122	45
110	180	56	23122 K	46
110	180	56	23122-2RS	47
110	180	69	NNU 4122 K30M/W33	37
110	180	69	NNU 4122 M/W33	37

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
110	180	69	24122	45
110	180	69	24122 K30	46
110	180	69	24122-2RS	47
110	180	112	33122/DF	44
110	190	48	29322 M	58
110	190	63	51322	51
110	190	72	53322 M	52
110	190	80	52226	54
110	200	38	6222	4
110	200	38	6222-Z	5
110	200	38	6222-ZZ	6
110	200	38	7222 B	17
110	200	38	QJ 222 N2M	22
110	200	38	1222 TN9	23
110	200	38	1222 K	24
110	200	38	NU 222	32
110	200	38	NJ 222	33
110	200	38	NUP 222	34
110	200	38	N 222	35
110	200	41	30222	43
110	200	50	6322	4
110	200	50	7322 B	17
110	200	50	QJ 322 N2M	22
110	200	50	NU 322	32
110	200	50	NJ 322	33
110	200	50	N 322	35
110	200	50	21322	45
110	200	53	2222	23
110	200	53	2222 M	23
110	200	53	2222 KM	24
110	200	53	NU 2222	32
110	200	53	NJ 2222	33
110	200	53	NUP 2222	34
110	200	53	22222	45
110	200	53	22222 K	46
110	200	54,50	30322	43
110	200	56	32222	43
110	200	63	22222-2RS	47
110	200	69,80	3222 A	18
110	200	69,80	23222	45
110	200	69,80	23222 K	46
110	200	73	29422 M	58
110	200	82	30222 J/DF	44
110	200	112	32222 J/DF	44
110	230	95	51422 M	51
110	240	50	1322 M	23
110	240	50	1322 KM	24
110	240	50	NUP 322	34
110	240	63	31322	43
110	240	80	NU 2322	32
110	240	80	NJ 2322	33
110	240	80	NUP 2322	34
110	240	80	22322	45
110	240	80	22322 K	46
110	240	80	22322 VA	49
110	240	80	22322 KVA	50

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
110	240	84,50	32322	43
110	240	92,10	3322 A	18
110	240	92,10	3322 D	19
110	240	126	31322 XJ/DF	44
110	280	65	NU 422	32
110	280	65	NJ 422	33
114	14		HJ 218	36
114	15		HJ 2218	36
114,30	177,80	41,275	64450/64700	43
114,30	180,975	34,925	68450/68712	43
115	155	17,50	U 317	53
115	155	17,50	U 317	56
115	165	21	U 415	53
116	21,50		HJ 415	36
117	18,50		HJ 317	36
117	22		HJ 2317	36
120	14		HJ 219	36
120	150	16	61824	4
120	150	16	61824-2RS	7
120	150	16	61824-2RZ	9
120	155	25	51124	51
120	160	18	U 318	53
120	165	22	61924	4
120	165	29	32924	43
120	165	45	NNU 4924 K/SPW33	37
120	165	45	NNU 4924 SPW33	37
120	165	54	234924	57
120	170	39	51224	51
120	170	46	53224	52
120	180	19	16024	4
120	180	28	6024	4
120	180	28	6024-Z	5
120	180	28	6024-ZZ	6
120	180	28	6024-2RS	7
120	180	28	6024-RS	8
120	180	28	6024 N	11
120	180	28	6024 NR	12
120	180	28	7024 B	17
120	180	28	NU 1024	32
120	180	38	32024	43
120	180	46	NN 3024 KTN9/SP	38
120	180	46	NN 3024 TN9/SP	38
120	180	46	23024	45
120	180	46	23024 K	46
120	180	46	23024-2RS	47
120	180	48	33024	43
120	180	60	24024	45
120	180	60	24024 K30	46
120	180	60	24024-2RS	47
120	180	72	234424	57
120	180	76	32024 X/DF	44
120	180	80	SL045024-PP	39
120	180	96	33024/DFC250	44
120	180	105	FC 2436105	40
120	200	62	23124	45
120	200	62	23124 K	46

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
120	200	80	NNU 4124 K30M/W33	37
120	200	80	NNU 4124 M/W33	37
120	200	80	24124	45
120	200	80	24124 K30	46
120	200	80	24124-2RS	47
120	200	81	52228	54
120	210	54	29324 M	58
120	210	70	51324 M	51
120	210	80	53324 M	52
120	215	40	6224	4
120	215	40	6224-Z	5
120	215	40	6224-ZZ	6
120	215	40	7224 B	17
120	215	40	QJ 224 N2M	22
120	215	40	NU 224	32
120	215	40	NJ 224	33
120	215	40	NUP 224	34
120	215	40	N 224	35
120	215	42	1224 KM	24
120	215	43,50	30224	43
120	215	45	1224 M	23
120	215	58	NU 2224	32
120	215	58	NJ 2224	33
120	215	58	NUP 2224	34
120	215	58	22224	45
120	215	58	22224 K	46
120	215	58	23224 K	46
120	215	61,50	32224	43
120	215	69	22224-2RS	47
120	215	76	23224	45
120	215	87	30224J/DF	44
120	215	123	32224 J/DF	44
120	250	78	29424 M	58
120	250	102	51424 M	51
120	260	55	6324	4
120	260	55	7324 B	17
120	260	55	QJ 324 N2 M	22
120	260	55	NU 324	32
120	260	55	NJ 324	33
120	260	55	NUP 324	34
120	260	55	N 324	35
120	260	59,50	30324	43
120	260	68	31324	43
120	260	86	QJ 2324 N2	22
120	260	86	NU 2324	32
120	260	86	NJ 2324	33
120	260	86	NUP 2324	34
120	260	86	22324	45
120	260	86	22324 K	46
120	260	86	22324 VA	49
120	260	86	22324 KVA	50
120	260	90,50	32324	43
120	260	106	3324	19
120	260	119	30324J/DFC600	44
120	260	136	31324 XJ/DF	44
120	310	72	NU 424	32

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
122	22		HJ 416	36
124	18,50		HJ 318	36
124	22		HJ 2318	36
125	155	14	U 220	53
125	175	22	U 416	56
126	24		HJ 417	36
127	15		HJ 220	36
127	16		HJ 2220	36
127	182,562	39,688	48290/48220	43
127	196,85	46,038	67388/67322	43
130	165	18	61826	4
130	165	18	61826-2RS	7
130	165	18	61826-2RZ	9
130	170	30	51126	51
130	180	24	61926	4
130	180	32	32926	43
130	180	50	NNU 4926 K/SPW33	37
130	180	50	NNU 4926 SPW33	37
130	180	60	234926	57
130	180	64	32926/DF	44
130	190	45	51226	51
130	190	53	53226	52
130	190	80	SL04130-PP	39
130	200	22	16026	4
130	200	33	6026	4
130	200	33	6026-Z	5
130	200	33	6026-ZZ	6
130	200	33	6026-2RS	7
130	200	33	6026-RS	8
130	200	33	NU 1026	32
130	200	45	32026	43
130	200	52	NN 3026 KTN9/SP	38
130	200	52	NN 3026 TN9/SP	38
130	200	52	23026	45
130	200	52	23026 K	46
130	200	52	23026-2RS	47
130	200	69	24026	45
130	200	69	24026 K30	46
130	200	69	24026-2RS	47
130	200	84	234426	57
130	200	90	32026 X/DF	44
130	200	95	SL045026-PP	39
130	200	125	FC 2640125	40
130	210	64	23126	45
130	210	64	23126 K	46
130	210	80	NNU 4126 K30M/W33	37
130	210	80	NNU 4126 M/W33	37
130	210	80	24126	45
130	210	80	24126 K30	46
130	210	80	24126-2RS	47
130	215	89	52230 M	54
130	225	58	29326 M	58
130	225	75	51326 M	51
130	230	40	6226	4
130	230	40	6226-Z	5
130	230	40	6226-ZZ	6

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
130	230	40	7226 B	17
130	230	40	QJ 226 N2M	22
130	230	40	NU 226	32
130	230	40	NJ 226	33
130	230	40	NUP 226	34
130	230	40	N 226	35
130	230	46	1226 M	23
130	230	53	30226	43
130	230	64	NU 2226	32
130	230	64	NJ 2226	33
130	230	64	NUP 2226	34
130	230	64	22226	45
130	230	64	22226 K	46
130	230	67,10	32226	43
130	230	80	23226	45
130	230	80	23226 K	46
130	230	87,50	30226 J/DF	44
130	230	135,50	32226 J/DF	44
130	270	85	29426 M	58
130	270	110	51426 M	51
130	280	58	6326 M	4
130	280	58	7326 B	17
130	280	58	QJ 326 N2 M	22
130	280	58	NU 326	32
130	280	58	NJ 326	33
130	280	58	NUP 326	34
130	280	58	N 326	35
130	280	63,75	30326	43
130	280	72	31326	43
130	280	93	QJ 2326 N2	22
130	280	93	NU 2326	32
130	280	93	NJ 2326	33
130	280	93	NUP 2326	34
130	280	93	22326	45
130	280	93	22326 K	46
130	280	93	22326 VA	49
130	280	93	22326 KVA	50
130	280	144	31326 XJ/DF	44
132	20,50		HJ 319	36
132	24,50		HJ 2319	36
133,35	196,85	46,038	67391/67322	43
134	17,50		HJ 221	36
135	165	14	U 222	53
135	175	18	U 320	53
139	20,50		HJ 320	36
139	23,50		HJ 2320	36
139,70	236,54	57,15	HM 231132/110	43
140	175	18	61828	4
140	175	18	61828-2RS	7
140	175	18	61828-2RZ	9
140	180	31	51128	51
140	190	24	61928 MA	4
140	190	32	32928	43
140	190	50	NNU 4928 K/SPW33	37
140	190	50	NNU 4928 SPW33	37
140	190	60	234928	57

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
140	195	25,50	U 418	53
140	200	46	51228	51
140	200	55	53228	52
140	200	80	SL04140-PP	39
140	210	22	16028	4
140	210	33	6028	4
140	210	33	6028-Z	5
140	210	33	6028-ZZ	6
140	210	33	6028-2RS	7
140	210	33	6028-RS	8
140	210	33	7028 B	17
140	210	33	NU 1028	32
140	210	45	32028	43
140	210	53	NN 3028 K/SPW33	38
140	210	53	NN 3028/SPW33	38
140	210	53	23028	45
140	210	53	23028 K	46
140	210	69	24028	45
140	210	69	24028 K30	46
140	210	69	24028-2RS	47
140	210	84	234428	57
140	210	90	32028 X/DF	44
140	210	95	SL045028-PP	39
140	210	125	FC 2842125	40
140	225	68	23128	45
140	225	68	23128 K	46
140	225	85	NNU 4128 K30M/W33	37
140	225	85	NNU 4128 M/W33	37
140	225	85	24128	45
140	225	85	24128 K30	46
140	225	85	24128-2RS	47
140	225	90	52232 M	54
140	240	60	29328 M	58
140	240	80	51328 M	51
140	250	42	6228	4
140	250	42	7228 B	17
140	250	42	QJ 228 N2M	22
140	250	42	NU 228	32
140	250	42	NJ 228	33
140	250	42	NUP 228	34
140	250	42	N 228	35
140	250	45,75	30228	43
140	250	68	NU 2228	32
140	250	68	NJ 2228	33
140	250	68	NUP 2228	34
140	250	68	22228	45
140	250	68	22228 K	46
140	250	71,50	32228	43
140	250	88	23228	45
140	250	88	23228 K	46
140	250	88	23228-2RS	47
140	250	91,50	30228J/DFC100	44
140	250	143,50	32228 J/DF	44
140	280	85	29428 M	58
140	280	112	51428 M	51
140	300	62	6328 M	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
140	300	62	7328 B	17
140	300	62	QJ 328 N2 M	22
140	300	62	NU 328	32
140	300	62	NJ 328	33
140	300	62	NUP 328	34
140	300	67,75	30328	43
140	300	77	31328	43
140	300	102	NU 2328	32
140	300	102	NJ 2328	33
140	300	102	NUP 2328	34
140	300	102	22328	45
140	300	102	22328 K	46
140	300	102	22328 VA	49
140	300	102	22328 KVA	50
140	300	154	31328 XJ/DF	44
141	17		HJ 222	36
145	175	15	U 224	53
145	210	155	FC 2942155	40
150	190	20	61830	4
150	190	31	51130 M	51
150	195	20,50	U 322	53
150	210	28	61930 MA	4
150	210	60	NNU 4930 K/SPW33	37
150	210	60	NNU 4930 SPW33	37
150	210	72	234930	57
150	210	80	SL04150-PP	39
150	215	39	29230 M	58
150	215	50	51230 M	51
150	225	24	16030	4
150	225	35	6030	4
150	225	35	6030-Z	5
150	225	35	6030-ZZ	6
150	225	35	6030-2RS	7
150	225	35	6030-RS	8
150	225	35	7030 B	17
150	225	35	QJ 1030	22
150	225	35	NU 1030	32
150	225	48	32030	43
150	225	56	1330	23
150	225	56	NN 3030 K/SPW33	38
150	225	56	NN 3030/SPW33	38
150	225	56	23030	45
150	225	56	23030 K	46
150	225	59	33030	43
150	225	75	24030	45
150	225	75	24030 K30	46
150	225	75	24030-2RS	47
150	225	90	234430	57
150	225	96	32030 X/DF	44
150	225	100	SL045030-PP	39
150	225	120	FC 3045120	40
150	225	120	FCD 3045120	41
150	230	156	FC 3046156	40
150	240	97	52234 M	54
150	250	60	29330 M	58
150	250	80	23130	45

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
150	250	80	23130 K	46
150	250	80	51330 M	51
150	250	98	52236 M	54
150	250	100	NNU 4130 K30M/W33	37
150	250	100	NNU 4130 M/W33	37
150	250	100	24130	45
150	250	100	24130 K30	46
150	250	100	24130-2RS	47
150	270	45	6230	4
150	270	45	7230 B	17
150	270	45	QJ 230 N2M	22
150	270	45	NU 230	32
150	270	45	NJ 230	33
150	270	45	NUP 230	34
150	270	57	30230	43
150	270	73	NU 2230	32
150	270	73	NJ 2230	33
150	270	73	22230	45
150	270	73	22230 K	46
150	270	77	32230	43
150	270	96	23230	45
150	270	96	23230 K	46
150	270	154	32230 J/DF	44
150	300	90	29430 M	58
150	300	120	51430 M	51
150	320	65	6330 M	4
150	320	65	7330 B	17
150	320	65	QJ 330 N2 M	22
150	320	65	NU 330	32
150	320	65	NJ 330	33
150	320	72	30330	43
150	320	82	31330	43
150	320	108	NU 2330	32
150	320	108	NJ 2330	33
150	320	108	NUP 2330	34
150	320	108	22330	45
150	320	108	22330 K	46
150	320	108	22330K	46
150	320	108	22330 VA	49
150	320	108	22330 KVA	50
150	320	164	31330 XJ/DF	44
153	17		HJ 224	36
153	20		HJ 2224	36
153	27		HJ 420	36
155	22		HJ 322	36
155	26,50		HJ 2322	36
155	220	27	U420	53
155	220	27	U 420	56
158,75	205,583	23,812	L 432348/310	43
158,75	205,583	23,812	L 432349/310	43
160	195	17	U 226	53
160	200	20	61832	4
160	200	31	51132 M	51
160	220	28	61932 MA	4
160	220	60	NNU 4932 K/SPW33	37
160	220	60	NNU 4932 SPW33	37

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
160	220	72	234932	57
160	220	80	SL04160-PP	39
160	225	51	51232 M	51
160	230	130	FC 3246130	40
160	240	25	16032	4
160	240	38	6032 M	4
160	240	38	6032-Z	5
160	240	38	6032-ZZ	6
160	240	38	6032-2RS	7
160	240	38	6032-RS	8
160	240	38	QJ 1032	22
160	240	38	NU 1032	32
160	240	51	32032	43
160	240	60	NN 3032 K/SPW33	38
160	240	60	NN 3032/SPW33	38
160	240	60	23032	45
160	240	60	23032 K	46
160	240	80	24032	45
160	240	80	24032 K30	46
160	240	80	24032-2RS	47
160	240	96	234432	57
160	240	102	32032 X/DF	44
160	240	109	SL045032-PP	39
160	240	124	FC 3248124	40
160	240	168	FC 3248168	40
160	270	67	29332 M	58
160	270	86	23132	45
160	270	86	23132 K	46
160	270	86	23132-2RS	47
160	270	87	51332 M	51
160	270	109	NNU 4132 K30M/W33	37
160	270	109	NNU 4132 M/W33	37
160	270	109	24132	45
160	270	109	24132 K30	46
160	290	48	6232	4
160	290	48	7232 B	17
160	290	48	QJ 232 N2M	22
160	290	48	NU 232	32
160	290	48	NJ 232	33
160	290	48	NUP 232	34
160	290	48	N 232	35
160	290	52	30232	43
160	290	80	NU 2232	32
160	290	80	NJ 2232	33
160	290	80	22232	45
160	290	80	22232 K	46
160	290	84	32232	43
160	290	104	30232 J/DF	44
160	290	104	23232	45
160	290	104	23232 K	46
160	290	168	32232 J/DF	44
160	320	95	29432 M	58
160	340	68	6332 M	4
160	340	68	QJ 332 N2 M	22
160	340	68	NU 332	32
160	340	68	NJ 332	33

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
160	340	75	30332	43
160	340	114	NU 2332	32
160	340	114	NJ 2332	33
160	340	114	22332	45
160	340	114	22332 K	46
160	340	114	22332 VA	49
160	340	114	22332 KVA	50
164	17		HJ 226	36
164	21		HJ 2226	36
165	220	22	U 324	53
168	22,50		HJ 324	36
168	26		HJ 2324	36
170	182	240	350980 C	59
170	210	17	U 228	53
170	215	22	61834	4
170	215	34	51134 M	51
170	230	28	61934 MA	4
170	230	38	32934	43
170	230	60	NNU 4934 K/SPW33	37
170	230	60	NNU 4934 SPW33	37
170	230	72	234934	57
170	230	76	32934/DFC225	44
170	230	160	FCD 3446160	41
170	240	55	51234 M	51
170	250	170	FC 3450170	40
170	260	28	16034	4
170	260	42	6034 M	4
170	260	42	7034 B	17
170	260	42	QJ 1034	22
170	260	42	NU 1034	32
170	260	57	32034	43
170	260	67	NN 3034 K/SPW33	38
170	260	67	NN 3034/SPW33	38
170	260	67	23034	45
170	260	67	23034 K	46
170	260	90	24034	45
170	260	90	24034 K30	46
170	260	90	24034-2RS	47
170	260	108	234434	57
170	260	114	32034 X/DF	44
170	260	120	FC 3452120	40
170	260	150	FC 3452150	40
170	280	67	29334 M	58
170	280	87	51334 M	51
170	280	88	23134	45
170	280	88	23134 K	46
170	280	109	NNU 4134 K30M/W33	37
170	280	109	NNU 4134 M/W33	37
170	280	109	24134	45
170	280	109	24134 K30	46
170	280	109	24134-2RS	47
170	310	52	6234 M	4
170	310	52	7234 B	17
170	310	52	QJ 234 N2 M	22
170	310	52	NU 234	32
170	310	52	NJ 234	33

