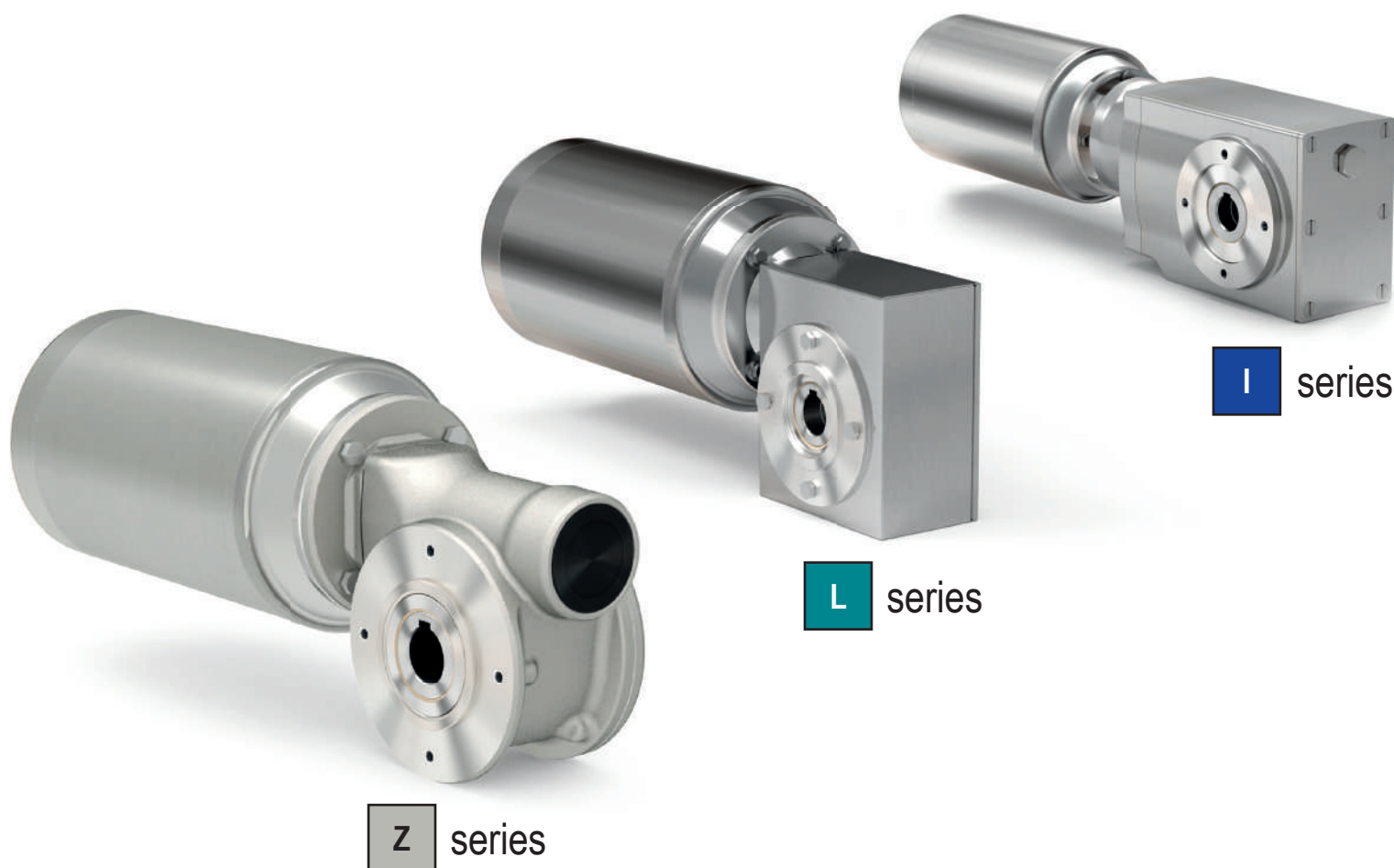




HYGIENIC DESIGN

The image shows three stainless steel high-pressure water spray guns mounted on a vertical stainless steel plate. Each gun is angled differently and is spraying a powerful jet of water. The spray from the top gun is directed upwards and to the right. The middle gun's spray is directed downwards and to the right. The bottom gun's spray is directed downwards and to the left. The water jets are creating a misty, dynamic scene. The background is a plain, light gray.