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
170	310	52	NUP 234	34
170	310	57	30234	43
170	310	86	NU 2234	32
170	310	86	22234	45
170	310	86	22234 K	46
170	310	91	32234	43
170	310	110	23234	45
170	310	110	23234 K	46
170	310	182	32234 J/DF	44
170	340	103	29434 M	58
170	360	72	6334 M	4
170	360	72	7334 B	17
170	360	72	QJ 334 N2 M	22
170	360	72	NU 334	32
170	360	72	N 334	35
170	360	80	30334	43
170	360	120	NU 2334	32
170	360	120	NJ 2334	33
170	360	120	22334	45
170	360	120	22334 K	46
170	360	120	22334 VA	49
170	360	120	22334 KVA	50
171	29,50		HJ 422	36
177,80	227,012	30,162	36990/36920	43
179	18		HJ 228	36
179	23		HJ 2228	36
180	192	280	353162	59
180	225	22	61836	4
180	225	34	51136 M	51
180	250	33	61936 MA	4
180	250	42	29236 M	58
180	250	45	32936	43
180	250	52	23936	45
180	250	52	23936 K	46
180	250	56	51236 M	51
180	250	69	NNU 4936 K/SPW33	37
180	250	69	NNU 4936 SPW33	37
180	250	84	234936	57
180	250	90	32936/DF	44
180	260	124	FC 3652124	40
180	260	168	FC 3652168	40
180	260	180	FC 3652180	40
180	280	31	16036	4
180	280	46	6036 M	4
180	280	46	7036 B	17
180	280	46	QJ 1036	22
180	280	46	NU 1036	32
180	280	64	32036	43
180	280	74	1336	23
180	280	74	N3036K/3424	37
180	280	74	NN 3036 K/SPW33	38
180	280	74	NN 3036/SPW33	38
180	280	74	23036	45
180	280	74	23036 K	46
180	280	100	24036	45
180	280	100	24036 K30	46

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
180	280	100	24036-2RS	47
180	280	120	234436	57
180	280	128	32036 X/DF	44
180	300	73	29336 M	58
180	300	95	51336 M	51
180	300	96	23136	45
180	300	96	23136 K	46
180	300	118	NNU 4136 K30M/W33	37
180	300	118	NNU 4136 M/W33	37
180	300	118	24136	45
180	300	118	24136 K30	46
180	320	52	6236 M	4
180	320	52	7236 B	17
180	320	52	QJ 236 N2 M	22
180	320	52	NU 236	32
180	320	52	NJ 236	33
180	320	52	NUP 236	34
180	320	57	30236	43
180	320	86	NU 2236	32
180	320	86	NJ 2236	33
180	320	86	22236	45
180	320	86	22236 K	46
180	320	91	32236	43
180	320	112	23236	45
180	320	112	23236 K	46
180	320	114	30236 J/DF	44
180	320	182	32236 J/DF	44
180	360	109	29436 M	58
180	360	140	51436	51
180	380	75	6336 M	4
180	380	75	7336 B	17
180	380	75	QJ 336 N2 M	22
180	380	75	NU 336	32
180	380	126	NU 2336	32
180	380	126	22336	45
180	380	126	22336 K	46
180	380	126	22336 VA	49
180	380	126	22336 KVA	50
181	23		HJ 326	36
181	28		HJ 2326	36
188	19		HJ 1032	36
188	30,50		HJ 424	36
190	240	24	61838	4
190	240	37	51138 M	51
190	260	33	61938 MA	4
190	260	45	32938	43
190	260	52	23938	45
190	260	52	23938 K	46
190	260	69	NNU 4938 K/SPW33	37
190	260	69	NNU 4938 SPW33	37
190	260	84	234938	57
190	260	90	32938/DF	44
190	270	62	51238 M	51
190	270	168	FC 3854168	40
190	270	170	FC 3854170	40
190	270	200	FC 3854200	40

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
190	290	31	16038	4
190	290	46	6038 M	4
190	290	46	7038 B	17
190	290	46	QJ 1038	22
190	290	46	NU 1038	32
190	290	64	32038	43
190	290	75	N3038K342460	37
190	290	75	NN 3038 K/SPW33	38
190	290	75	NN 3038/SPW33	38
190	290	75	23038	45
190	290	75	23038 K	46
190	290	100	24038	45
190	290	100	24038 K30	46
190	290	120	234438	57
190	290	128	32038 X/DF	44
190	320	78	29338 M	58
190	320	104	23138	45
190	320	104	23138 K	46
190	320	105	51338 M	51
190	320	128	NNU 4138 K30M/W33	37
190	320	128	NNU 4138 M/W33	37
190	320	128	24138	45
190	320	128	24138 K30	46
190	320	128	24138-2RS	47
190	340	55	6238 M	4
190	340	55	7238 B	17
190	340	55	NU 238	32
190	340	55	NJ 238	33
190	340	55	NUP 238	34
190	340	60	30238	43
190	340	92	NU 2238	32
190	340	92	22238	45
190	340	92	22238 K	46
190	340	120	30238 J/DFC700	44
190	340	120	23238	45
190	340	120	23238 K	46
190	380	115	29438 M	58
190	400	78	6338 M	4
190	400	78	7338 B	17
190	400	78	QJ 338 N2 M	22
190	400	78	NU 338	32
190	400	132	NU 2338	32
190	400	132	22338	45
190	400	132	22338 K	46
190	400	132	22338 VA	49
190	400	132	22338 KVA	50
191,237	279,40	52,388	M 239448 A/410	43
193	19,50		HJ 230	36
194	24,50		HJ 2230	36
195	25		HJ 328	36
195	31		HJ 2328	36
196,85	241,30	23,812	LL 639249/210	43
200	60	98	NU 2240	32
200	60	98	22240 K	46
200	250	24	61840	4
200	250	37	51140 M	51

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
200	250	50	NNU 4840 K/W33	37
200	250	50	NNU 4840/W33	37
200	270	170	FC 4054170	40
200	280	38	61940 MA	4
200	280	48	29240 M	58
200	280	51	32940	43
200	280	60	1340	23
200	280	60	23940	45
200	280	60	23940 K	46
200	280	62	51240 M	51
200	280	80	NNU 4940 K/SPW33	37
200	280	80	NNU 4940 SPW33	37
200	280	96	234940	57
200	280	188	FC 4056188	40
200	290	192	FC 4058192	40
200	300	102	32944/DFC300	44
200	310	34	16040	4
200	310	51	6040 M	4
200	310	51	7040 B	17
200	310	51	QJ 1040	22
200	310	51	NU 1040	32
200	310	70	32040	43
200	310	82	N3040K/342460	37
200	310	82	NN 3040 K/SPW33	38
200	310	82	NN 3040/SPW33	38
200	310	82	23040	45
200	310	82	23040 K	46
200	310	109	24040	45
200	310	109	24040 K30	46
200	310	132	234440	57
200	310	140	32040 X/DF	44
200	340	85	29340 M	58
200	340	110	51340 M	51
200	340	112	23140	45
200	340	112	23140 K	46
200	340	140	NNU 4140 K30M/W33	37
200	340	140	NNU 4140 M/W33	37
200	340	140	24140	45
200	340	140	24140 K30	46
200	340	140	24140-2RS	47
200	340	144	234444	57
200	340	152	32044 X/DF	44
200	360	58	6240 M	4
200	360	58	QJ 240 N2 M	22
200	360	58	NU 240	32
200	360	58	NJ 240	33
200	360	58	NUP 240	34
200	360	64	30240	43
200	360	98	22240	45
200	360	104	32240	43
200	360	128	30240J/DFC570	44
200	360	128	23240	45
200	360	128	23240 K	46
200	360	128	23240-2RS	47
200	360	208	32240J/DF	44
200	400	122	29440 M	58

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
200	420	80	NU 340	32
200	420	138	NU 2340	32
200	420	138	NJ 2340	33
200	420	138	22340	45
200	420	138	22340 K	46
200	420	138	22340 VA	49
200	420	138	22340 KVA	50
201	21		HJ 1034	36
205	24,50		HJ 2232	36
206	20		HJ 232	36
209	25		HJ 330	36
210	300	170	FC 4260170	40
210	300	210	FC 4260210	40
215	22,50		HJ 1036	36
216,408	285,75	46,038	LM 742747/710	43
220	20		HJ 234	36
220	24		HJ 2234	36
220	231	300	351019 C	59
220	270	24	61844	4
220	270	37	51144 M	51
220	300	38	61944 MA	4
220	300	48	29244 M	58
220	300	51	32944	43
220	300	60	1344	23
220	300	60	23944	45
220	300	60	23944 K	46
220	300	60	23944-2RS	47
220	300	63	51244 M	51
220	300	80	NNU 4944 K/SPW33	37
220	300	80	NNU 4944 SPW33	37
220	300	96	234944	57
220	310	192	FC 4462192	40
220	310	225	FC 4462225	40
220	320	210	FCD 4464210	41
220	340	37	16044	4
220	340	37	6044 M	4
220	340	56	7044 B	17
220	340	56	QJ 1044	22
220	340	56	NU 1044	32
220	340	76	32044	43
220	340	90	N3044K/342460	37
220	340	90	NN 3044 K/SPW33	38
220	340	90	NN 3044/SPW33	38
220	340	90	23044	45
220	340	90	23044 K	46
220	340	118	24044	45
220	340	118	24044 K30	46
220	360	85	29344 M	58
220	360	144	234448	57
220	370	120	23144	45
220	370	120	23144 K	46
220	370	150	NNU 4144 K30M/W33	37
220	370	150	NNU 4144 M/W33	37
220	370	150	24144	45
220	370	150	24144 K30	46
220	400	65	6244 M	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
220	400	65	7244 B	17
220	400	65	NU 244	32
220	400	65	NJ 244	33
220	400	65	NUP 244	34
220	400	72	30244	43
220	400	78	QJ 1244	22
220	400	108	NU 2244	32
220	400	108	22244	45
220	400	108	22244 K	46
220	400	114	32244	43
220	400	144	23244	45
220	400	144	23244 K	46
220	420	122	29444 M	58
220	460	88	6344 M	4
220	460	88	QJ 344 N2	22
220	460	88	NU 344	32
220	460	88	NJ 344	33
220	460	145	NU 2344	32
220	460	145	22344	45
220	460	145	22344 K	46
220	460	145	22344 VA	49
220	460	145	22344 KVA	50
221	25		HJ 332	36
225	22,50		HJ 1038	36
229	24		HJ 2236	36
230	20		HJ 236	36
230	330	206	FC 4666206	40
230	340	260	FC 4668260	40
230,188	317,50	47,625	LM 245846/810	43
231,775	317,50	47,625	LM 245848/810	43
239	25,50		HJ 1040	36
240	251	320	351182C	59
240	300	28	61848	4
240	300	45	51148 M	51
240	300	60	NNU 4848 K/W33	37
240	300	60	NNU 4848/W33	37
240	320	38	61948 MA	4
240	320	51	32948	43
240	320	60	1348	23
240	320	60	23948	45
240	320	60	23948 K	46
240	320	80	NNU 4948 K/SPW33	37
240	320	80	NNU 4948 SPW33	37
240	320	96	234948	57
240	330	220	FC 4866220	40
240	340	60	29248 M	58
240	340	78	51248 M	51
240	360	37	16048 MA	4
240	360	56	6048 M	4
240	360	56	7048 B	17
240	360	56	QJ 1048	22
240	360	56	NU 1048	32
240	360	76	32048	43
240	360	92	N3048K/342460	37
240	360	92	NN 3048 K/SPW33	38
240	360	92	NN 3048/SPW33	38

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
240	360	92	23048	45
240	360	92	23048 K	46
240	360	118	24048	45
240	360	118	24048 K30	46
240	360	152	32048 X/DF	44
240	360	200	FC 4872220	40
240	380	85	29348 M	58
240	400	128	23148	45
240	400	128	23148 K	46
240	400	160	NNU 4148 K30M/W33	37
240	400	160	NNU 4148 M/W33	37
240	400	160	24148	45
240	400	160	24148 K30	46
240	420	164	234456	57
240	440	72	6248 M	4
240	440	72	7248 B	17
240	440	72	QJ 248 N2	22
240	440	72	NU 248	32
240	440	72	NJ 248	33
240	440	72	NUP 248	34
240	440	85	QJ 1248	22
240	440	120	NU 2248	32
240	440	120	NJ 2248	33
240	440	120	22248	45
240	440	120	22248 K	46
240	440	122	29448 M	58
240	440	127	32248	43
240	440	160	23248	45
240	440	160	23248 K	46
240	500	95	6348 M	4
240	500	95	NU 348	32
240	500	95	NJ 348	33
240	500	155	NU 2348	32
240	500	155	22348	45
240	500	155	22348 K	46
240	500	155	22348 VA	49
240	500	155	22348 KVA	50
244	21,50		HJ 238	36
250	265	380	353005	59
250	350	220	FC 5070220	40
255,60	342,90	57,15	M 349547/510	43
257,175	358,775	71,438	M 249747/710	43
258	23		HJ 240	36
260	276	360	350981 C	59
260	320	28	61852	4
260	320	45	51152 M	51
260	360	46	61952 MA	4
260	360	46	71952 A	17
260	360	46	QJ 1952 N2	22
260	360	60	29252 M	58
260	360	75	23952	45
260	360	75	23952 K	46
260	360	79	51252M	51
260	360	100	NNU 4952 K/SPW33	37
260	360	100	NNU 4952 SPW33	37
260	370	200	FC 5274200	40

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
260	370	220	FC 5274220	40
260	370	220	FC 5274220A	40
260	400	44	16052 MA	4
260	400	65	6052 M	4
260	400	65	NU 1052	32
260	400	87	32052	43
260	400	104	N3052K/342460	37
260	400	104	NN 3052 K/SPW33	38
260	400	104	NN 3052/SPW33	38
260	400	104	23052	45
260	400	104	23052 K	46
260	400	140	NNU 4052 KM/W33	37
260	400	140	NNU 4052 M/W33	37
260	400	140	24052	45
260	400	140	24052 K30	46
260	400	145	FCD 5280290	41
260	400	174	32052 X/DF	44
260	420	95	29352 M	58
260	440	144	23152	45
260	440	144	23152 K	46
260	440	180	NNU 4152 K30M/W33	37
260	440	180	NNU 4152 M/W33	37
260	440	180	24152	45
260	440	180	24152 K30	46
260	480	80	6252 M	4
260	480	80	NU 252	32
260	480	80	NJ 252	33
260	480	80	NUP 252	34
260	480	90	QJ 1252	22
260	480	130	NU 2252	32
260	480	130	NJ 2252	33
260	480	130	22252	45
260	480	130	22252 K	46
260	480	132	29452 M	58
260	480	137	32252	43
260	480	174	23252	45
260	480	174	23252 K	46
260	480	175	51452	51
260	540	102	6352 M	4
260	540	102	NU 352	32
260	540	113	30352	43
260	540	165	22352	45
260	540	165	22352 K	46
262	27		HJ 1044	36
263,525	325,438	28,575	38880/38820	43
264	29		HJ 338	36
266,70	355,60	57,15	KLM451349/KLM451310	43
266,70	393,70	73,817	KEE275105/K275155	43
270	300	450	351164C	59
270	380	230	FC 5476230	40
273,05	393,70	73,817	KEE275108/K275155	43
280	350	33	61856	4
280	350	53	51156 M	51
280	350	69	NNU 4856 K/W33	37
280	350	69	NNU 4856/W33	37
280	380	46	61956 MA	4

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
280	380	46	71956 A	17
280	380	60	29256 M	58
280	380	63,50	32956	43
280	380	75	23956	45
280	380	75	23956 K	46
280	380	80	51256 M	51
280	380	100	NNU 4956 K/SPW33	37
280	380	100	NNU 4956 SPW33	37
280	380	120	234956	57
280	390	220	FC 5678220	40
280	390	240	FC 5678240	40
280	420	44	16056 MA	4
280	420	65	6056 M	4
280	420	65	7056 A	17
280	420	65	7056 B	17
280	420	65	QJ 1056	22
280	420	65	NU 1056	32
280	420	87	32056	43
280	420	106	NN 3056 K/SPW33	38
280	420	106	NN 3056/SPW33	38
280	420	106	23056	45
280	420	106	23056 K	46
280	420	140	NNU 4056 KM/W33	37
280	420	140	NNU 4056 M/W33	37
280	420	140	24056	45
280	420	140	24056 K30	46
280	420	174	32056 X/DF	44
280	420	280	FC 5684280	40
280	440	95	29356 M	58
280	460	146	23156	45
280	460	146	23156 K	46
280	460	180	NNU 4156 K30M/W33	37
280	460	180	NNU 4156 M/W33	37
280	460	180	24156	45
280	460	180	24156 K30	46
280	500	80	6256 M	4
280	500	80	7256 B	17
280	500	80	NU 256	32
280	500	80	NJ 256	33
280	500	130	NU 2256	32
280	500	130	22256	45
280	500	130	22256 K	46
280	500	176	23256	45
280	500	176	23256 K	46
280	520	145	29456 M	58
280	580	175	NU 2356	32
280	580	175	22356	45
280	580	175	22356 K	46
282	27		HJ 1048	36
284	25		HJ 244	36
288,925	406,40	77,788	M255449/M255410	43
292,10	374,65	47,625	L555249/L555210	43
300	380	38	61860 MA	4
300	380	62	51160 M	51
300	380	80	NNU 4860 K/W33	37
300	380	80	NNU 4860/W33	37

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
300	380	90	23860	45
300	380	90	23860 K	46
300	420	56	61960 MA	4
300	420	73	29260 M	58
300	420	76	32960	43
300	420	90	23960	45
300	420	90	23960 K	46
300	420	95	51260 M	51
300	420	118	NNU 4960 K/SPW33	37
300	420	118	NNU 4960 SPW33	37
300	420	144	234960	57
300	420	152	32960/DF	44
300	420	240	FC 6084240	40
300	420	300	FCD 6084300	41
300	460	50	16060 MA	4
300	460	74	6060 M	4
300	460	74	7060 A	17
300	460	74	7060 B	17
300	460	74	NU 1060	32
300	460	74	NJ 1060	33
300	460	100	32060	43
300	460	118	NN 3060 K/SPW33	38
300	460	118	NN 3060/SPW33	38
300	460	118	23060	45
300	460	118	23060 K	46
300	460	160	NNU 4060 KM/W33	37
300	460	160	NNU 4060 M/W33	37
300	460	160	24060	45
300	460	160	24060 K30	46
300	460	190	234460	57
300	480	109	29360 M	58
300	500	160	23160	45
300	500	160	23160 K	46
300	500	200	NNU 4160 K30M/W33	37
300	500	200	NNU 4160 M/W33	37
300	500	200	24160	45
300	500	200	24160 K30	46
300	540	85	6260 M	4
300	540	85	NU 260	32
300	540	140	NU 2260	32
300	540	140	22260	45
300	540	140	22260 K	46
300	540	145	29460 M	58
300	540	149	32260	43
300	540	192	23260	45
300	540	192	23260 K	46
304,80	393,70	50,80	KL357049/KL357010	43
304,80	406,40	63,50	LM757049/LM757010	43
304,80	546,10	171,05	306/304.8	43
309	31,50		HJ 1052	36
317,50	447,675	85,725	HM259048/HM259010	43
320	340	470	350982 C	59
320	349	440	353102C	59
320	400	63	51164 M	51
320	400	80	NNU 4864 K/W33	37
320	400	80	NNU 4864/W33	37

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
320	440	56	61964 MA	4
320	440	73	29264 M	58
320	440	76	32964	43
320	440	90	23964	45
320	440	90	23964 K	46
320	440	95	51264 M	51
320	440	118	NNU 4964 K/SPW33	37
320	440	118	NNU 4964 SPW33	37
320	450	240	FC 6490240	40
320	460	340	FCD 6492340	41
320	480	50	16064 MA	4
320	480	74	6064 M	4
320	480	74	7064 A	17
320	480	74	QJ 1064	22
320	480	74	NU 1064	32
320	480	74	NJ 1064	33
320	480	100	32064	43
320	480	121	NN 3064 K/SPW33	38
320	480	121	23064	45
320	480	121	23064 K	46
320	480	160	NNU 4064 KM/W33	37
320	480	160	NNU 4064 M/W33	37
320	480	160	24064	45
320	480	160	24064 K30	46
320	480	200	32064 X/DF	44
320	500	109	29364 M	58
320	540	38	61864 MA	4
320	540	176	23164	45
320	540	176	23164 K	46
320	540	218	NNU 4164	37
320	540	218	NNU 4164 K30	37
320	540	218	24164 K30	46
320	580	92	NU 264	32
320	580	105	QJ 1264	22
320	580	150	NJ 2264	33
320	580	150	22264	45
320	580	150	22264 K	46
320	580	155	29464 M	58
320	580	208	23264	45
320	580	208	23264 K	46
320	580	218	24164	45
329	31,50		HJ 1056	36
330	460	340	FCD 6692340	41
330,20	482,60	85,725	EE526130/526190	43
333,375	469,90	90,488	HM261049/HM261010	43
335	39,50		HJ 348	36
340	33		HJ 252	36
340	420	38	61868 MA	4
340	420	64	51168M	51
340	420	80	NNU 4868 K/W33	37
340	420	80	NNU 4868/W33	37
340	450	250	FC 6890250	40
340	460	56	61968 MA	4
340	460	73	29268 M	58
340	460	76	32968	43
340	460	90	23968	45

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
340	460	90	23968 K	46
340	460	96	51268 M	51
340	460	118	NNU 4968 K/SPW33	37
340	460	118	NNU 4968 SPW33	37
340	480	350	FCD 6896350	41
340	520	57	16068 MA	4
340	520	82	6068 M	4
340	520	82	7068 B	17
340	520	82	QJ 1068	22
340	520	82	NU 1068	32
340	520	82	NJ 1068	33
340	520	133	NN 3068 K/SPW33	38
340	520	133	23068	45
340	520	133	23068 K	46
340	520	180	NNU 4068 KM/W33	37
340	520	180	NNU 4068 M/W33	37
340	520	180	24068	45
340	520	180	24068 K30	46
340	540	122	29368 M	58
340	540	160	51368	51
340	580	190	23168	45
340	580	190	23168 K	46
340	580	243	NNU 4168 K30M/W33	37
340	580	243	NNU 4168 M/W33	37
340	580	243	24168	45
340	580	243	24168 K30	46
340	620	92	7268 B	17
340	620	118	QJ 1268	22
340	620	165	NU 2268	32
340	620	170	29468 M	58
340	620	224	23268	45
340	620	224	23268 K	46
343,154	450,85	66,675	LM361649A/LM361610	43
346,075	488,95	95,25	HM262749/HM262710	43
350	38		HJ 2256	36
350	380	490	351100C	59
350	384	540	353006	59
350	500	410	FCDP 70100410	42
350	520	300	FC 70104300	40
355,60	482,60	60,32	306/355.6-1	43
356	36		HJ 1060	36
360	440	38	61872 MA	4
360	440	65	51172M	51
360	480	56	61972 MA	4
360	480	56	71972 B	17
360	480	76	32972	43
360	480	90	23972	45
360	480	90	23972 K	46
360	480	118	NNU 4972 SPW33	37
360	480	118	NNU 4972 K/SPW33	37
360	500	85	29272M	58
360	500	110	51272M	51
360	500	250	FC 72100250	40
360	510	370	FCD 72102370	41
360	530	80	30672	43
360	540	57	16072 MA	4

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
360	540	82	6072 M	4
360	540	82	7072 A	17
360	540	82	NU 1072	32
360	540	86	31072	43
360	540	134	NN 3072 K/SPW33	38
360	540	134	23072	45
360	540	134	23072 K	46
360	540	180	NNU 4072 KM/W33	37
360	540	180	NNU 4072 M/W33	37
360	540	180	24072	45
360	540	180	24072 K30	46
360	560	122	29372 M	58
360	600	192	23172	45
360	600	192	23172 K	46
360	600	243	NNU 4172 K30M	37
360	600	243	NNU 4172 M	37
360	600	243	24172	45
360	600	243	24172 K30	46
360	640	170	29472 M	58
360	650	95	7272 B	17
360	650	122	QJ 1272	22
360	650	170	NU 2272	32
360	650	170	22272	45
360	650	170	22272 K	46
360	650	232	23272	45
360	650	232	23272 K	46
365	540	300	FC 73108300	40
366	440	65	BD1B 634132	51
370	520	380	FCDP 74104380	42
376	36		HJ 1064	36
377,825	522,288	85,725	KLM565946/KLM565910	43
380	416	560	351175 C	59
380	460	36	351793	51
380	460	65	51176 M	51
380	480	31	70876 A	17
380	480	46	61876 MA	4
380	480	100	NNU 4876 K/W33	37
380	480	100	NNU 4876/W33	37
380	480	106	23976	45
380	520	65	61976 MA	4
380	520	65	71976 A	17
380	520	82	NU 1076	32
380	520	82	NJ 1076	33
380	520	85	29276 M	58
380	520	106	23976 K	46
380	520	112	51276 M	51
380	520	140	NNU 4976 K/SPW33	37
380	520	140	NNU 4976 SPW33	37
380	540	260	FCD 76108260	41
380	540	300	FCD 76108300	41
380	540	304	FC 76108304	40
380	540	340	FC 76108340	40
380	540	400	FCD 76108400	41
380	560	57	16076 MA	4
380	560	82	6076 M	4
380	560	135	NN 3076 K/SPW33	38

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
380	560	135	23076	45
380	560	135	23076 K	46
380	560	180	NNU 4076 KM/W33	37
380	560	180	NNU 4076 M/W33	37
380	560	180	24076	45
380	560	180	24076 K30	46
380	560	300	FCD 76112300	41
380	560	325	FCD 76112325	41
380	600	132	29376 M	58
380	620	175	NU 2276	32
380	620	194	23176	45
380	620	194	23176 K	46
380	620	243	NNU 4176 K30M	37
380	620	243	NNU 4176 M	37
380	620	243	24176	45
380	620	243	24176 K30	46
380	670	175	29476 M	58
380	680	132	QJ 1276	22
380	680	240	23276	45
380	680	240	23276 K	46
380,10	480	50	306/380.1	43
381	82,55	29,37	HM 801346/310	43
381	497,425	49,212	L865547/L865512	43
381	522,288	85,725	KLM565949/KLM565910	43
384,175	546,10	104,775	HM266449/HM266410	43
385	510	110	350550	51
390	540	320	FCD 78108320	41
400	43		HJ 1080	36
400	480	65	51180M	51
400	500	46	61880 MA	4
400	500	60	30680	43
400	500	100	NNU 4880 K/W33	37
400	500	100	NNU 4880/W33	37
400	540	65	61980 MA	4
400	540	85	29280 M	58
400	540	90	NU 1080	32
400	540	106	23980	45
400	540	106	23980 K	46
400	540	140	NNU 4980 K/SPW33	37
400	540	140	NNU 4980 SPW33	37
400	550	300	FC 80110300	40
400	560	300	FC 80112300	40
400	560	410	FCD 80112410	41
400	590	440	FCD 80114440	41
400	600	90	6080 M	4
400	600	148	NN 3080 K/SPW33	38
400	600	148	23080	45
400	600	148	23080 K	46
400	600	200	NNU 4080 K/W33	37
400	600	200	NNU 4080 W33	37
400	600	200	24080	45
400	600	200	24080 K30	46
400	620	132	29380 M	58
400	650	200	23180	45
400	650	200	23180 K	46
400	650	250	NNU 4180 K30M/W33	37

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
400	650	250	NNU 4180 M/W33	37
400	650	250	24180	45
400	650	250	24180 K30	46
400	710	185	29480 M	58
400	720	103	7280 B	17
400	720	256	23280	45
400	720	256	23280 K	46
400	750	130	30680-1	43
400	820	243	22380	45
400	820	243	22380 K	46
403,225	460,375	28,575	LL566848/LL566810	43
406,40	546,10	76,20	KEE234160/K234215	43
406,40	549,275	85,725	LM567949/LM567910	43
406,40	574,63	76,20	EE285160/EE285226	43
406,40	762	108,98	H969249/H969210	43
410	560	400	FCDP 82112400	42
410	600	440	FCDP 82120440	42
415,925	590,55	114,30	M268749/M268710	43
420	455	620	351121C	59
420	500	65	51184 M	51
420	520	46	61884 MA	4
420	520	100	NNU 4884 K/W33	37
420	520	100	NNU 4884/W33	37
420	560	65	61984 MA	4
420	560	65	71984 B	17
420	560	106	23984	45
420	560	106	23984 K	46
420	560	140	NNU 4984 K/SPW33	37
420	560	140	NNU 4984 SPW33	37
420	580	95	29284 M	58
420	580	130	51284	51
420	580	260	FCD 84116260	41
420	580	320	FCD 84116320	41
420	600	440	FCD 84120440	41
420	620	90	6084 M	4
420	620	90	7084 B	17
420	620	95	31084	43
420	620	95	31084P5	43
420	620	150	NN 3084 K/SPW33	38
420	620	150	23084	45
420	620	150	23084 K	46
420	620	200	NNU 4084 KM/W33	37
420	620	200	NNU 4084 M/W33	37
420	620	200	24084	45
420	620	200	24084 K30	46
420	650	90	NU 1084	32
420	650	140	29384 M	58
420	700	224	23184	45
420	700	224	23184 K	46
420	700	280	NNU 4184/316275	37
420	700	280	24184	45
420	700	280	24184 K30	46
420	730	185	29484 M	58
420	760	272	23284	45
420	760	272	23284 K	46
423	39,50		HJ 1072	36

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
430,212	603,25	76,20	EE241693/242375	43
440	480	645	353152	59
440	520	65	BD1B 634131	51
440	540	31	60888	4
440	540	46	61888 MA	4
440	540	80	51188M	51
440	540	100	NNU 4888 K/W33	37
440	540	100	NNU 4888/W33	37
440	560	94	NU 1088	32
440	600	50	60988	4
440	600	74	61988 MA	4
440	600	74	QJ 1988	22
440	600	95	29288 M	58
440	600	118	23988	45
440	600	118	23988 K	46
440	600	130	51288	51
440	620	450	FCDP 88124450	42
440	650	94	6088 M	4
440	650	157	23088	45
440	650	157	23088 K	46
440	650	212	NNU 4088 KM/W33	37
440	650	212	NNU 4088 M/W33	37
440	650	212	24088	45
440	650	212	24088 K30	46
440	650	355	FC 88130355	40
440	660	340	FC 88132340	40
440	680	145	29388 M	58
440	720	226	23188	45
440	720	226	23188 K	46
440	720	280	NNU 4188 K30M/W33	37
440	720	280	NNU 4188 M/W33	37
440	720	280	24188	45
440	720	280	24188 K30	46
440	780	206	29488 M	58
440	790	280	23288	45
440	790	280	23288 K	46
443	39,50		HJ 1068	36
443	39,50		HJ 1076	36
447,625	635	120,65	M270749/M270710	43
450	480	645	350916 D	59
450	590	300	FC 90114300	40
457,20	573,09	74,61	L570649/L570610	43
457,20	603,25	85,725	LM770949/LM770910	43
457,20	615,95	85,725	LM272235/LM272210	43
457,20	660,40	91,28	EE737181/737260	43
460	560	80	51192M	51
460	560	100	NU 1092	32
460	580	37	70892 A	17
460	580	56	61892 MA	4
460	580	118	NNU 4892 K/W33	37
460	580	118	NNU 4892/W33	37
460	580	118	24892	45
460	580	118	24892 K30	46
460	600	212	NU 2292	32
460	620	72	61992	4
460	620	74	61992 MA	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
460	620	95	29292 M	58
460	620	118	23992	45
460	620	118	23992 K	46
460	620	160	NNU 4992 K/SPW33	37
460	620	160	NNU 4992 SPW33	37
460	650	355	FCD 92130355	41
460	650	424	FCD 92130424	41
460	650	470	FCD 92130470	41
460	680	100	6092 MB	4
460	680	100	7092 A	17
460	680	100	QJ 1092	22
460	680	163	NN 3092 K/SPW33	38
460	680	163	23092	45
460	680	163	23092 K	46
460	680	165	NU 1292	32
460	680	218	NNU 4092 KM/W33	37
460	680	218	NNU 4092 M/W33	37
460	680	218	24092	45
460	680	218	24092 K30	46
460	680	400	FC 92136400	40
460	710	150	29392 M	58
460	760	240	23192	45
460	760	240	23192 K	46
460	760	300	NNU 4192 K30M	37
460	760	300	NNU 4192 M	37
460	760	300	24192	45
460	760	300	24192 K30	46
460	800	206	29492 M	58
460	830	296	23292	45
460	830	296	23292 K	46
460	860	210	30692	43
470	515	720	353151	59
480	580	80	51196M	51
480	600	56	61896 MA	4
480	600	90	23896	45
480	600	90	23896 K	46
480	620	100	NU 1096	32
480	650	78	61996 MA	4
480	650	103	29296 M	58
480	650	128	23996	45
480	650	128	23996 K	46
480	650	450	FCD 96130450	41
480	680	420	FCD 96136420	41
480	680	500	FCDP 96136500	42
480	700	100	6096 MB	4
480	700	165	23096	45
480	700	165	23096 K	46
480	700	218	NNU 4096 KM/W33	37
480	700	218	NNU 4096 M/W33	37
480	700	218	24096	45
480	700	218	24096 K30	46
480	730	150	29396 M	58
480	790	248	23196	45
480	790	248	23196K	46
480	790	308	NNU 4196 K30M/W33	37
480	790	308	NNU 4196 M/W33	37

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
480	790	308	24196	45
480	790	308	24196 K30	46
480	850	224	29496 M	58
480	870	310	23296	45
480	870	310	23296 K	46
480	950	250	30696	43
482,60	634,87	80,962	EE243190/243250	43
488,95	634,873	84,138	LM772748/LM772710	43
490	43		HJ 1084	36
498,475	634,873	80,962	EE243196/243250/HE	43
500	600	80	511/500M	51
500	620	37	608/500	4
500	620	37	708/500 A	17
500	620	56	618/500 MA	4
500	620	90	238/500	45
500	620	90	238/500 K	46
500	650	100	NU 10/500	32
500	650	260	FCD 100130260	41
500	660	75	619/500X3F1	4
500	670	78	619/500 MA	4
500	670	103	292/500 M	58
500	670	128	239/500	45
500	670	128	239/500 K	46
500	670	170	NNU 49/500 K/SPW33X	37
500	670	170	NNU 49/500 SPW33X	37
500	670	450	FCD 100132450	41
500	680	185	NU 12/500	32
500	680	450	FCD 100136450	41
500	710	480	FCDP 100142480	42
500	720	100	60/500 N1MAS	4
500	720	110	T2GB500	43
500	720	167	230/500	45
500	720	167	230/500 K	46
500	720	218	NNU 40/500 KM/W33	37
500	720	218	NNU 40/500 M/W33	37
500	720	218	240/500	45
500	720	218	240/500 K30	46
500	720	400	FC 100144400	40
500	738	500	FCD 100148500	41
500	750	150	293/500 M	58
500	830	264	231/500	45
500	830	264	231/500 K	46
500	830	325	NNU 41/500 K30M/W33	37
500	830	325	NNU 41/500 M/W33	37
500	830	325	241/500	45
500	830	325	241/500 K30	46
500	870	224	294/500 M	58
500	920	336	232/500	45
500	920	336	232/500 K	46
510	680	500	FCDP 102136500	42
510	730	520	FCD 102146520	41
510	760	550	FCDP 102152550	42
512	45		HJ 1088	36
520,70	736,60	88,90	EE982051/982900	43
530	560	710	351475 C	59
530	590	36	351794	51

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
530	640	85	511/530M	51
530	650	56	618/530 MA	4
530	650	118	248/530	45
530	650	118	248/530 K30	46
530	670	100	318/530	43
530	710	57	609/530	4
530	710	82	619/530MA	4
530	710	88	319/530	43
530	710	109	292/530 M	58
530	710	136	239/530	45
530	710	136	239/530 K	46
530	760	520	FCDP 106152520	42
530	780	11	60/530 N1MAS	4
530	780	112	70/530 B	17
530	780	112	NU 10/530	32
530	780	145	NU 20/530	32
530	780	185	230/530	45
530	780	185	230/530 K	46
530	780	250	NNU 40/530 KM/W33	37
530	780	250	NNU 40/530 M/W33	37
530	780	250	240/530	45
530	780	250	240/530 K30	46
530	780	500	FCD 106156500	41
530	780	570	FCD 106156570	41
530	800	160	293/530 M	58
530	870	272	231/530	45
530	870	272	231/530 K	46
530	870	335	NNU 41/530 K30M/W33	37
530	870	335	NNU 41/530 M/W33	37
530	870	335	241/530	45
530	870	335	241/530 K30	46
530	920	236	294/530 M	58
530	980	355	232/530	45
530	980	355	232/530 K	46
536,575	761,873	146,05	M276449/M276410	43
536,575	820	152	306/536X4	43
537	48		HJ 1092	36
539,75	635	50,80	LL575349/LL575310	43
545	635	65	BD1B634141	51
550	585	760	350976 C	59
550	740	510	FCDP 110148510	42
550	800	520	FCDP 110160520	42
557	48		HJ 1096	36
560	670	67	591/560	51
560	670	85	511/560M	51
560	680	37	608/560	4
560	680	56	618/560 MA	4
560	680	56	718/560 A	17
560	680	56	NJ 18/560	33
560	750	85	619/560 MA	4
560	750	85	719/560 A	17
560	750	115	292/560 M	58
560	750	140	239/560	45
560	750	140	239/560 K	46
560	800	600	FCDP 112160600	42
560	820	115	60/560 N1MAS	4

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
560	820	115	NU 10/560	32
560	820	150	NU 20/560	32
560	820	195	230/560	45
560	820	195	230/560 K	46
560	820	258	NNU 40/560 KM/W33	37
560	820	258	NNU 40/560 M/W33	37
560	820	258	240/560	45
560	820	258	240/560 K30	46
560	820	315	FCDP 112164630	42
560	820	600	FCDP 112164600	42
560	820	630	FCDP 112164630H	42
560	920	280	231/560	45
560	920	280	231/560 K	46
560	920	355	NNU 41/560 K30M/W33X	37
560	920	355	NNU 41/560 M/W33	37
560	920	355	241/560	45
560	920	355	241/560 K30	46
560	980	250	294/560 M	58
560	1030	206	NU 12/560	32
560	1030	365	232/560	45
560	1030	365	232/560 K	46
560	1080	265	306/560	43
570	750	530	FC 114150530	40
570	800	514	FCDP 114160514	42
570	815	594	FCDP 114163594	42
577	48		HJ 10/500	36
580	780	520	FCDP 116156486	42
580	780	521	FCDP 116156486	42
580	780	558	FCDP 116156486	42
590	820	590	FCDP 118164590	42
600	670	910	350901 C	59
600	710	67	591/600	51
600	710	85	511/600M	51
600	730	42	608/600	4
600	730	42	708/600 A	17
600	730	60	618/600 MA	4
600	740	90	350534	51
600	800	90	619/600 MA	4
600	800	90	NUP 19/600	34
600	800	90	350769	51
600	800	118	NU 29/600	32
600	800	118	NUP 29/600	34
600	800	122	292/600 M	58
600	800	150	239/600	45
600	800	150	239/600 K	46
600	800	200	NNU 49/600 K/SPW33X	37
600	800	200	NNU 49/600 SPW33X	37
600	820	575	FCDP 120164575	42
600	870	118	60/600/HC	4
600	870	118	70/600 A	17
600	870	118	NU 10/600	32
600	870	155	NU 20/600	32
600	870	200	N 30/600 K	35
600	870	200	230/600	45
600	870	200	230/600 K	46
600	870	272	NNU 40/600 KM/W33	37

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
600	870	272	NNU 40/600 M/W33	37
600	870	272	240/600	45
600	870	272	240/600 K30	46
600	870	540	FCDP 120174540	42
600	870	640	FCDP 120174640	42
600	900	180	293/600 M	58
600	980	300	231/600	45
600	980	300	231/600 K	46
600	980	375	NNU 41/600 K30M/W33	37
600	980	375	NNU 41/600 M/W33	37
600	980	375	241/600	45
600	980	375	241/600 K30	46
600	1030	258	294/600 M	58
600	1090	155	NU 12/600	32
600	1090	388	232/600	45
600	1090	388	232/600 K	46
607,72	787,40	93,662	EE649239/649310	43
609,60	787,40	93,662	EE649240/649310	43
630	750	95	511/630M	51
630	780	48	608/630	4
630	780	69	618/630 MA	4
630	780	88	NU 28/630	32
630	780	112	238/630	45
630	780	112	238/630 K	46
630	800	360	FCD 126160360	41
630	850	71	609/630	4
630	850	100	619/630 N1MA	4
630	850	132	329/630	43
630	850	132	292/630 M	58
630	850	165	239/630	45
630	850	165	239/630 K	46
630	850	436	FCD 126170436	41
630	920	128	60/630 N1MAS	4
630	920	128	NU 10/630	32
630	920	134	306/630	43
630	920	135	T3GB630	43
630	920	170	NU 20/630	32
630	920	212	NU 30/630	32
630	920	212	230/630	45
630	920	212	230/630 K	46
630	920	290	NNU 40/630 KM/W33	37
630	920	290	NNU 40/630 M/W33	37
630	920	290	240/630	45
630	920	290	240/630 K30	46
630	920	515	FCD 126184515	41
630	950	190	293/630 M	58
630	1030	315	231/630	45
630	1030	315	231/630 K	46
630	1030	400	NNU 41/630 K30M/W33	37
630	1030	400	NNU 41/630 M/W33	37
630	1030	400	241/630	45
630	1030	400	241/630 K30	46
630	1090	280	294/630 M	58
630	1150	230	NU 12/630	32
635	736,60	57,15	80780/80720	43
640	700	55	350015	51