FEATURES

- HIGH PRESSURE CLEAN UP
- POOLING FREE MOUNTING
- SEALED HOLES
- SEALED OIL PLUGS
- SIMPLE WASHING
- SMOOTH SURFACES
- NO PLASTIC PLUGS

Tradition. Innovation. Dedication.

Cleangeartech eye catching gearboxes are what can be defined as “tradition in the service of innovation”.

A new born business unit, Cleangeartech, has its roots in a long story of two engineers, father and son, who managed to keep up with a continuous technological progress in the mechanical transmission industry.

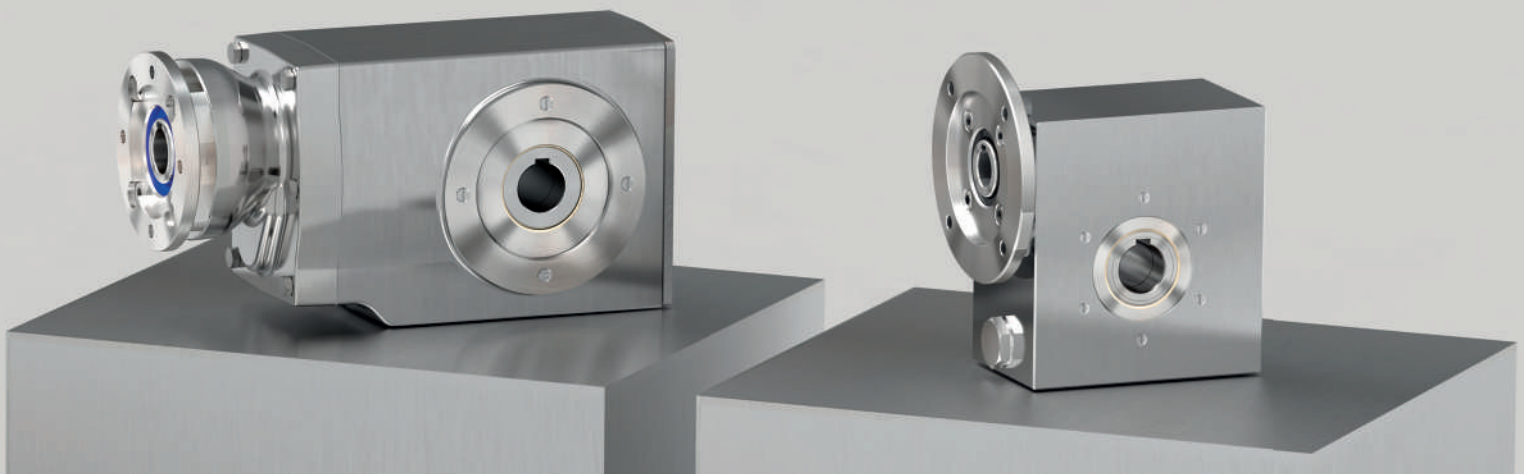
It all began with a hydrodynamic speed variator invented by Giuseppe Speggorin in 1955.

In 1983 Giuseppe's son, Stefano Speggorin, founded his own company, Hydro-Mec Spa, now one important manufactures of high quality and modular gearboxes.

In 2006 Stefano decided to face another challenge, this time coming directly from the end users. He designed a range of stainless steel products initially for food industry; same year Hydro-Mec started manufacturing. As time passed, it became obvious that this project deserved its own story.

In 2016 Cleangeartech brand and business unit started.

Today it is division with a highly technological manufacturing, evolving worldwide sales network and a strong focus on R&D activities. Cleangeartech is deeply committed to providing a high level of service supplying an exceptional product to such demanding industries like Food & Beverage, Meat & Poultry, Marine, Chemical and Pharmaceutical.