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
640	880	600	FCDP 128176600	42
648	53		HJ 10/560	36
650	900	650	FCDP 130180650	42
650	920	670	FCDP 130184670	42
650	920	690	FCDP 130184690	42
660	820	440	FCD 132164440	41
660	880	450	FCD 132176450	41
660,40	812,80	95,25	L281147/L281110	43
660,40	939,80	136,525	306/660.4	43
660,40	1000	152,40	306/660.4-1	43
670	705	900	351761 A	59
670	800	78	591/670	51
670	800	105	511/670 M	51
670	820	69	618/670 MA	4
670	820	69	NU 18/670	32
670	820	112	238/670	45
670	820	112	238/670 K	46
670	820	150	248/670	45
670	900	103	619/670 MA	4
670	900	103	NU 19/670	32
670	900	140	292/670 M	58
670	900	170	239/670	45
670	900	170	239/670 K	46
670	900	230	NNU 49/670 K/SPW33X	37
670	900	230	NNU 49/670 SPW33X	37
670	980	136	60/670 N1MAS	4
670	980	136	70/670 A	17
670	980	136	NU 10/670	32
670	980	180	NU 20/670	32
670	980	230	NU 30/670	32
670	980	230	N 30/670 K	35
670	980	230	230/670	45
670	980	230	230/670 K	46
670	980	308	NNU 40/670 KM/W33	37
670	980	308	NNU 40/670 M/W33	37
670	980	308	240/670	45
670	980	308	240/670 K30	46
670	1090	336	231/670	45
670	1090	336	231/670K	46
670	1090	412	NNU 41/670 K30M/W33	37
670	1090	412	NNU 41/670 M/W33	37
670	1090	412	241/670	45
670	1090	412	241/670 K30	46
670	1150	290	294/670 M	58
670	1220	438	232/670	45
670	1220	438	232/670 K	46
679,45	901,70	142,875	LL281849/LL281810	43
680	1000	190	306/680	43
680	1020	680	FCDP 136204680	42
682,625	965,20	185,738	306/682 X4-2	43
682,625	1080	200	306/682 X4-3	43
685,80	876,30	93,662	EE655270/655345	43
690	980	715	FCDP 138196715	42
690	980	750	FCDP 138196750	42
695	55		HJ 10/600	36
700	930	620	FCDP 140186620	42

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
700	980	700	FCDP 140196700	42
700	1000	710	FCDP 140200710	42
710	870	74	618/710 MA	4
710	870	74	NU 18/710	32
710	870	95	N 28/710	35
710	870	118	238/710	45
710	950	78	609/710	4
710	950	106	619/710 MA	4
710	950	106	719/710 AC	17
710	950	114	319/710	43
710	950	180	239/710	45
710	950	180	239/710 K	46
710	950	243	249/710	45
710	950	243	249/710 K30	46
710	1020	710	FCDP 142204710	42
710	1030	140	60/710 MA	4
710	1030	140	NU 10/710	32
710	1030	185	NU 20/710	32
710	1030	236	230/710	45
710	1030	236	230/710 K	46
710	1030	315	NNU 40/710 KM/W33	37
710	1030	315	NNU 40/710 M/W33	37
710	1030	315	240/710	45
710	1030	315	240/710 K30	46
710	1060	212	293/710 M	58
710	1150	345	231/710	45
710	1150	345	231/710 K	46
710	1150	438	NNU 41/710 K30M/W33	37
710	1150	438	NNU 41/710 M/W33	37
710	1150	438	241/710	45
710	1150	438	241/710 K30	46
710	1220	308	294/710 M	58
710	1280	450	232/710	45
710	1280	450	232/710 K	46
711,20	939,80	120,65	306/711.2	43
723,90	914,40	84,137	EE755285/755360	43
725	1000	700	FCDP 145200700	42
730	850	85	350627 A	51
730	960	620	FCDP 146192620	42
730	1030	750	FCDP 146206750	42
749,30	990,60	159,50	L283649/L283610	43
750	900	90	591/750	51
750	900	120	511/750	51
750	920	78	618/750 MA	4
750	920	78	718/750 A	17
750	920	128	238/750	45
750	920	128	238/750 K	46
750	920	170	NN 48/750 K30/H1W33	37
750	920	170	NN 48/750/H1W33	37
750	1000	112	619/750 MA	4
750	1000	150	292/750 M	58
750	1000	185	239/750	45
750	1000	185	239/750 K	46
750	1000	250	249/750	45
750	1000	250	249/750 K30	46
750	1000	670	FCDP 150200670	42

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
750	1080	665	FCDP 150216650	42
750	1090	150	60/750	4
750	1090	150	NU 10/750	32
750	1090	195	NU 20/750	32
750	1090	250	230/750	45
750	1090	250	230/750 K	46
750	1090	335	NNU 40/750 KM/W33	37
750	1090	335	NNU 40/750 M/W33	37
750	1090	335	240/750	45
750	1090	335	240/750 K30	46
750	1090	750	FCDP 150218750	42
750	1120	224	293/750 M	58
750	1133	670	FCDP 150226670	42
750	1220	365	231/750	45
750	1220	365	231/750 K	46
750	1220	475	NNU 41/750 K30M/W33	37
750	1220	475	NNU 41/750 M/W33	37
750	1220	475	241/750	45
750	1220	475	241/750 K30	46
750	1280	315	294/750 M	58
750	1360	475	232/750	45
750	1360	475	232/750 K	46
759,925	889	69,85	LL483488/LL483418	43
760	889	88,90	L183448/L183410	43
760	890	78	306/760	43
760	1015	700	FCDP 152203700	42
760	1030	750	FCDP 152206750	42
760	1080	790	FCDP 152216790	42
760	1080	805	FCDP 152216790	42
762	889	88,90	L183449/L183410	43
774,70	965,20	93,662	EE752305/752380	43
780	1070	780	FCDP 156214780	42
800	950	90	591/800/351589 A	51
800	980	57	608/800	4
800	980	82	618/800 MA	4
800	980	180	248/800	45
800	980	180	248/800 K30	46
800	1060	115	619/800 MA	4
800	1060	150	NU 29/800	32
800	1060	155	292/800 M	58
800	1060	195	239/800	45
800	1060	195	239/800 K	46
800	1060	258	249/800	45
800	1060	258	249/800 K30	46
800	1080	700	FCDP 160216700	42
800	1080	750	FCDP 160216750	42
800	1150	155	60/800 N1MAS	4
800	1150	200	NU 20/800	32
800	1150	258	230/800	45
800	1150	258	230/800 K	46
800	1150	345	NNU 40/800 KM/W33	37
800	1150	345	NNU 40/800 M/W33	37
800	1150	345	240/800	45
800	1150	345	240/800 K30	46
800	1180	230	293/800 M	58
800	1280	375	231/800	45

Dimension (mm) Dimensioni (mm)			Designation <i>Sigla</i>	Fig.
d	D	B		
800	1280	375	231/800 K	46
800	1280	475	NNU 41/800 K30M/W33	37
800	1280	475	NNU 41/800 M/W33	37
800	1280	475	241/800	45
800	1280	475	241/800 K30	46
800	1360	335	294/800 M	58
801,688	914,40	58,738	LL584449/LL584410	43
820	1130	800	FCDP 164226800	42
820	1160	840	FCDP 164232840	42
838,20	1041,40	93,662	EE763330/763410	43
840	1160	840	FCDP 168232840	42
850	1000	90	591/850	51
850	1030	57	608/850	4
850	1030	82	618/850 MA	4
850	1030	90	318/850	43
850	1030	106	NU 28/850	32
850	1030	136	238/850	45
850	1030	136	238/850 K	46
850	1120	118	619/850	4
850	1120	118	NU 19/850	32
850	1120	118	NJ 19/850	33
850	1120	155	NU 29/850	32
850	1120	155	N 29/850	35
850	1120	160	292/850 M	58
850	1120	200	239/850	45
850	1120	200	239/850 K	46
850	1120	272	249/850	45
850	1120	272	249/850 K30	46
850	1150	840	FCDP 170230840	42
850	1180	650	FCDP 170236650	42
850	1180	850	FCDP 170236850	42
850	1180	875	FCDP 170236850	42
850	1220	165	60/850	4
850	1220	272	230/850	45
850	1220	272	230/850 K	46
850	1220	365	NNU 40/850 KM/W33	37
850	1220	365	NNU 40/850 M/W33	37
850	1220	365	240/850	45
850	1220	365	240/850 K30	46
850	1360	400	231/850	45
850	1360	400	231/850 K	46
850	1360	500	NNU 41/850 K30M/W33	37
850	1360	500	NNU 41/850 M/W33	37
850	1360	500	241/850	45
850	1360	500	241/850 K30	46
850	1440	354	294/850 M	58
860	1140	750	FCDP 172228750	42
860	1160	735	FCDP 172232710	42
880	1140	80	FCDP 176228800	42
900	960	1180	353002	59
900	1090	85	618/900 MA	4
900	1090	85	NU 18/900	32
900	1090	112	N 28/900	35
900	1090	190	248/900	45
900	1090	190	248/900 K30	46
900	1180	122	619/900	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
900	1180	122	NU 19/900 M	32
900	1180	122	T3GB900	43
900	1180	165	NU 29/900	32
900	1180	206	239/900	45
900	1180	206	239/900 K	46
900	1220	840	FCDP 180244840	42
900	1280	170	60/900	4
900	1280	190	306/900	43
900	1280	280	230/900	45
900	1280	280	230/900 K	46
900	1280	375	NNU 40/900 KM/W33	37
900	1280	375	NNU 40/900 M/W33	37
900	1280	375	240/900	45
900	1280	375	240/900 K30	46
900	1280	780	FCDP 180256780	42
900	1280	930	FCDP 180256930	42
900	1280	1050	FCDP 180256840	42
900	1420	515	NNU 41/900 K30M/W33	37
900	1420	515	NNU 41/900 M/W33	37
900	1420	515	241/900	45
900	1420	515	241/900 K30	46
900	1520	372	294/900 M	58
920	1280	815	FCDP 184256800	42
920	1280	865	FCDP 184256850	42
920	1300	975	FCDP 184268950	42
928	1060	92	JL286948H/JL286910	43
930	1060	92	JL286949H/JL286910	43
950	1120	103	591/950	51
950	1150	90	618/950 F1	4
950	1250	132	619/950	4
950	1250	175	NU 29/950	32
950	1250	180	292/950 M	58
950	1250	224	239/950	45
950	1250	224	239/950 K	46
950	1250	300	249/950	45
950	1250	300	249/950 K30	46
950	1300	850	FCDP 190260850	42
950	1360	180	60/950	4
950	1360	300	230/950	45
950	1360	300	230/950 K	46
950	1360	412	NNU 40/950 KM/W33	37
950	1360	412	NNU 40/950 M/W33	37
950	1360	412	240/950	45
950	1360	412	240/950 K30	46
950	1360	975	FCDP 190272975	42
950	1360	1000	FCDP 1902721000	42
950	1500	545	NNU 41/950 K30M/W33	37
950	1500	545	NNU 41/950 M/W33	37
950	1500	545	241/950	45
950	1500	545	241/950 K30	46
950	1600	390	294/950 M	58
977,90	1130,30	66,68	LL687949/LL687910	43
980	1120	120	BD1B 351883	51
980	1310	880	FCDP 196262880	42
1000	1180	109	591/1000/351395	51
1000	1220	71	608/1000	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
1000	1220	100	618/1000 MA	4
1000	1220	100	NU 18/1000	32
1000	1220	165	238/1000	45
1000	1220	165	238/1000 K	46
1000	1320	103	609/1000	4
1000	1320	140	619/1000	4
1000	1320	185	NU 29/1000	32
1000	1320	315	NN 49/1000 K/W33X	37
1000	1320	315	NN 49/1000/W33X	37
1000	1320	315	249/1000	45
1000	1320	315	249/1000 K30	46
1000	1360	800	FCDP 200272800	42
1000	1420	185	60/1000	4
1000	1420	210	306/1000	43
1000	1420	308	230/1000	45
1000	1420	308	230/1000 K	46
1000	1420	412	NNU 40/1000 KM/W33	37
1000	1420	412	NNU 40/1000 M/W33	37
1000	1420	412	240/1000	45
1000	1420	412	240/1000 K30	46
1000	1580	462	231/1000	45
1000	1580	462	231/1000 K	46
1000	1580	580	NNU 41/1000 K30M/W33	37
1000	1580	580	NNU 41/1000 M/W33	37
1000	1580	580	241/1000	45
1000	1580	580	241/1000 K30	46
1000	1670	402	294/1000 M	58
1016	1270	101,60	EE168400/168500	43
1030	1380	850	FCDP 206276850	42
1040	1440	1000	FCDP 2082881000	42
1060	1280	100	618/1060 MA	4
1060	1280	128	N 28/1060	35
1060	1280	165	238/1060	45
1060	1280	165	238/1060 K	46
1060	1280	218	248/1060	45
1060	1280	218	248/1060 K	46
1060	1400	150	619/1060	4
1060	1400	195	NU 29/1060 M	32
1060	1400	206	292/1060 M	58
1060	1400	250	NU 39/1060 M	32
1060	1400	250	239/1060	45
1060	1400	250	239/1060 K	46
1060	1400	335	249/1060	45
1060	1400	335	249/1060 K	46
1060	1500	195	60/1060	4
1060	1500	325	230/1060	45
1060	1500	325	230/1060 K	46
1060	1500	438	240/1060	45
1060	1500	438	240/1060 K	46
1060	1660	600	NNU 41/1060 K30M/W33	37
1060	1660	600	NNU 41/1060 M/W33	37
1060	1770	426	294/1060 M	58
1120	1360	106	618/1120 MA	4
1120	1360	140	N 28/1120	35
1120	1360	243	248/1120	45
1120	1360	243	248/1120 K	46

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
1120	1460	150	619/1120	4
1120	1460	335	249/1120	45
1120	1460	335	249/1120 K	46
1120	1580	200	60/1120	4
1120	1580	345	NU 30/1120	32
1120	1580	462	240/1120	45
1120	1580	462	240/1120 K	46
1120	1750	630	NNU 41/1120 K30M/W33	37
1120	1750	630	NNU 41/1120 M/W33	37
1180	1420	106	618/1180 MB	4
1180	1420	106	NJ 18/1180	33
1180	1420	180	238/1180	45
1180	1420	180	238/1180 K	46
1180	1420	243	248/1180	45
1180	1420	243	248/1180 K	46
1180	1520	206	292/1180 M	58
1180	1540	160	619/1180	4
1180	1540	206	NU 29/1180	32
1180	1540	272	N 39/1180	35
1180	1540	272	239/1180	45
1180	1540	272	239/1180 K	46
1180	1540	355	249/1180	45
1180	1540	355	249/1180 K	46
1180	1850	670	NNU 41/1180 K30M/W33	37
1180	1850	670	NNU 41/1180 M/W33	37
1200	1590	1050	FCDP 2403181050	42
1250	1500	112	618/1250	4
1250	1500	150	351006 A	51
1250	1750	290	N 20/1250	35
1250	1750	375	230/1250	45
1250	1750	375	230/1250 K	46
1250	1800	330	293/1250 M	58
1250	1950	710	NNU 41/1250 K30M/W33	37
1250	1950	710	NNU 41/1250 M/W33	37
1270	1465	73	306/1270	43
1270	1465	100	306/1270-1	43
1280	1560	150	66/1280 F1	4
1300	1655	890	FCDP 260331880	42
1320	1600	122	618/1320 F3	4
1320	1600	122	NU 18/1320	32
1320	1600	280	248/1320	45
1320	1600	280	248/1320 K	46
1320	1720	128	609/1320	4
1320	1720	230	NU 29/1320	32
1320	1720	300	N 39/1320	35
1320	1720	400	NN 49/1320 K/W33	37
1320	1720	400	NN 49/1320 W33	37
1320	1720	400	249/1320	45
1320	1720	400	249/1320 K	46
1320	1850	400	N 30/1320	35
1320	2060	750	NNU 41/1320 K30M/W33	37
1320	2060	750	NNU 41/1320 M/W33	37
1350	1765	1360	FCDP 2703531360	42
1380	1540	130	BD1B 351890 A	51
1400	1630	180	511/1400	51
1400	1700	132	618/1400	4

Dimension (mm) Dimensioni (mm)			Designation Sigla	Fig.
d	D	B		
1400	1780	1200	FCDP 2703561200	42
1400	1820	185	619/1400	4
1400	1900	1360	FCDP 2703801360	42
1400	2180	775	NNU 41/1400 K30M/W33	37
1400	2180	775	NNU 41/1400 M/W33	37
1420	1620	100	351346 B	51
1500	1820	140	618/1500 MB	4
1500	1820	140	NU 18/1500	32
1500	1820	315	248/1500	45
1500	1820	315	248/1500 K	46
1500	1950	195	619/1500	4
1500	2300	800	NNU 41/1500 K30M/W33	37
1500	2300	800	NNU 41/1500 M/W33	37
1600	1950	155	618/1600	4
1600	2060	200	619/1600	4
1600	2280	408	293/1600 M	58
1700	2060	160	618/1700	4
1700	2060	160	NU 18/1700	32
1700	2180	212	619/1700	4
1800	1950	120	510/1800	51
1800	2180	375	248/1800	45
1800	2180	375	248/1800 K	46
1900	2300	175	N 18/1900	35

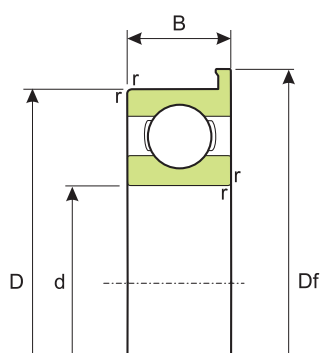


Fig.1

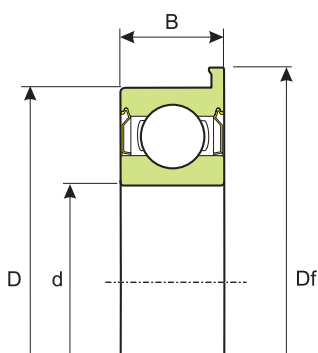


Fig.2

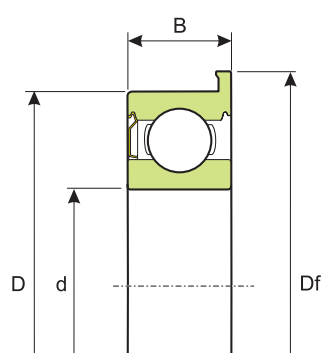


Fig.3

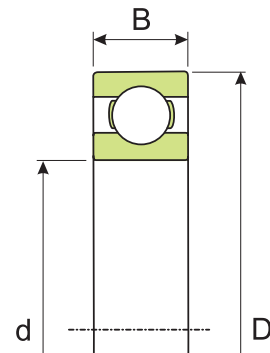


Fig.4

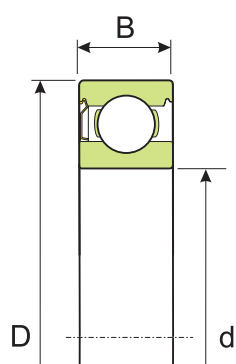


Fig.5

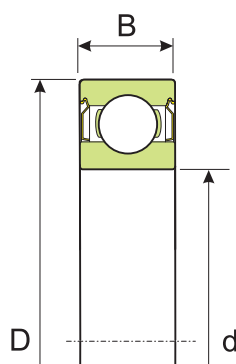


Fig.6

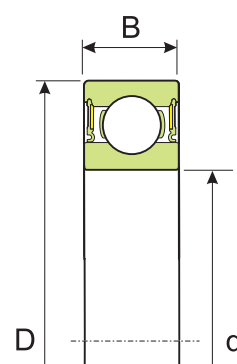


Fig.7

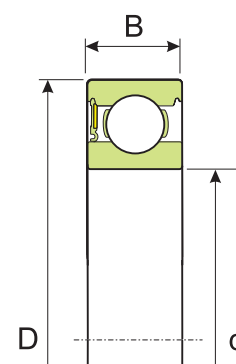


Fig.8

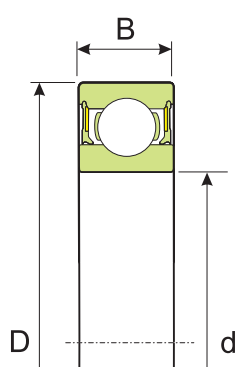


Fig.9

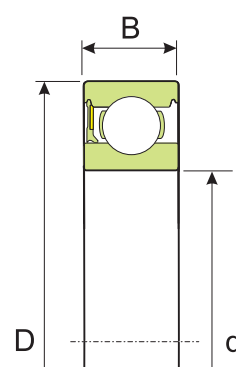


Fig.10

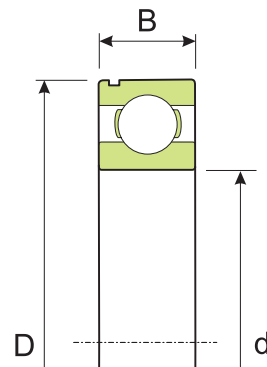


Fig.11

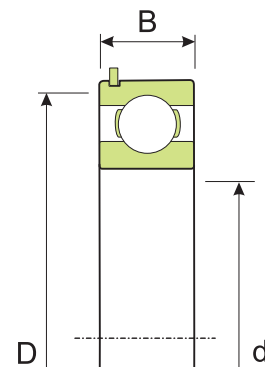


Fig.12

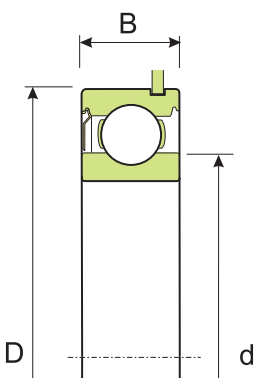


Fig.13

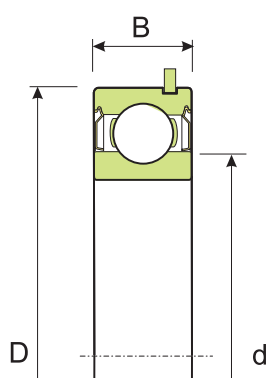


Fig.14

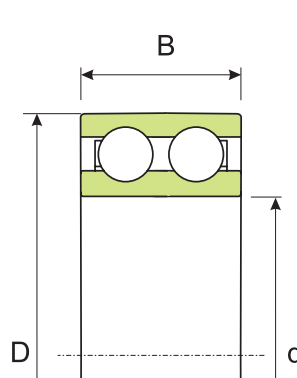


Fig.15

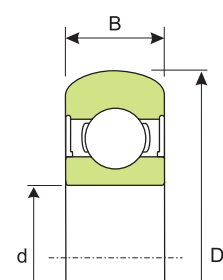


Fig.16

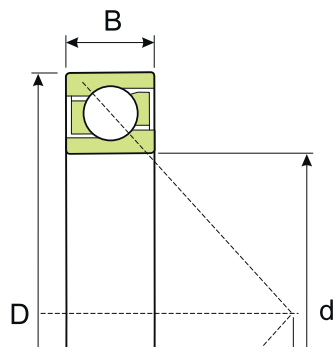


Fig.17

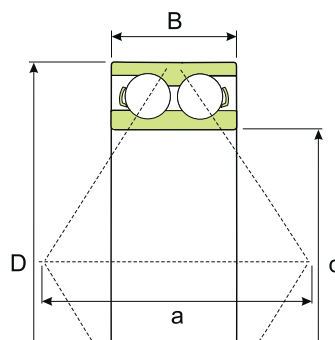


Fig.18

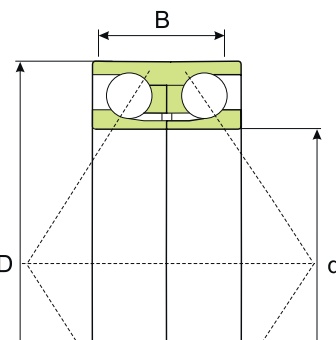


Fig.19

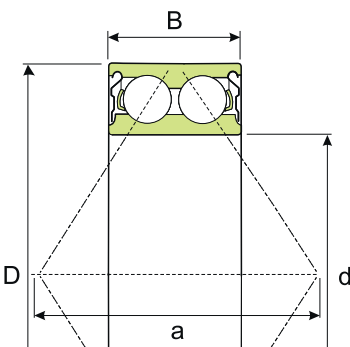


Fig.20

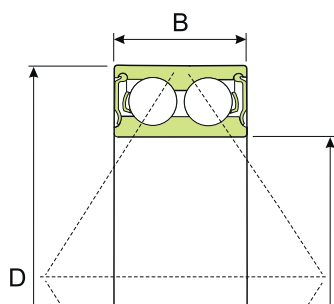


Fig.21

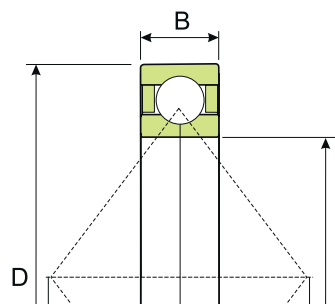


Fig.22

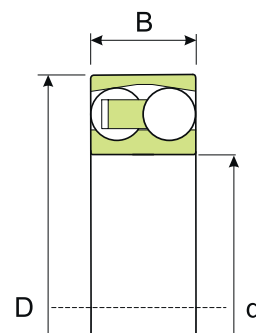


Fig.23

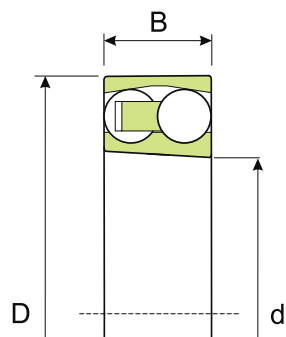


Fig.24

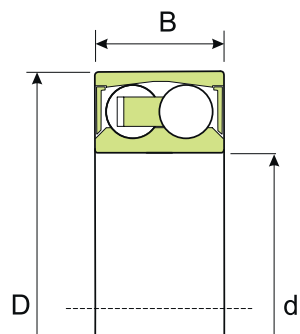


Fig.25

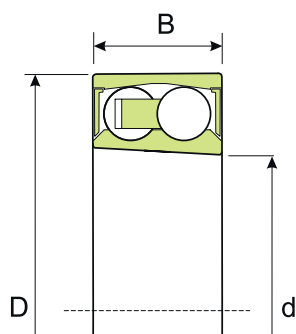


Fig.26

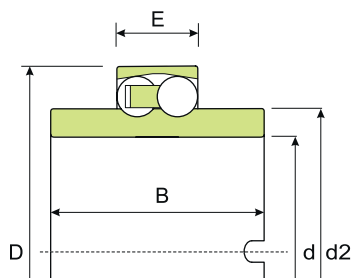


Fig.27

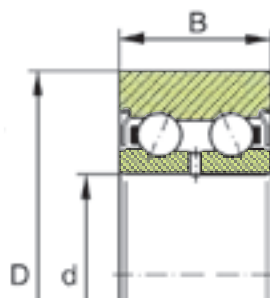


Fig.28

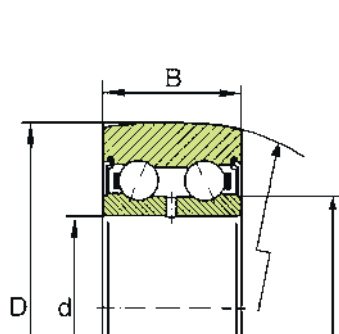


Fig.29

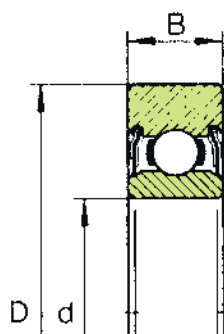


Fig.30

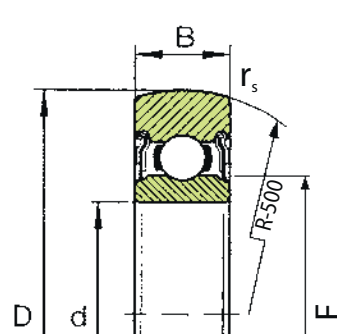


Fig.31

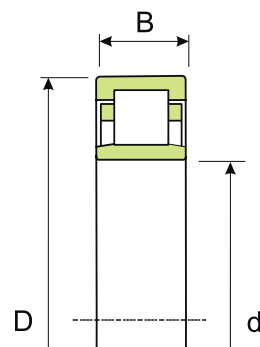


Fig.32

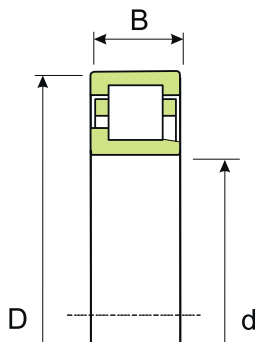


Fig.33

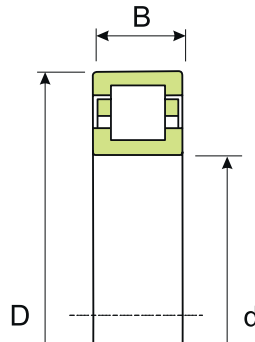


Fig.34

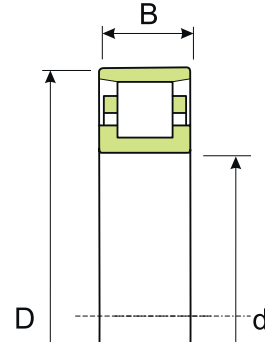


Fig.35

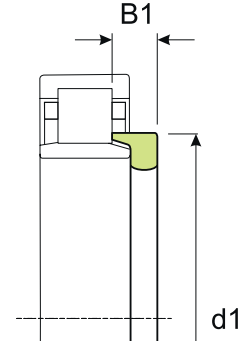


Fig.36

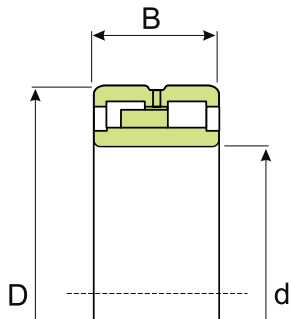


Fig.37

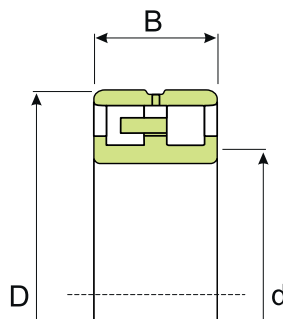


Fig.38

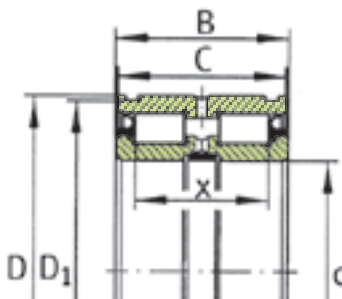


Fig.39

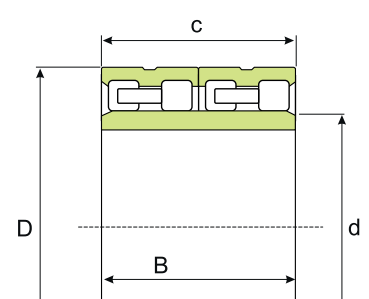


Fig.40

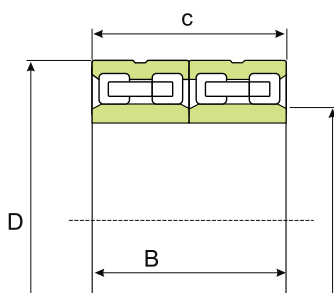


Fig.41

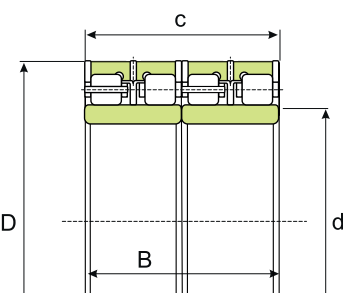


Fig.42

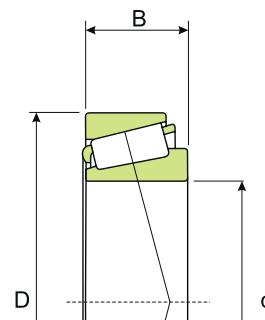


Fig.43

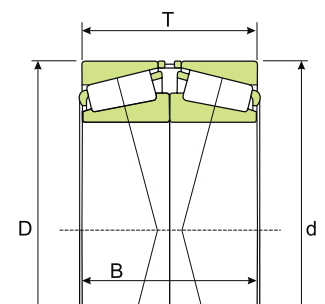


Fig.44

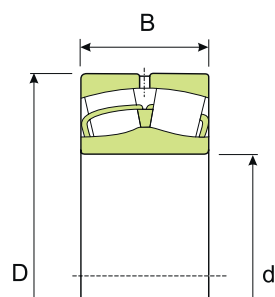


Fig.45

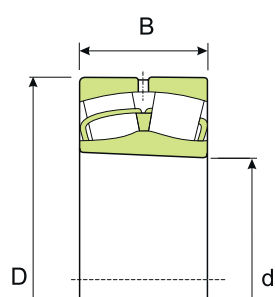


Fig.46

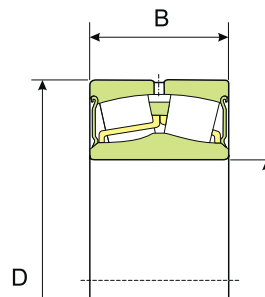


Fig.47

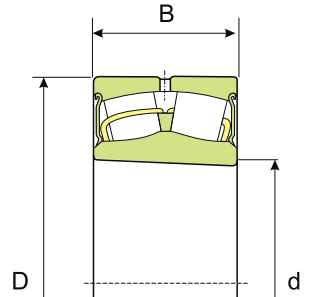


Fig.48

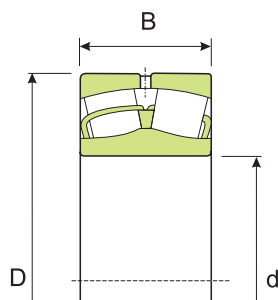


Fig.49

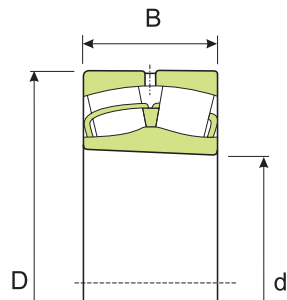


Fig.50

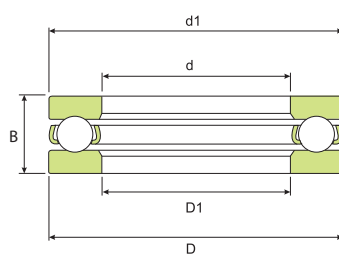


Fig.51

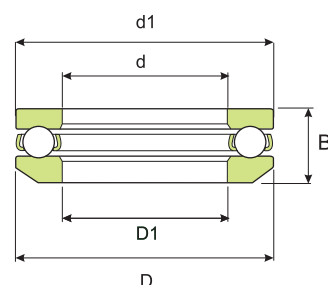


Fig.52

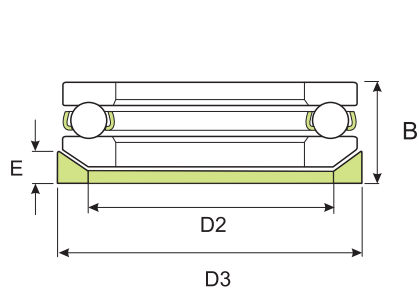


Fig.53

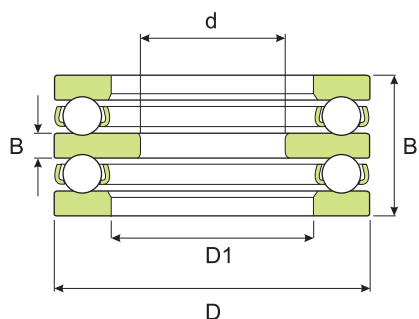


Fig.54

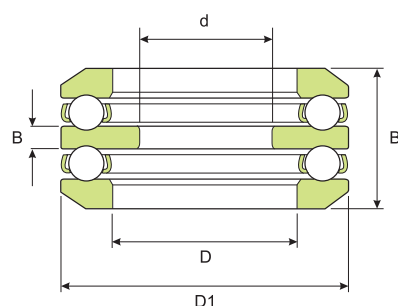


Fig.55

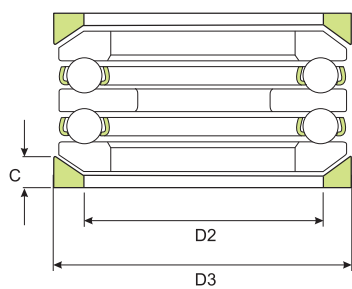


Fig.56

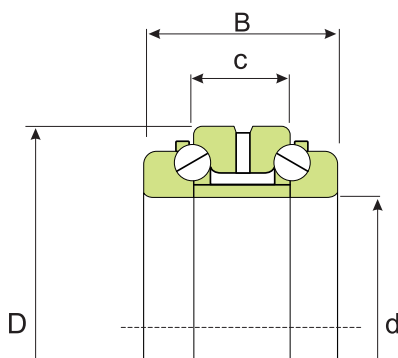


Fig.57

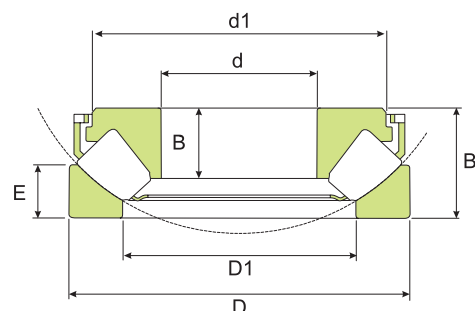


Fig.58

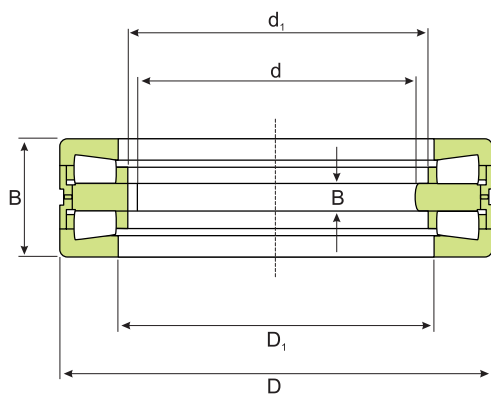


Fig.59

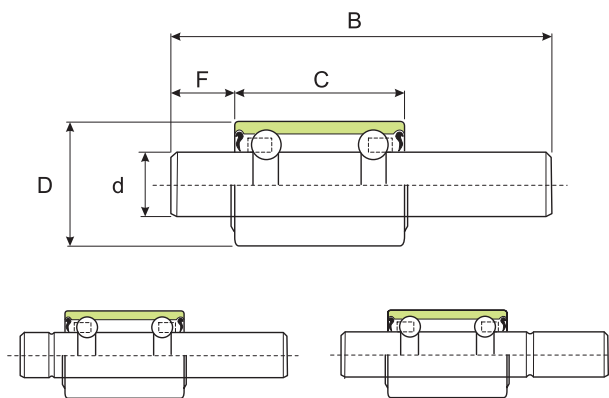


Fig.60



COMBINED NEEDLE ROLLER BEARINGS *CUSCINETTI COMBINATI A RULLINI*



811../812../ 893../894..	=	K	+	GS	+	WS
811 02 TN	=	K811 02 TN	+	GS811 02	+	WS811 02
811 03 TN	=	K811 03 TN	+	GS811 03	+	WS811 03
811 04 TN	=	K811 04 TN	+	GS811 04	+	WS811 04
811 05 TN	=	K811 05 TN	+	GS811 05	+	WS811 05
811 06 TN	=	K811 06 TN	+	GS811 06	+	WS811 06
811 07 TN	=	K811 07 TN	+	GS811 07	+	WS811 07
811 08 TN	=	K811 08 TN	+	GS811 08	+	WS811 08
811 09 TN	=	K811 09 TN	+	GS811 09	+	WS811 09
811 10 TN	=	K811 10 TN	+	GS811 10	+	WS811 10
811 11 TN	=	K811 11 TN	+	GS811 11	+	WS811 11
811 12 TN	=	K811 12 TN	+	GS811 12	+	WS811 12
811 13 TN	=	K811 13 TN	+	GS811 13	+	WS811 13
811 14 TN	=	K811 14 TN	+	GS811 14	+	WS811 14
811 15 TN	=	K811 15 TN	+	GS811 15	+	WS811 15
811 16 TN	=	K811 16 TN	+	GS811 16	+	WS811 16
811 17 TN	=	K811 17 TN	+	GS811 17	+	WS811 17
811 18 TN	=	K811 18 TN	+	GS811 18	+	WS811 18
811 20 TN	=	K811 20 TN	+	GS811 20	+	WS811 20
811 22 TN	=	K811 22 TN	+	GS811 22	+	WS811 22
811 24 TN	=	K811 24 TN	+	GS811 24	+	WS811 24
811 26 TN	=	K811 26 TN	+	GS811 26	+	WS811 26
811 28 TN	=	K811 28 TN	+	GS811 28	+	WS811 28
811 30 TN	=	K811 30 TN	+	GS811 30	+	WS811 30
811 32 TN	=	K811 32 TN	+	GS811 32	+	WS811 32
811 34 TN	=	K811 34 TN	+	GS811 34	+	WS811 34
811 36 M	=	K811 36 M	+	GS811 36	+	WS811 36
811 38 M	=	K811 38 M	+	GS811 38	+	WS811 38
811 40 M	=	K811 40 M	+	GS811 40	+	WS811 40
811 44 M	=	K811 44 M	+	GS811 44	+	WS811 44
811 48 M	=	K811 48 M	+	GS811 48	+	WS811 48
811 52 M	=	K811 52 M	+	GS811 52	+	WS811 52
811 56 M	=	K811 56 M	+	GS811 56	+	WS811 56
811 60 M	=	K811 60 M	+	GS811 60	+	WS811 60
811 64 M	=	K811 64 M	+	GS811 64	+	WS811 64
811 68 M	=	K811 68 M	+	GS811 68	+	WS811 68
811 72 M	=	K811 72 M	+	GS811 72	+	WS811 72
812 06 TN	=	K812 06 TN	+	GS812 06	+	WS812 06
812 07 TN	=	K812 07 TN	+	GS812 07	+	WS812 07
812 08 TN	=	K812 08 TN	+	GS812 08	+	WS812 08
812 09 TN	=	K812 09 TN	+	GS812 09	+	WS812 09
812 10 TN	=	K812 10 TN	+	GS812 10	+	WS812 10
812 11 TN	=	K812 11 TN	+	GS812 11	+	WS812 11
812 12 TN	=	K812 12 TN	+	GS812 12	+	WS812 12
812 13 TN	=	K812 13 TN	+	GS812 13	+	WS812 13
812 14 TN	=	K812 14 TN	+	GS812 14	+	WS812 14

811../812.	=	K	+	GS	+	WS
812 15 TN	=	K812 15 TN	+	GS812 15	+	WS812 15
812 16 TN	=	K812 16 TN	+	GS812 16	+	WS812 16
812 17 TN	=	K812 17 TN	+	GS812 17	+	WS812 17
812 18 TN	=	K812 18 TN	+	GS812 18	+	WS812 18
812 20 TN	=	K812 20 TN	+	GS812 20	+	WS812 20
812 22 TN	=	K812 22 TN	+	GS812 22	+	WS812 22
812 24 TN	=	K812 24 TN	+	GS812 24	+	WS812 24
812 26 TN	=	K812 26 TN	+	GS812 26	+	WS812 26
812 28 M	=	K812 28 M	+	GS812 28	+	WS812 28
812 30 M	=	K812 30 TN	+	GS812 30	+	WS812 30
812 32 M	=	K812 32 M	+	GS812 32	+	WS812 32
812 34 M	=	K812 34 M	+	GS812 34	+	WS812 34
812 36 M	=	K812 36 M	+	GS812 36	+	WS812 36
812 38 M	=	K812 38 M	+	GS812 38	+	WS812 38
812 40 M	=	K812 40 M	+	GS812 40	+	WS812 40
812 44 M	=	K812 44 M	+	GS812 44	+	WS812 44
812 48 M	=	K812 48 M	+	GS812 48	+	WS812 48
812 52 M	=	K812 52 M	+	GS812 52	+	WS812 52
812 56 M	=	K812 56 M	+	GS812 56	+	WS812 56
812 60 M	=	K812 60 M	+	GS812 60	+	WS812 60
812 68 M	=	K812 68 M	+	GS812 68	+	WS812 68
812 72 M	=	K812 72 M	+	GS812 72	+	WS812 72
893 06 TN	=	K893 06 TN	+	GS893 06	+	WS893 06
893 07 TN	=	K893 07 TN	+	GS893 07	+	WS893 07
893 08 TN	=	K893 08 TN	+	GS893 08	+	WS893 08
893 09 TN	=	K893 09 TN	+	GS893 09	+	WS893 09
893 10 TN	=	K893 10 TN	+	GS893 10	+	WS893 10
893 11 TN	=	K893 11 TN	+	GS893 11	+	WS893 11
893 12 TN	=	K893 12 TN	+	GS893 12	+	WS893 12
893 13 TN	=	K893 13 TN	+	GS893 13	+	WS893 13
893 14 TN	=	K893 14 TN	+	GS893 14	+	WS893 14
893 15 TN	=	K893 15 TN	+	GS893 15	+	WS893 15
893 16 TN	=	K893 16 TN	+	GS893 16	+	WS893 16
893 17 M	=	K893 17 M	+	GS893 17	+	WS893 17