Tradizione. Innovazione. Dedizione.

I riduttori della Cleangeartech possono essere definiti come simbolo della “tradizione al servizio dell’innovazione”.

Oggi Cleangeartech sviluppa le sue radici nella lunga storia di successo di due ingegneri, padre e figlio, i quali hanno saputo tenere il passo del continuo progresso tecnologico nel settore della trasmissione meccanica.

Tutto ebbe inizio nel 1955 quando Giuseppe Speggorin inventò il variatore idraulico.

Nel 1983 il figlio di Giuseppe, Stefano Speggorin, in seguito a molti anni di affiancamento al padre, fondò la sua azienda, Hydro-Mec Spa, oggi un importante produttore Italiano di riduttori modulari.

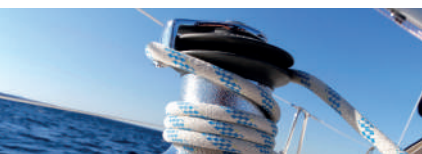
Successivamente, nel 2006, si decise di affrontare un'altra sfida, ma questa volta proveniente dagli utilizzatori finali, e questo diede origine ad una gamma di prodotti in acciaio inossidabile, inizialmente dedicata all'industria alimentare, messa poi in produzione nel corso dello stesso anno. Con il passare del tempo divenne sempre più evidente che questo progetto meritava di avere una storia tutta sua. A questo proposito, nel 2016, nacque la divisione Cleangeartech.

Oggi è una azienda con una produzione ad alto livello tecnologico, una rete distributiva globale in costante evoluzione e una particolare dedizione alla ricerca e allo sviluppo. Cleangeartech è profondamente impegnata ad offrire un elevato livello di servizio, fornendo prodotti di eccellenza per settori molto esigenti, quali Alimentare e Bevande, Carne e Pollame, Navale, Chimica e Farmaceutica.

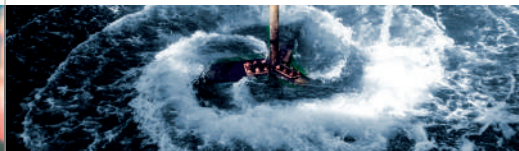
OEM Applications guide

Guida alle applicazioni per gli OEM

Z L I Z Series <i>Serie Z</i> L Series <i>Serie L</i> I Series <i>Serie I</i>	Conditions of use Condizioni di utilizzo	Suggested range Gamma suggerita			
		Possible contact with processing product Possibile contatto con il prodotto		Only in proximity to the processing product In prossimità del prodotto	
		Best	Medium	Best	Medium
Meat & Poultry Industria della carne 	Salt Salato	I L		L	
	Acid sanitization Lavaggio acido	I L		L	
	Alkaline sanitization Lavaggio alcalino	I	L	L	Z
	Normal cleaning - Moist Lavaggio normale - umidità	I	L Z	Z	
Seafood Processing Industria della lavorazione del pesce 	Salt Salato	I L		L	
	Acid sanitization Lavaggio acido	I L		L	
	Alkaline sanitization Lavaggio alcalino	I	L	L	Z
	Normal cleaning - Moist Lavaggio normale - umidità	I	L	Z	
Fruit & Vegetables Frutta e verdura 	Salt Salato			L	
	Acid sanitization Lavaggio acido			L	
	Alkaline sanitization Lavaggio alcalino	I	L	L	Z
	Normal cleaning - Moist Lavaggio normale - umidità	I	L Z	Z	
Dairy Latte e derivati 	Salt Salato	I L		L	
	Acid sanitization Lavaggio acido	I L		L	
	Alkaline sanitization Lavaggio alcalino	I	L	Z	
	Normal cleaning - Moist Lavaggio normale - umidità	I	L	Z	
Flours and derivatives Farine e derivati 	Salt Salato	I L			
	Acid sanitization Lavaggio acido	I L			
	Alkaline sanitization Lavaggio alcalino	I	L	Z	
	Normal cleaning Lavaggio normale	I	L Z	Z	
Beverage Bevande 	Salt Salato	I L		L	
	Acid sanitization Lavaggio acido	I L		L	
	Alkaline sanitization Lavaggio alcalino	I	L	Z	
	Normal cleaning - Moist Lavaggio normale - umidità	I	L Z	Z	