893 18 M	=	K893 18 M	+	GS893 18	+	WS893 18
893 20 M	=	K893 20 M	+	GS893 20	+	WS893 20
893 22 M	=	K893 22 M	+	GS893 22	+	WS893 22
893 24 M	=	K893 24 M	+	GS893 24	+	WS893 24
893 26 M	=	K893 26 M	+	GS893 26	+	WS893 26
893 28 M	=	K893 28 M	+	GS893 28	+	WS893 28
893 30 M	=	K893 30 M	+	GS893 30	+	WS893 30
894 12 TN	=	K894 12 TN	+	GS894 12	+	WS894 12
894 13 TN	=	K894 13 TN	+	GS894 13	+	WS894 13
894 14 TN	=	K894 14 TN	+	GS894 14	+	WS894 14
894 15 M	=	K894 15 M	+	GS894 15	+	WS894 15

811../812../ 893../894..	=	K	+	GS	+	WS
894 16 M	=	K894 16 M	+	GS894 16	+	WS894 16
894 17 M	=	K894 17 M	+	GS894 17	+	WS894 17
894 18 M	=	K894 18 M	+	GS89418	+	WS894 18
894 20 M	=	K894 20 M	+	GS894 20	+	WS894 20
894 22 M	=	K894 22 M	+	GS894 22	+	WS894 22
894 24 M	=	K894 24 M	+	GS894 24	+	WS894 24
894 26 M	=	K894 26 M	+	GS894 26	+	WS894 26
894 28 M	=	K894 28 M	+	GS894 28	+	WS894 28
894 30 M	=	K894 30 M	+	GS894 30	+	WS894 30
894 32 M	=	K894 32 M	+	GS894 32	+	WS894 32
894 34 M	=	K894 34 M	+	GS894 34	+	WS894 34
894 36 M	=	K894 36 M	+	GS894 36	+	WS894 36
894 38 M	=	K894 38 M	+	GS894 38	+	WS894 38
894 40 M	=	K894 40 M	+	GS894 40	+	WS894 40
894 44 M	=	K894 44 M	+	GS894 44	+	WS894 44
894 48 M	=	K894 48 M	+	GS894 48	+	WS894 48
894 52 M	=	K894 52 M	+	GS894 52	+	WS894 52
894 56 M	=	K894 56 M	+	GS894 56	+	WS894 56
894 60 M	=	K894 60 M	+	GS894 60	+	WS894 60
894 64 M	=	K894 64 M	+	GS894 64	+	WS894 64

STO...(x)	=	RSTO...(x)	+	IR...
STO 6 (x) TN	=	RSTO 6 (x) TN	+	IR 6x10x10
STO 8 (x) TN	=	RSTO 8 (x) TN	+	IR 8x12x10
STO 10 (x)	=	RSTO 10 (x)	+	IR 10x14x12
STO 12 (x)	=	RSTO 12 (x)	+	IR 12x16x12
STO 15 (x)	=	RSTO 15 (x)	+	IR 15x20x12
STO 17 (x)	=	RSTO 17 (x)	+	IR 17x22x16
STO 20 (x)	=	RSTO 20 (x)	+	IR 20x25x16
STO 25 (x)	=	RSTO 25 (x)	+	IR 25x30x16
STO 30 (x)	=	RSTO 30 (x)	+	IR 30x38x20
STO 35 (x)	=	RSTO 35 (x)	+	IR 35x42x20
STO 40 (x)	=	RSTO 40 (x)	+	IR 40x50x20
STO 45 (x)	=	RSTO 45 (x)	+	IR 45x55x20
STO 50 (x)	=	RSTO 50 (x)	+	IR 50x60x20

NAO...	=	RNAO...	+	IR...
NAO 6x17x10 TN	=	RNAO 10x17x10TN	+	IR 6x10x10
NAO 9x22x12	=	RNAO 12x22x12	+	IR 9x12x12
NAO 12x24x13	=	RNAO 16x24x13	+	IR 12x16x13
NAO 12x24x20	=	RNAO 16x24x20	+	IR 12x16x20
NAO 12x28x12	=	RNAO 16x28x12	+	IR 12x16x12
NAO 15x28x13	=	RNAO 20x28x13	+	IR 15x20x13
NAO 15x32x12	=	RNAO 20x32x12	+	IR 15x20x12
NAO 17x30x13	=	RNAO 22x30x13	+	IR 17x22x13
NAO 17x35x16	=	RNAO 22x35x16	+	IR 17x22x16
NAO 20x35x17	=	RNAO 25x35x17	+	IR 20x25x17
NAO 20x37x16	=	RNAO 25x37x16	+	IR 20x25x16
NAO 25x40x17	=	RNAO 30x40x17	+	IR 25x30x17
NAO 25x42x16	=	RNAO 30x42x16	+	IR 25x30x16
NAO 25x42x32	=	RNAO 30x42x32	+	IR 25x30x32
NAO 30x45x13	=	RNAO 35x45x13	+	IR 30x35x13
NAO 30x45x17	=	RNAO 35x45x17	+	IR 30x35x17
NAO 30x45x26	=	RNAO 35x45x26	+	IR 30x35x26
NAO 30x47x16	=	RNAO 35x47x16	+	IR 30x35x16
NAO 30x47x18	=	RNAO 35x47x18	+	IR 30x35x18
NAO 30x52x18	=	RNAO 37x52x18	+	IR 30x37x18
NAO 35x50x17	=	RNAO 40x50x17	+	IR 35x40x17
NAO 35x55x20	=	RNAO 40x55x20	+	IR 35x40x20
NAO 35x57x20,5	=	RNAO 42x57x20	+	IR 35x42x20,5
NAO 40x55x17	=	RNAO 45x55x17	+	IR 40x45x17
NAO 40x65x20	=	RNAO 50x65x20	+	IR 40x50x20
NAO 50x68x20	=	RNAO 55x68x20	+	IR 50x55x20
NAO 50x78x20	=	RNAO 60x78x20	+	IR 50x60x20
NAO 70x100x30	=	RNAO 80x100x30	+	IR 70x80x30
NAO 75x105x25	=	RNAO 85x105x25	+	IR 75x85x25
NAO 80x110x30	=	RNAO 90x110x30	+	IR 80x90x30
NAO 90x120x30	=	RNAO 100x120x30	+	IR 90x100x30

PNA...	=	RPNA...	+	IR...
PNA 1228	=	RPNA 1528	+	IR 12x15x12
PNA 1532	=	RPNA 1832	+	IR 15x18x16
PNA 1735	=	RPNA 2035	+	IR 17x20x16
PNA 2042	=	RPNA 2542	+	IR 20x25x20
PNA 2244	=	RPNA 2844	+	IR 22x28x20
PNA 2547	=	RPNA 3047	+	IR 25x30x20
PNA 3052	=	RPNA 3552	+	IR 30x35x20
PNA 3555	=	RPNA 4055	+	IR 35x40x20
PNA 4062	=	RPNA 4562	+	IR 40x45x20

NKI...	=	NK...	+	IR...
NKI 5/12 TN	=	NK 8/12 TN	+	IR 5x8x12
NKI 5/16 TN	=	NK 8/16 TN	+	IR 5x8x16
NKI 6/12 TN	=	NK 9/12 TN	+	IR 6x9x12
NKI 6/16 TN	=	NK 9/16 TN	+	IR 6x9x16
NKI 7/12 TN	=	NK 10/12 TN	+	IR 7x10x12
NKI 7/16 TN	=	NK 10/16 TN	+	IR 7x10x16
NKI 9/12	=	NK 12/12	+	IR 9x12x12
NKI 9/16	=	NK 12/16	+	IR 9x12x16
NKI 10/16	=	NK 14/16	+	IR 10x14x16
NKI 10/20	=	NK 14/20	+	IR 10x14x20
NKI 12/16	=	NK 16/16	+	IR 12x16x16
NKI 12/20	=	NK 16/20	+	IR 12x16x20
NKI 15/16	=	NK 19/16	+	IR 15x19x16
NKI 15/20	=	NK 19/20	+	IR 15x19x20
NKI 17/16	=	NK 21/16	+	IR 17x21x16
NKI 17/20	=	NK 21/20	+	IR 17x21x20
NKI 20/16	=	NK 24/16	+	IR 20x24x16
NKI 20/20	=	NK 24/20	+	IR 20x24x20
NKI 22/16	=	NK 26/16	+	IR 22x26x16
NKI 22/20	=	NK 26/20	+	IR 22x26x20
NKI 25/20	=	NK 29/20	+	IR 25x29x20
NKI 25/30	=	NK 29/30	+	IR 25x29x30
NKI 28/20	=	NK 32/20	+	IR 28x32x20
NKI 28/30	=	NK 32/30	+	IR 28x32x30
NKI 30/20	=	NK 35/20	+	IR 30x35x20
NKI 30/30	=	NK 35/30	+	IR 30x35x30
NKI 32/20	=	NK 35/20	+	IR 30x35x20
NKI 32/30	=	NK 37/30	+	IR 32x37x30
NKI 35/20	=	NK 40/20	+	IR 35x40x20
NKI 35/30	=	NK 40/30	+	IR 35x40x30
NKI 38/20	=	NK 43/20	+	IR 38x43x20
NKI 38/30	=	NK 43/30	+	IR 38x43x30
NKI 40/20	=	NK 45/20	+	IR 40x45x20
NKI 40/30	=	NK 45/30	+	IR 40x45x30
NKI 42/20	=	NK 47/20	+	IR 42x47x20
NKI 42/30	=	NK 47/30	+	IR 42x47x30
NKI 45/25	=	NK 50/25	+	IR 45x50x25
NKI 45/35	=	NK 50/35	+	IR 45x50x35
NKI 50/25	=	NK 55/25	+	IR 50x55x25
NKI 50/35	=	NK 55/35	+	IR 50x55x35
NKI 55/25	=	NK 60/25	+	IR 55x60x25
NKI 55/35	=	NK 60/35	+	IR 55x60x35
NKI 60/25	=	NK 68/25	+	IR 60x68x25
NKI 60/35	=	NK 68/35	+	IR 60x68x35
NKI 65/25	=	NK 73/25	+	IR 65x73x25
NKI 65/35	=	NK 73/35	+	IR 65x73x35
NKI 70/25	=	NK 80/25	+	IR 70x80x25
NKI 70/35	=	NK 80/35	+	IR 70x80x35
NKI 75/25	=	NK 85/25	+	IR 75x85x25
NKI 75/35	=	NK 85/35	+	IR 75x85x35

NKI...	=	NK...	+	IR...
NKI 80/25	=	NK 90/25	+	IR 80x90x25
NKI 80/35	=	NK 90/35	+	IR 80x90x35
NKI 85/26	=	NK 95/26	+	IR 85x95x26
NKI 85/36	=	NK 95/36	+	IR 85x95x36
NKI 90/26	=	NK 100/26	+	IR 90x100x26
NKI 90/36	=	NK 100/36	+	IR 90x100x36
NKI 95/26	=	NK 105/26	+	IR 95x105x26
NKI 95/36	=	NK 105/36	+	IR 95x105x36
NKI 100/30	=	NK 110/30	+	IR 100x110x30
NKI 100/40	=	NK 110/40	+	IR 100x110x40
NKI 110/40	=	NK 120/40	+	IR 110x120x40
NKI 140/32	=	NK 155/32	+	IR 140x155x32

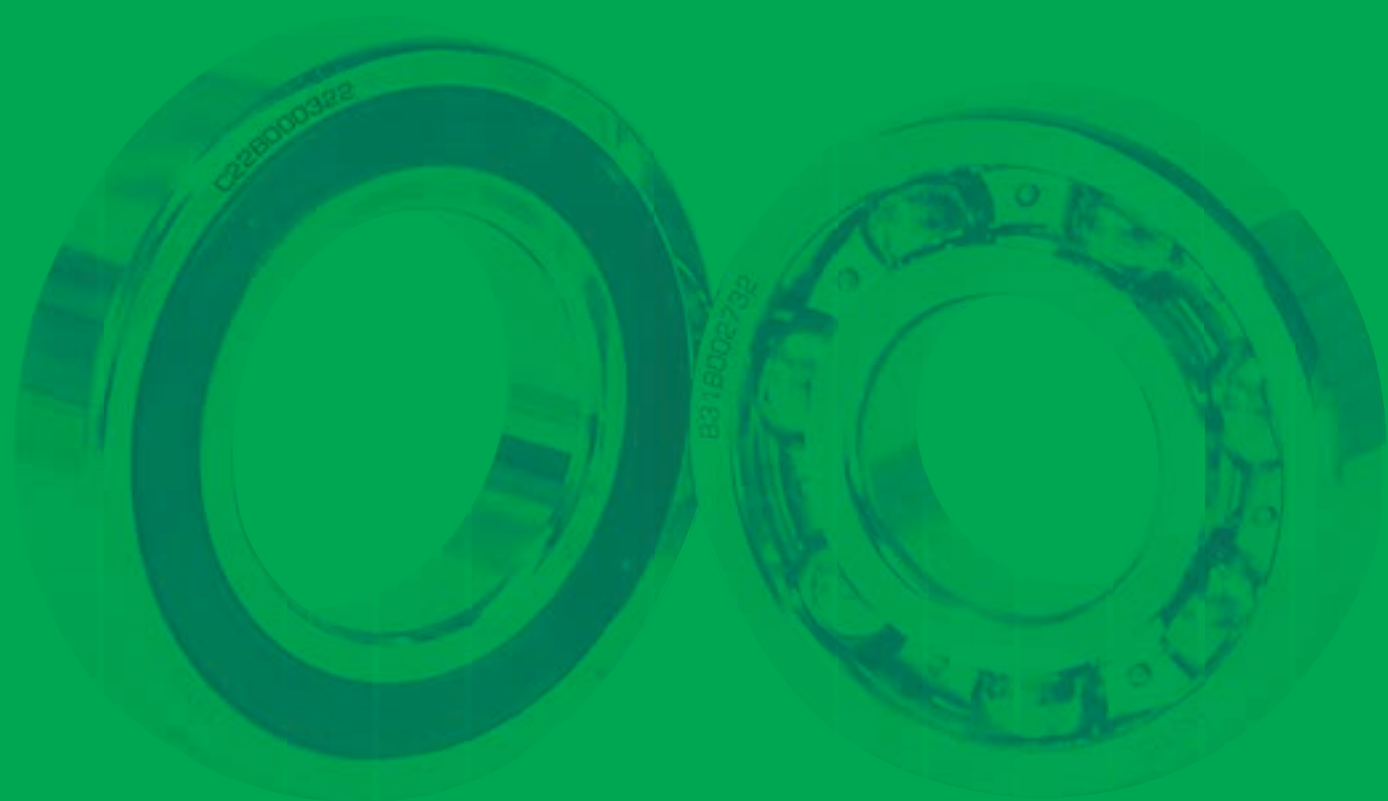
NKIS...	=	NKS...	+	IR...
NKIS 6 TN	=	NKS 10 TN	+	IR 6x10x13
NKIS 7 TN	=	NKS 12 TN	+	IR 7x12x16
NKIS 8	=	NKS 14	+	IR 8x14x16
NKIS 9	=	NKS 15	+	IR 9x15x16
NKIS 10	=	NKS 16	+	IR 10x16x16
NKIS 12	=	NKS 18	+	IR 12x18x16
NKIS 15	=	NKS 22	+	IR 15x22x20
NKIS 17	=	NKS 24	+	IR 17x24x20
NKIS 20	=	NKS 28	+	IR 20x28x20
NKIS 25	=	NKS 32	+	IR 25x32x22
NKIS 30	=	NKS 37	+	IR 30x37x22
NKIS 35	=	NKS 43	+	IR 35x43x22
NKIS 40	=	NKS 50	+	IR 40x50x22
NKIS 45	=	NKS 55	+	IR 45x55x22
NKIS 50	=	NKS 60	+	IR 50x60x28
NKIS 55	=	NKS 65	+	IR 55x65x28
NKIS 60	=	NKS 70	+	IR 60x70x28
NKIS 65	=	NKS 75	+	IR 65x75x28
NKIS 70	=	NKS 80	+	IR 70x80x28
NKIS 75	=	NKS 90	+	IR 75x90x32
NKIS 80	=	NKS 95	+	IR 80x95x32
NKIS 85	=	NKS 100	+	IR 85x100x32
NKIS 90	=	NKS 105	+	IR 90x105x32
NKIS 95	=	NKS 110	+	IR 95x110x32