Z Z Series Serie Z L L Series Serie L I I Series Serie I		Conditions of use Condizioni di utilizzo	Suggested range Gamma suggerita			
			Possible contact with processing product Possibile contatto con il prodotto		Only in proximity to the processing product In prossimità del prodotto	
			Best	Medium	Best	Medium
Food packaging processing Imballaggio alimentare 	Salt Salato	I	L		L	
	Acid sanitization Lavaggio acido	I	L		L	
	Alkaline sanitization Lavaggio alcalino	I		L		Z
	Normal cleaning - Moist Lavaggio normale - umidità	I		L	Z	Z
Bakery applications Prodotti da forno 	Salt Salato					
	Acid sanitization Lavaggio acido					
	Alkaline sanitization Lavaggio alcalino	I				Z
	Normal cleaning Lavaggio normale	I		Z		Z
Animal food applications Mangimi 	Salt Salato	I	L		L	
	Acid sanitization Lavaggio acido	I	L		L	
	Alkaline sanitization Lavaggio alcalino	I				Z
	Normal cleaning - Moist Lavaggio normale - umidità	I		Z		Z
Marine Settore marino e navale 	On deck Esterno				L	
	Indoor Sotto coperta				I	

For the Z series due to the infinite variety of chemical mixtures please use our test plate to test the following fields
Data l'infinita varietà di misture chimiche, per la serie Z è consigliato usare la nostra targhetta per effettuare eventuali test

Pharmaceutical & Chemical <i>Chimica & Farmaceutica</i>	Highly corrosive and harsh environment <i>Ambiente altamente corrosivo</i>	Outdoor application <i>Applicazioni in ambiente esterno</i>
		

3 Lines of specific products

Gamme di prodotto

Z NTT series

Aluminum worm gearboxes
with NTT treatment

*Riduttori a vite senza fine in alluminio
con trattamento NTT*



Aluminum ratio multipliers
with NTT treatment

*Riduttori coassiali ad uno stadio
in alluminio con trattamento NTT*

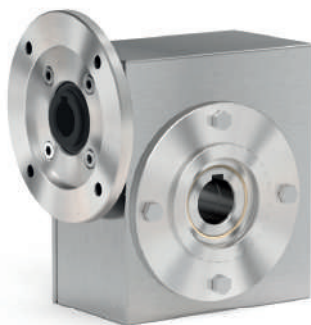


L SHIELD series

PATENTED

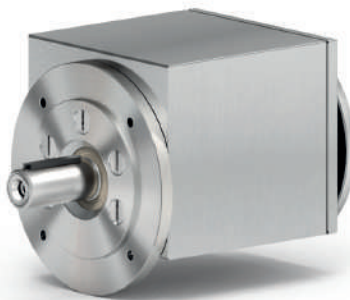
Worm gearboxes

Riduttori a vite senza fine



Coaxial gearboxes

Riduttori coassiali



Helical bevel gearboxes

Riduttori a coppia conica



I FULL STAINLESS STEEL series

Worm gearboxes

Riduttori a vite senza fine



Ratio multipliers

Riduttori coassiali ad uno stadio



Helical bevel gearboxes

Riduttori a coppia conica



APM series

Aluminum electric motors
Motori elettrici in alluminio

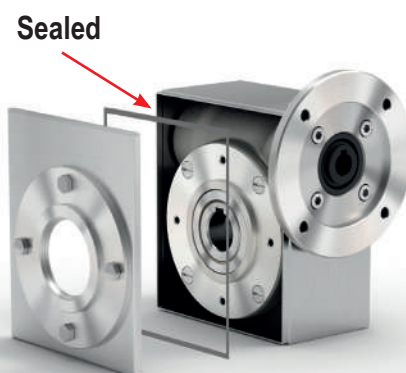


A range suitable for applications where no ribs are required to hold dust, in close position to the products processed, usable in applications with light sanitization processes.

Una gamma adatta per applicazioni in cui è richiesto un design igienico posizionabile in vicinanza dei prodotti trattati, con processi di lavaggio e sanificazione leggera.

The “L” series is an aluminum gearbox completely shielded and sealed with stainless steel 316L case, an alternative to the full stainless steel products, suitable for many applications in contact with detergents, chemicals, wash down and salty environment.

Una gamma di riduttori in alluminio completamente sigillati e schermati all'interno di un carter sigillato in acciaio inox 316L, un'alternativa ai prodotti interamente in acciaio inossidabile, adatta per molte applicazioni a contatto con detersivi, prodotti chimici, lavaggi e ambienti salati.



SPM series

Stainless steel
premium electric motors
Motori elettrici in acciaio inox



Strong full stainless steel products, suitable for most applications requiring a very high degree of protection against long term maintenance is possible.

Una gamma completamente in acciaio inossidabile, adatta alla maggior parte delle applicazioni che richiedono un grado molto alto di protezione.

Premium input coupling

Giunto in entrata

PATENTED

Direct mounting - No settings - No screw

Montaggio diretto - No settaggi - No viti

1



* Do not mount oil seals on motor flange

Non montare anelli di tenuta nella flangia motore

2



Motor assembly

Assemblaggio motore

3



Available as an option for the motor range from IEC 56 to IEC 112

Disponibile come opzione per motori da IEC 56 a IEC 112

Coupling chart

Tabella combinazione giunti

						GROUP	INPUT DIAMETER Ø	MATERIAL P = Polymer Z = Zamak	
Z30	-	-	-	I30	-	KA	09	P	
							11	P	
Z45	LD45	-	-	I45	-	KB	09	P	
							11	P	
							14	P	
Z50	LD50	-	X22L	I50	-	KC	09	P	
							11	P	
							14	P	
							19	Z	
Z63	LD63	402L	X32L X42L	I63	X42I	KD	11	P	
							14	P	
							19	P	
							24	Z	
Z85	LD85	602L	X52L X62L	I85	X62I	KE	14	P	
							19	P	
							24	Z	
							28	Z	

* While using these couplings, replace the motor shaft key with the shorter one supplied with the kit.
Per l'utilizzo di questi giunti usare la chiavetta ridotta fornita nei kit.