NA...	=	RNA...	+	IR...
NA 4900	=	RNA 4900	+	IR 10x14x13
NA 4901	=	RNA 4901	+	IR 12x16x13
NA 4902	=	RNA 4902	+	IR 15x20x13
NA 4903	=	RNA 4903	+	IR 17x22x13
NA 4904	=	RNA 4904	+	IR 20x25x17
NA 49/22	=	RNA 49/22	+	IR 22x28x17
NA 4905	=	RNA 4905	+	IR 25x30x17
NA 49/28	=	RNA 49/28	+	IR 28x32x17
NA 4906	=	RNA 4906	+	IR 30x35x17
NA 49/32	=	RNA 49/32	+	IR 32x40x20
NA 4907	=	RNA 4907	+	IR 35x42x20
NA 4908	=	RNA 4908	+	IR 40x48x22
NA 4909	=	RNA 4909	+	IR 45x52x22
NA 4910	=	RNA 4910	+	IR 50x58x22
NA 4911	=	RNA 4911	+	IR 55x63x25
NA 4912	=	RNA 4912	+	IR 60x68x25
NA 4913	=	RNA 4913	+	IR 65x72x25
NA 4914	=	RNA 4914	+	IR 70x80x30
NA 4915	=	RNA 4915	+	IR 75x85x30
NA 4916	=	RNA 4916	+	IR 80x90x30
NA 4917	=	RNA 4917	+	IR 85x100x35
NA 4918	=	RNA 4918	+	IR 90x105x35
NA 4919	=	RNA 4919	+	IR 95x110x35
NA 4920	=	RNA 4920	+	IR 100x115x40
NA 4922	=	RNA 4922	+	IR 110x125x40
NA 4924	=	RNA 4924	+	IR 120x135x45
NA 4926	=	RNA 4926	+	IR 130x150x50
NA 4928	=	RNA 4928	+	IR 140x160x50
NA 6901	=	RNA 6901	+	IR 12x16x22
NA 6902	=	RNA 6902	+	IR 15x20x23
NA 6903	=	RNA 6903	+	IR 17x22x23
NA 6904	=	RNA 6904	+	IR 20x25x30
NA 69/22	=	RNA 69/22	+	IR 22x28x30
NA 6905	=	RNA 6905	+	IR 25x30x30
NA 69/28	=	RNA 69/28	+	IR 28x32x30
NA 6906	=	RNA 6906	+	IR 30x35x30
NA 69/32	=	RNA 69/32	+	IR 32x40x36
NA 6907	=	RNA 6907	+	IR 35x42x36
NA 6908	=	RNA 6908	+	IR 40x48x40
NA 6909	=	RNA 6909	+	IR 45x52x40
NA 6910	=	RNA 6910	+	IR 50x58x40
NA 6911	=	RNA 6911	+	IR 55x63x45
NA 6912	=	RNA 6912	+	IR 60x68x45
NA 6913	=	RNA 6913	+	IR 65x72x45
NA 6914	=	RNA 6914	+	IR 70x80x54
NA 6915	=	RNA 6915	+	IR 75x85x54
NA 6916	=	RNA 6916	+	IR 80x90x54
NA 6917	=	RNA 6917	+	IR 85x100x63
NA 6918	=	RNA 6918	+	IR 90x105x63
NA 6919	=	RNA 6919	+	IR 95x110x63

NA 48..	=	RNA 48..	+	IR..
NA 4822	=	RNA 4822	+	IR 110x120x30
NA 4824	=	RNA 4824	+	IR 120x130x30
NA 4826	=	RNA 4826	+	IR 130x145x35
NA 4828	=	RNA 4828	+	IR 140x155x35
NA 4830	=	RNA 4830	+	IR 150x165x40
NA 4832	=	RNA 4832	+	IR 160x175x40
NA 4834	=	RNA 4834	+	IR 170x185x45
NA 4836	=	RNA 4836	+	IR 180x195x45
NA 4838	=	RNA 4838	+	IR 190x210x50
NA 4840	=	RNA 4840	+	IR 200x220x50
NA 4844	=	RNA 4844	+	IR 220x240x50
NA 4848	=	RNA 4848	+	IR 240x265x60
NA 4852	=	RNA 4852	+	IR 260x285x60
NA 4856	=	RNA 4856	+	IR 280x305x69
NA 4860	=	RNA 4860	+	IR 300x330x80
NA 4864	=	RNA 4864	+	IR 320x350x80
NA 4868	=	RNA 4868	+	IR 340x370x80
NA 4872	=	RNA 4872	+	IR 360x390x80
NA 4876	=	RNA 4876	+	IR 380x415x100

NA...2RS (RS)	=	RNA...2RS (RS)	+	IR...
NA 4900 2RS (RS)	=	RNA 4900 2RS (RS)	+	IR 10x14x14
NA 4901 2RS (RS)	=	RNA 4901 2RS (RS)	+	IR 12x16x14
NA 4902 2RS (RS)	=	RNA 4902 2RS (RS)	+	IR 15x20x14
NA 4903 2RS (RS)	=	RNA 4903 2RS (RS)	+	IR 17x22x14
NA 4904 2RS (RS)	=	RNA 4904 2RS (RS)	+	IR 20x25x18
NA 4905 2RS (RS)	=	RNA 4905 2RS (RS)	+	IR 25x30x18
NA 4906 2RS (RS)	=	RNA 4906 2RS (RS)	+	IR 30x35x18
NA 4907 2RS (RS)	=	RNA 4907 2RS (RS)	+	IR 35x42x21
NA 4908 2RS (RS)	=	RNA 4908 2RS (RS)	+	IR 40x48x23
NA 4909 2RS (RS)	=	RNA 4909 2RS (RS)	+	IR 45x52x23
NA 4910 2RS (RS)	=	RNA 4910 2RS (RS)	+	IR 50x58x23

NA...2RS (x)	=	RNA...2RS (x)	+	IR...
NA 22/6 2RS (x)	=	RNA 22/6 2RS (x)	+	IR 6x10x12
NA 22/8 2RS (x)	=	RNA 22/8 2RS (x)	+	IR 8x12x12
NA 2200 2RS (x)	=	RNA 2200 2RS (x)	+	IR 10x14x14
NA 2201 2RS (x)	=	RNA 2201 2RS (x)	+	IR 12x16x14
NA 2202 2RS (x)	=	RNA 2202 2RS (x)	+	IR 15x20x14
NA 2203 2RS (x)	=	RNA 2203 2RS (x)	+	IR 17x22x16
NA 2204 2RS (x)	=	RNA 2204 2RS (x)	+	IR 20x25x18
NA 2205 2RS (x)	=	RNA 2205 2RS (x)	+	IR 25x30x18
NA 2206 2RS (x)	=	RNA 2206 2RS (x)	+	IR 30x35x20
NA 2207 2RS (x)	=	RNA 2207 2RS (x)	+	IR 35x42x23
NA 2208 2RS (x)	=	RNA 2208 2RS (x)	+	IR 40x48x23
NA 2209 2RS (x)	=	RNA 2209 2RS (x)	+	IR 45x52x23
NA 2210 2RS (x)	=	RNA 2210 2RS (x)	+	IR 50x58x23





**CYLINDRICAL ROLLER BEARINGS INTERCHANGE
*INTERCAMBIABILITA' CUSCINETTI A RULLI CILINDRICI***





SL0148, SL0149



SL0248, SL0249

DESIGNATION SKF	DESIGNATION ISB
SIGLA SKF	SIGLA ISB
NNC 4830 CV	SL014830
NNC 4832 CV	SL014832
NNC 4834 CV	SL014834
NNC 4836 CV	SL014836
NNC 4838 CV	SL014838
NNC 4840 CV	SL014840
NNC 4844 CV	SL014844
NNC 4848 CV	SL014848
NNC 4852 CV	SL014852
NNC 4856 CV	SL014856
NNC 4860 CV	SL014860
NNC 4864 CV	SL014864
NNC 4868 CV	SL014868
NNC 4872 CV	SL014872
NNC 4876 CV	SL014876
NNC 4880 CV	SL014880
NNC 4912 CV	SL014912
NNC 4914 CV	SL014914
NNC 4916 CV	SL014916
NNC 4918 CV	SL014918
NNC 4920 CV	SL014920
NNC 4922 CV	SL014922
NNC 4924 CV	SL014924
NNC 4926 CV	SL014926
NNC 4928 CV	SL014928
NNC 4930 CV	SL014930
NNC 4932 CV	SL014932
NNC 4934 CV	SL014934
NNC 4936 CV	SL014936
NNC 4938 CV	SL014938
NNC 4940 CV	SL014940
NNC 4944 CV	SL014944
NNC 4948 CV	SL014948
NNC 4952 CV	SL014952
NNC 4956 CV	SL014956
NNC 4960 CV	SL014960
NNC 4964 CV	SL014964
NNC 4968 CV	SL014968
NNC 4972 CV	SL014972
NNC 4976 CV	SL014976
NNC 4980 CV	SL014980

DESIGNATION SKF	DESIGNATION ISB
SIGLA SKF	SIGLA ISB
NNCL 4830 CV	SL024830
NNCL 4832 CV	SL024832
NNCL 4834 CV	SL024834
NNCL 4836 CV	SL024836
NNCL 4838 CV	SL024838
NNCL 4840 CV	SL024840
NNCL 4844 CV	SL024844
NNCL 4848 CV	SL024848
NNCL 4852 CV	SL024852
NNCL 4856 CV	SL024856
NNCL 4860 CV	SL024860
NNCL 4864 CV	SL024864
NNCL 4868 CV	SL024868
NNCL 4872 CV	SL024872
NNCL 4876 CV	SL024876
NNCL 4880 CV	SL024880
NNCL 4884 CV	SL024884
NNCL 4888 CV	SL024888
NNCL 4892 CV	SL024892
NNCL 4896 CV	SL024896
NNCL 48/500 CV	SL02 48/500
NNCL 4912 CV	SL024912
NNCL 4914 CV	SL024914
NNCL 4916 CV	SL024916
NNCL 4918 CV	SL024918
NNCL 4920 CV	SL024920
NNCL 4922 CV	SL024922
NNCL 4924 CV	SL024924
NNCL 4926 CV	SL024926
NNCL 4928 CV	SL024928
NNCL 4930 CV	SL024930
NNCL 4932 CV	SL024932
NNCL 4934 CV	SL024934
NNCL 4936 CV	SL024936
NNCL 4938 CV	SL024938
NNCL 4940 CV	SL024940
NNCL 4944 CV	SL024944
NNCL 4948 CV	SL024948
NNCL 4952 CV	SL024952
NNCL 4956 CV	SL024956
NNCL 4960 CV	SL024960
NNCL 4964 CV	SL024964
NNCL 4968 CV	SL024968
NNCL 4972 CV	SL024972
NNCL 4976 CV	SL024976
NNCL 4980 CV	SL024980
NNCL 4984 CV	SL024984



SL0450..-PP / SL04..-PP



SL1850

DESIGNATION SKF	DESIGNATION ISB
SIGLA SKF	SIGLA ISB
NNF 130-ZLSNV	SL04130 PP
NNF 140-ZLSNV	SL04140 PP
NNF 150-ZLSNV	SL04150 PP
NNF 160-ZLSNV	SL04160 PP
NNF 170-ZLSNV	SL04170 PP
NNF 180-ZLSNV	SL04180 PP
NNF 190-ZLSNV	SL04190 PP
NNF 200-ZLSNV	SL04200 PP
NNF 220-ZLSNV	SL04220 PP
NNF 240-ZLSNV	SL04240 PP
NNF 260-ZLSNV	SL04260 PP
NNF 300-ZLSNV	SL04300 PP
NNF 5004-ZLSNV	SL045004 PP
NNF 5005-ZLSNV	SL045005 PP
NNF 5006-ZLSNV	SL045006 PP
NNF 5007-ZLSNV	SL045007 PP
NNF 5008-ZLSNV	SL045008 PP
NNF 5009-ZLSNV	SL045009 PP
NNF 5010-ZLSNV	SL045010 PP
NNF 5011-ZLSNV	SL045011 PP
NNF 5012-ZLSNV	SL045012 PP
NNF 5013-ZLSNV	SL045013 PP
NNF 5014-ZLSNV	SL045014 PP
NNF 5015-ZLSNV	SL045015 PP
NNF 5016-ZLSNV	SL045016 PP
NNF 5017-ZLSNV	SL045017 PP
NNF 5018-ZLSNV	SL045018 PP
NNF 5019-ZLSNV	SL045019 PP
NNF 5020-ZLSNV	SL045020 PP
NNF 5022-ZLSNV	SL045022 PP
NNF 5024-ZLSNV	SL045024 PP
NNF 5026-ZLSNV	SL045026 PP
NNF 5028-ZLSNV	SL045028 PP
NNF 5030-ZLSNV	SL045030 PP
NNF 5032-ZLSNV	SL045032 PP
NNF 5034-ZLSNV	SL045034 PP
NNF 5036-ZLSNV	SL045036 PP
NNF 5038-ZLSNV	SL045038 PP
NNF 5040-ZLSNV	SL045040 PP
NNF 5044-ZLSNV	SL045044 PP
NNF 5048-ZLSNV	SL045048 PP
NNF 5052-ZLSNV	SL045052 PP
NNF 5056-ZLSNV	SL045056 PP
NNF 5060-ZLSNV	SL045060 PP

DESIGNATION SKF	DESIGNATION ISB
SIGLA SKF	SIGLA ISB
NNCF 5004 CV	SL185004
NNCF 5005 CV	SL185005
NNCF 5006 CV	SL185006
NNCF 5007 CV	SL185007
NNCF 5008 CV	SL185008
NNCF 5009 CV	SL185009
NNCF 5010 CV	SL185010
NNCF 5011 CV	SL185011
NNCF 5012 CV	SL185012
NNCF 5013 CV	SL185013
NNCF 5014 CV	SL185014
NNCF 5015 CV	SL185015
NNCF 5016 CV	SL185016
NNCF 5017 CV	SL185017
NNCF 5018 CV	SL185018
NNCF 5020 CV	SL185020
NNCF 5022 CV	SL185022
NNCF 5024 CV	SL185024
NNCF 5026 CV	SL185026
NNCF 5028 CV	SL185028
NNCF 5030 CV	SL185030
NNCF 5032 CV	SL185032
NNCF 5034 CV	SL185034
NNCF 5036 CV	SL185036
NNCF 5038 CV	SL185038
NNCF 5040 CV	SL185040
NNCF 5044 CV	SL185044
NNCF 5048 CV	SL185048
NNCF 5052 CV	SL185052
NNCF 5056 CV	SL185056
NNCF 5060 CV	SL185060
NNCF 5064 CV	SL185064
NNCF 5068 CV	SL185068
NNCF 5072 CV	SL185072
NNCF 5076 CV	SL185076
NNCF 5080 CV	SL185080
NNCF 5084 CV	SL185084
NNCF 5088 CV	SL185088
NNCF 5092 CV	SL185092
NNCF 5096 CV	SL185096
NNCF 50/500 CV	SL18 50/500



SL1818, SL1829, SL1830, SL1822

DESIGNATION SKF	DESIGNATION ISB
SIGLA SKF	SIGLA ISB
NCF 1840 CV	SL181840
NCF 1844 CV	SL181844
NCF 1848 CV	SL181848
NCF 1852 CV	SL181852
NCF 1856 CV	SL181856
NCF 1860 CV	SL181860
NCF 1864 CV	SL181864
NCF 1868 CV	SL181868
NCF 1872 CV	SL181872
NCF 1876 CV	SL181876
NCF 1880 CV	SL181880
NCF 1884 CV	SL181884
NCF 1888 CV	SL181888
NCF 1892 CV	SL181892
NCF 1896 CV	SL181896
NCF 18/500 CV	SL18 18/500
NCF 18/530 CV	SL18 18/530
NCF 18/560 CV	SL18 18/560
NCF 18/600 CV	SL18 18/600
NCF 18/630 CV	SL18 18/630
NCF 18/670 CV	SL18 18/670
NCF 29/500 CV	SL18 29/500
NCF 2204 CV	SL182204
NCF 2205 CV	SL182205
NCF 2206 CV	SL182206
NCF 2207 CV	SL182207
NCF 2208 CV	SL182208
NCF 2209 CV	SL182209
NCF 2210 CV	SL182210
NCF 2211 CV	SL182211
NCF 2212 CV	SL182212
NCF 2213 CV	SL182213
NCF 2214 CV	SL182214
NCF 2215 CV	SL182215
NCF 2216 CV	SL182216
NCF 2217 CV	SL182217
NCF 2218 CV	SL182218
NCF 2219 CV	SL182219
NCF 2220 CV	SL182220
NCF 2222 CV	SL182222
NCF 2224 CV	SL182224
NCF 2226 CV	SL182226
NCF 2228 CV	SL182228
NCF 2230 CV	SL182230
NCF 2234 CV	SL182234
NCF 2236 CV	SL182236
NCF 2238 CV	SL182238

DESIGNATION SKF	DESIGNATION ISB
SIGLA SKF	SIGLA ISB
NCF 2240 CV	SL182240
NCF 2912 CV	SL182912
NCF 2913 CV	SL182913
NCF 2914 CV	SL182914
NCF 2915 CV	SL182915
NCF 2916 CV	SL182916
NCF 2917 CV	SL182917
NCF 2918 CV	SL182918
NCF 2919 CV	SL182919
NCF 2920 CV	SL182920
NCF 2922 CV	SL182922
NCF 2924 CV	SL182924
NCF 2926 CV	SL182926
NCF 2928 CV	SL182928
NCF 2930 CV	SL182930
NCF 2932 CV	SL182932
NCF 2934 CV	SL182934
NCF 2936 CV	SL182936
NCF 2938 CV	SL182938
NCF 2940 CV	SL182940
NCF 2944 CV	SL182944
NCF 2948 CV	SL182948
NCF 2952 CV	SL182952
NCF 2956 CV	SL182956
NCF 2960 CV	SL182960
NCF 2964 CV	SL182964
NCF 2968 CV	SL182968
NCF 2972 CV	SL182972
NCF 2976 CV	SL182976
NCF 2980 CV	SL182980
NCF 2984 CV	SL182984
NCF 2988 CV	SL182988
NCF 2992 CV	SL182992
NCF 2996 CV	SL182996
NCF 3004 CV	SL183004
NCF 3005 CV	SL183005
NCF 3006 CV	SL183006
NCF 3007 CV	SL183007
NCF 3008 CV	SL183008
NCF 3009 CV	SL183009
NCF 3010 CV	SL183010
NCF 3011 CV	SL183011
NCF 3012 CV	SL183012
NCF 3013 CV	SL183013
NCF 3014 CV	SL183014
NCF 3015 CV	SL183015
NCF 3016 CV	SL183016



SL1818, SL1829, SL1830, SL1822



SL1923

DESIGNATION SKF	DESIGNATION ISB
SIGLA SKF	SIGLA ISB
NCF 3017 CV	SL183017
NCF 3018 CV	SL183018
NCF 3020 CV	SL183020
NCF 3022 CV	SL183022
NCF 3024 CV	SL183024
NCF 3026 CV	SL183026
NCF 3028 CV	SL183028
NCF 3030 CV	SL183030
NCF 3032 CV	SL183032
NCF 3034 CV	SL183034
NCF 3036 CV	SL183036
NCF 3038 CV	SL183038
NCF 3040 CV	SL183040
NCF 3044 CV	SL183044
NCF 3048 CV	SL183048
NCF 3052 CV	SL183052
NCF 3056 CV	SL183056
NCF 3060 CV	SL183060
NCF 3064 CV	SL183064
NCF 3068 CV	SL183068
NCF 3072 CV	SL183072
NCF 3076 CV	SL183076
NCF 3080 CV	SL183080

DESIGNATION SKF	DESIGNATION ISB
SIGLA SKF	SIGLA ISB
NJG 2305 VH	SL192305
NJG 2306 VH	SL192306
NJG 2307 VH	SL192307
NJG 2308 VH	SL192308
NJG 2309 VH	SL192309
NJG 2310 VH	SL192310
NJG 2311 VH	SL192311
NJG 2312 VH	SL192312
NJG 2313 VH	SL192313
NJG 2314 VH	SL192314
NJG 2316 VH	SL192316
NJG 2317 VH	SL192317
NJG 2318 VH	SL192318
NJG 2319 VH	SL192319
NJG 2320 VH	SL192320
NJG 2322 VH	SL192322
NJG 2324 VH	SL192324

Introduzione

Le forniture dei prodotti, presenti in questo documento, sono regolate dalle seguenti condizioni generali di vendita. Sarà necessario un preventivo accordo scritto con il Fornitore per ulteriori ed eventuali clausole e/o condizioni particolari richieste dai Clienti. Sono da ritenersi inaccettabili, tutte le clausole e/o condizioni contrattuali in contrasto con quanto sotto riportato.

1) Offerte ed ordini

Le offerte mantengono una validità di 30 giorni dalla data di comunicazione al Cliente. Decorso questo termine senza avere ricevuto l'ordine, il Fornitore avrà la facoltà di accettare o non accettare l'ordinazione tardiva. Tutti gli ordini dovranno indicare sempre la tipologia del prodotto, la quantità e la data di consegna richiesta.

Il Fornitore si riserva il diritto di fornire eventualmente altri prodotti aventi le stesse caratteristiche merceologiche di quelli ordinati. Gli ordini sono da intendersi impegnativi per il Cliente, anche senza la forma scritta. Il Fornitore avrà il medesimo obbligo al momento dell'invio della conferma d'ordine (escluse le eccezioni ai punti due e cinque).

2) Prezzi

I prezzi validi di riferimento sono quelli indicati nell'offerta e/o nell'accettazione dell'ordine e sono riferiti solo a prodotti standard. I prezzi relativi a tipologie speciali di prodotto e/o non standard ovvero a richiesta specifica del Cliente, saranno concordati per ogni singolo ordine di volta in volta tra le parti. Il Fornitore si riserva il diritto, per esigenze produttive e/o d'approvvigionamento, di fornire una quantità di prodotto con variazione pari a $\pm 15\%$ rispetto alla quantità concordata con il Cliente. Nel corso delle diverse forniture qualora dovessero verificarsi degli aumenti causati da variazioni quali: aumento delle materie prime, del costo della mano d'opera del costo dei trasporti, delle imposte e dazi, ed anche altri aumenti che comportino aumenti del prodotto per il Fornitore, questo potrà a proprio insindacabile giudizio adeguare i prezzi, comunicando l'entità di tale aumento al Cliente. Le quotazioni dei prodotti, sono da intendersi franco sede del Fornitore, escluso imballo ed IVA.

3) Consegna

La consegna, è da intendersi terminata ed eseguita nel momento in cui i prodotti sono messi a disposizione del Cliente al banco, presso la sede del Fornitore o con la consegna al vettore/spedizioniere. Se il Cliente non ha dato precise istruzioni sulle modalità di spedizione dei prodotti o non ha provveduto in modo celere al loro ritiro, il Fornitore potrà conservarli presso i propri locali; a rischio e pericolo ed a spese del Cliente, senza alcuna responsabilità per la loro conservazione o spedirli con mezzi propri o corrieri di propria scelta.

4) Termini di consegna

I termini di consegna indicati dal Fornitore, sono indicativi e non hanno carattere essenziale e perentorio. La loro inosservanza non costituirà in alcun caso motivo di risoluzione del contratto e/o risarcimento d'alcun danno di qualsiasi natura. I termini saranno rispettati per quanto possibile, poiché la consegna dipende da soggetti terzi rispetto al Fornitore. Il Fornitore potrà risolvere il contratto e/o modificare i termini di consegna, senza che ciò possa costituire in alcun modo motivo di risarcimento e/o pagamento d'indennità per eventuali danni subiti dai Clienti, nei seguenti casi:

- I. Inadempienza dei pagamenti e/o pendenze debitorie da parte del Cliente.
- II. Difficoltà in fase d'approvvigionamento dei prodotti.
- III. Modifiche alle condizioni contrattuali dopo il ricevimento dell'ordine.
- IV. Eventi di causa e/o forza maggiore, non imputabili alla volontà del Fornitore, quali a titolo di esempio scioperi di vario genere, calamità naturali, epidemie, sommosse, tumulti, guerre, blocchi doganali che possono gravare sul Fornitore stesso o sulle sue fonti d'approvvigionamento.
- V. Inesattezze o ritardi da parte del Cliente nella conferma dell'ordine.

Per i fatti riportati ai punti I-III-V il Fornitore potrà chiedere il risarcimento dei danni al Cliente.

Introduction

The supply of the products covered by this document is governed by the following general conditions of sale. Any additional clauses and/or special conditions requested by Customers shall only be valid in case of prior written agreement with the Supplier. All contract clauses and/or conditions in conflict with the terms set out below shall be considered unacceptable.

1) Offers and orders

Offers are valid for 30 days from the date of communication to the Customer. If no order is received within this period, the Supplier shall have the option of accepting or rejecting late orders, at its own discretion. All orders must always state the type of product, the quantity and the delivery date required. The Supplier reserves the right to supply different products with the same characteristics as those ordered. Orders are binding on the Customer even if not in writing. Orders shall also be binding on the Supplier once the confirmation of order has been dispatched (with the exceptions in points two and five below).

2) Prices

The valid reference prices are those stated in the offer and/or the order acceptance, and refer to standard products only. The prices relating to special and/or nonstandard product types, or to specific requests from the Customer, shall be agreed between the parties for each order on a one-off basis. Depending on production and/or procurement requirements, the Supplier reserves the right to supply a quantity of product with variation of $\pm 15\%$ from the quantity agreed with the Customer. Over a series of shipments, if increases occur due to variations such as increases in raw material costs, in the cost of labour, freight costs, taxes and duties, or any other increases which lead to increases in the cost of the product for the Supplier, the latter may adjust the prices accordingly, at its own absolute discretion, informing the Customer of the amount of any such increase. Quotations for products are ex-works Supplier's factory, not including packaging or VAT.

3) Delivery

Delivery is considered to have taken place when the products are placed on the Customer's disposal on the counter on the Supplier's premises, or on consignment to the carrier/forwarding agent. If the Customer has not given clear instructions concerning the procedures for shipment of the products, or has not arranged for their prompt collection, the Supplier may store them on its own premises, at the Customer's risk and expense, without any responsibility for their conservation, or may ship them using its own vehicles or carriers of its choice.

4) Delivery terms

The delivery terms stated by the Supplier are guideline and not binding. In no case shall failure to meet them constitute grounds for termination of the contract and/or for compensation for any damage of any kind. Delivery terms shall be complied with as far as possible, since delivery depends on third parties over which the Supplier has no control. The Supplier may terminate the contract and/or modify the delivery terms, without this constituting grounds for compensation and/or payment of damages for any costs or losses incurred by the Customer, in the following cases:

- I. Failure to meet payment terms and/or outstanding debts on the part of the Customer.
- II. Difficulty in procurement of the products.
- III. Modifications of the contract conditions after receipt of the order.
- IV. Circumstances of force majeure, beyond the Supplier's control, such as, for example, strikes of various kinds, natural disasters, epidemics, uprisings, riots, wars or customs blockades which may affect the Supplier itself or its sources of supply.
- V. Inaccuracies or delays on the part of the Customer in confirming the order.

In the circumstances listed in points I-III-V, the Supplier may request compensation from the Customer.

5) Spedizioni

Le spedizioni sono sempre eseguite per conto dei Clienti, pertanto a loro rischio e pericolo, anche nei casi di trasporti "franco destino". Nel caso d'eventuali manomissioni o ammanchi imputabili espressamente al vettore/spedizioniere, sarà obbligo del Cliente stesso di presentare reclamo direttamente al vettore/ spedizioniere. Il Fornitore, potrà accettare reclami per eventuali differenze, qualitative e quantitative dei prodotti, solamente se comunicate da parte del Cliente, in forma scritta entro otto giorni dalla data di ricevimento dei prodotti, a pena di decadenza da ogni e qualsiasi reclamo. In mancanza d'istruzioni dettagliate da parte del Cliente, il Fornitore non sarà responsabile, sia per la scelta dei mezzi di trasporto, sia per le tariffe applicate dai vettori/spedizionieri. Inoltre qualora non sussista accordo tra le parti, le spese di spedizione sono da intendersi a cura ed a carico del Cliente. Nei casi in cui anche solo una parte delle spese di trasporto sia a carico del Fornitore, quest'ultimo potrà servirsi dei mezzi più economici a propria insindacabile scelta. Gli ulteriori aggravii e oneri aggiuntivi nei costi di trasporto saranno ad esclusivo carico del Cliente. Per errori di consegna causati dal Cliente, con conseguente reso dei prodotti, il Fornitore avrà il diritto di addebitare al Cliente le spese di spedizione se dovute, ed il 15% del prezzo dei prodotti.

6) Pagamenti

Il Cliente non potrà sospendere ovvero ritardare i pagamenti della merce per nessun motivo e dovranno essere eseguiti al domicilio del Fornitore, come indicato nei documenti che accompagnano la spedizione dei prodotti. Non saranno considerati validi pagamenti effettuati in luoghi diversi, salvo che non siano stati concordati preventivamente con il Fornitore. Decorso i termini indicati, il Fornitore avrà diritto al pagamento, oltre alla somma capitale dovuta per il prezzo della merce, anche agli interessi di mora pari all'Euribor aumentato del 3%, avvalendosi del diritto d'agire anche giudizialmente nei confronti del Cliente moroso. Il Fornitore ha la facoltà di sospendere temporaneamente la fabbricazione o la fornitura dei prodotti ancora in ordine; inoltre potrà annullare il residuo dell'ordine stesso, comunicandolo al Cliente, che non avrà diritto ad indennizzi d'alcun genere. Il Fornitore avrà il diritto di ottenere il pagamento delle somme dovutegli per le consegne già eseguite. Per ogni contestazione inerente a prodotti in corso di fabbricazione, pronti per essere spediti o già in possesso del Cliente, quest'ultimo non è liberato dai propri obblighi e dovrà provvedere al pagamento, alla data stabilita, di quanto dovuto al Fornitore.

7) Garanzia

La garanzia s'estende per un anno dalla data di consegna dei prodotti; è limitata esclusivamente alla riparazione o alla sostituzione gratuita dei pezzi riconosciuti non conformi rispetto alle specifiche riportate sui cataloghi tecnici. La responsabilità della garanzia del Fornitore decade per tutti i prodotti che hanno subito manomissioni, sovraccarichi d'esercizio, lubrificazioni, riparazioni errate o errori in fase di montaggio, quindi per problemi causati da un utilizzo improprio del Cliente e pertanto non più restituibili al Fornitore. Il Cliente inoltre è tenuto ad avvertire il Fornitore per eventuali difetti, vizi o non conformità dei prodotti entro otto giorni dal ricevimento degli stessi (in forma scritta), pena la decadenza della garanzia. Non saranno accettati reclami trascorsi i termini sopra citati. I reclami non possono causare l'annullamento o la riduzione degli ordini da parte del Cliente, né la corresponsione d'indennizzi e/o risarcimenti da parte del Fornitore. Non si accettano ritorni di prodotti, se non preventivamente autorizzati. Non si accettano ritorni di forniture, per prodotti resi non integri o manomessi o espressamente costruiti, lavorati e/o modificati per il Cliente. Il materiale non conforme dovrà essere reso previa autorizzazione del Fornitore, esente da ogni spesa (franco destino). Sul documento di reso dovranno essere riportati gli estremi del DDT o fattura di vendita relativa (Data e n° - obbligatorio per legge). Il Fornitore non assume alcuna responsabilità per incidenti che possano avvenire nell'utilizzo dei propri prodotti.

5) Shipments

Shipments are always made on the Customer's behalf and therefore at its risk, even in case of delivery "freight prepaid". In case of tampering or missing items for which the carrier/forwarding agent is specifically to blame, the Customer shall be responsible for placing a claim directly with the carrier/forwarding agent. The Supplier will only be able to accept claims for any differences in the quality or quantity of the products if submitted by the Customer, in writing within eight days after the date of receipt of the products; otherwise, all claims shall become null and void. In the absence of detailed instructions from the Customer, the Supplier shall not be responsible for the choice of means of transport or for the rates charged by the carriers/forwarding agents. Moreover, in the absence of agreement between the parties, the shipment expenses shall be payable by the Customer. If even just a part of the freight costs is to be met by the Supplier, the latter shall be permitted to make use of the most economical means of transport, at its own absolute discretion. Any additional freight costs and/or charges shall be solely for the Customer's account. For errors in delivery caused by the Customer which result in return of the products, the Supplier shall be entitled to charge the Customer the shipment expenses, if due, plus 15% of the price of the products.

6) Payment

The Customer shall not be permitted to suspend or delay payments for goods for any reason, and payments must be made to the Supplier's domicile, as stated in the documents which accompany the shipment of the products. Payments made to other places shall not be considered valid unless agreed in advance with the Supplier. Once the specified payment terms have passed, the Supplier shall be entitled to payment, not only of the capital sum due for the price of the goods, but also of interest at the Euribor rate increased by 3%, and retains the right to take legal action against any Customer late with payments. The Supplier shall be entitled to temporarily suspend the manufacture or supply of any products still on order; it may also cancel the remainder of the order, informing the Customer, which shall not be entitled to compensation of any kind. The Supplier shall be entitled to obtain payment of the sums due to it for the deliveries already made. In case of any disputes concerning products being manufactured, ready for shipment or already in the Customer's possession, the latter shall not be released from its obligations and must pay the amounts due to the Supplier at the date set.

7) Warranty

The warranty is valid for one year from the date of delivery of the products; it is limited solely to the repair or replacement, free of charge, of pieces acknowledged not to comply with the specifications stated in the technical catalogues. The Supplier's warranty ceases to apply to all products which have been tampered with, operated with overloads, improperly lubricated or repaired, or incorrectly assembled; in other words, for all problems caused by improper use by the Customer, for which the Supplier is not responsible. The Customer is also obliged to inform the Supplier about any defects, faults or non-conformity of the products within eight days after the date of receipt of the same (in writing); otherwise, the warranty shall become null and void. No claims shall be accepted once the above terms have expired. Claims shall not constitute grounds for the cancellation or reduction of orders on the part of the Customer, or the payment of damages and/or compensation on the part of the Supplier. No returns of products are accepted unless authorised in advance. No returns are accepted of products which are not intact, have been tampered with, or have been specifically built, processed and/or modified for the Customer. Non-conforming material must be returned, further to the Supplier's authorisation, with all expenses paid (freight prepaid). The return document must contain the details of the original transport document or invoice (date and number - compulsory by law). The Supplier does not accept any responsibility for accidents occurring during the use of its products.

8) Prodotti speciali e/o a disegno

Il Fornitore qualora accetti commesse di prodotti speciali o su particolari specifici che tecniche del Cliente, dovrà sempre ricevere un disegno tecnico dettagliato prima di procedere alla produzione. Dopo aver accettato l'ordine e previa consegna del disegno tecnico, il Fornitore invierà al Cliente una campionatura del prodotto. Il Cliente, dopo averne preso visione, dovrà inviare conferma scritta al Fornitore per l'esecuzione dell'intera fornitura. Nel caso in cui il Cliente per motivi non imputabili al Fornitore rifiuti in modo parziale o completo la fornitura, il Fornitore potrà avvalersi del diritto di addebitare le spese per l'esecuzione della campionatura, oltre al mancato guadagno e per gli eventuali danni subiti, trattandosi di prodotti non commercializzabili. Il Fornitore provvederà al ritiro ed alla sostituzione del materiale non conforme, nel caso in cui il Cliente dimostrasse palesemente che le caratteristiche del prodotto fornito non corrispondono a quelle dei campioni consegnati, senza alcuna responsabilità da parte del Fornitore e con rinuncia del Cliente ad ogni richiesta di risarcimento a qualsiasi titolo richiesto.

9) Validità e deroghe delle Condizioni Generali di Vendita

Ogni e qualsiasi deroga o modifica alle sopra indicate condizioni generali di vendita, dovrà essere convenuta in forma scritta tra le parti.

10) Domicilio del Cliente

Il domicilio del Cliente è da intendersi quello ove il Cliente ha la propria sede legale, salvo diversa comunicazione scritta. Il Fornitore pertanto indirizzerà tutte le comunicazioni e le spedizioni dei prodotti in quella sede.

11) Foro competente

Per ogni e qualsiasi controversia sarà competente il foro dove si trova la sede legale del Fornitore.

8) Special and/or custom-made products

If the Supplier accepts orders for special products or those made to the Customer's own technical specifications, it must always receive a detailed technical drawing before proceeding with production. After accepting the order and further to consignment of the technical drawing, the Supplier shall send the Customer a sample lot of the product. After viewing the sample lot, the Customer shall send the Supplier written confirmation for production of the entire ordered amount. If, due to circumstances beyond the Supplier's control, the Customer refuses delivery of all or part of the goods, the Supplier shall be entitled to reimbursement of the expenses for production of the sample lot, and for compensation for loss of earnings and for any damages incurred, since these products are not marketable. The Supplier shall collect and replace non-conforming material if the Customer clearly demonstrates that the characteristics of the product supplied differ from those of the samples consigned, without any liability on the part of the Supplier and with waiver on the part of the Customer of any request for compensation on any grounds.

9) Validity and waivers of the General Conditions of Sale

Any waivers or modifications of the aforesaid general conditions of sale must be agreed between the parties in writing.

10) Customer's Domicile

The Customer shall be domiciled in the place where it has its registered office, unless otherwise notified in writing. The Supplier shall therefore send all communications and shipments of products to the relevant address.

11) Legal jurisdiction

The law court of the Supplier's registered office shall have jurisdiction over all disputes of any kind.

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