I VFI series

Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Section **7**
Sezione 7

This range is

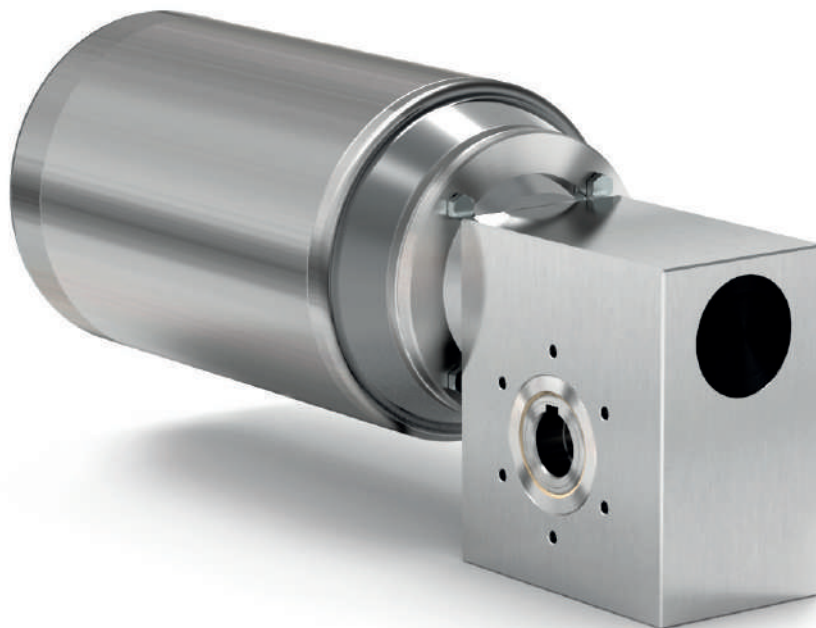
IP69K



CE



certified



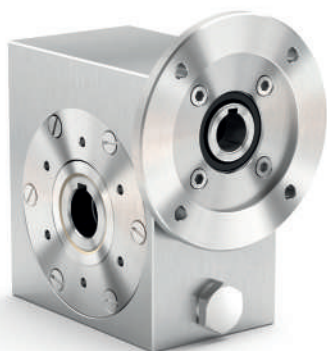
FEATURES

Caratteristiche

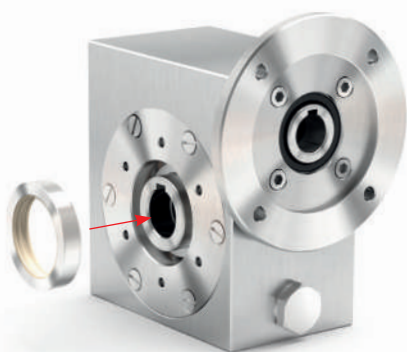
VFI series Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Type <i>Tipo</i>	Torque <i>Coppia</i>	Center distance <i>Interasse</i>	Input power <i>Potenza in entrata</i>	Hollow output shaft <i>Albero cavo in uscita</i>	
I30	21 Nm	30 mm	0.06 ÷ 0.18 kW	ø14 mm	
I45	41 Nm	45 mm	0.12 ÷ 0.37 kW	ø18 mm	ø19 mm
I50	72 Nm	50 mm	0.12 ÷ 0.75 kW	Standard	ø25 mm ø24 mm
I63	147 Nm	63 mm	0.37 ÷ 1.8 kW		ø25 mm ø28 mm
I85	347 Nm	85 mm	0.55 ÷ 4.0 kW		ø35 mm
I11	651 Nm	110 mm	1.1 ÷ 4.0 kW		ø42 mm



This product is:



Twin viton seals with stainless steel 316L shield.



Doppio anello di tenuta in viton con schermo protettivo in acciaio inox AISI 316L.



Mounting holes on both sides of the housing for versatile mounting.

Fori di montaggio in entrambi i lati della cassa.

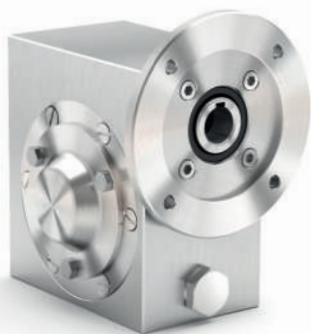
FEATURES

Caratteristiche



**Output shaft is produced in AISI 316L.
Special cover assures full protection of oil seals.**

Albero in uscita in AISI 316L e coperchietto protettivo per anelli di tenuta.



Closed protection cap in AISI 316L with o-ring.

Coperchietto di protezione chiuso in AISI 316L con o-ring.



CuSn12Ni (C91700) Nickel bronze worm gears are centrifugally cast onto an iron hub for maximum strength and superior life. Removable hollow shaft with key for safe torque transmissions.

Corona in bronzo al Nickel CuSn12Ni (C91700) centrifugato e mozzo in acciaio inox per massima resistenza e durata superiore. Albero cavo removibile con chiavetta mozzo/corona.

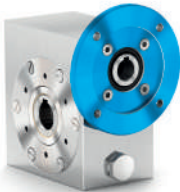


Special high tech full stainless steel housing with accurate finishing and strong rigidity.

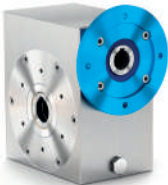
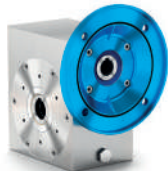
Finitura speciale su una cassa inox che presenta un'alta rigidità strutturale.

How to order

Codifica

P	I50	UN	10	I	
Type <i>Tipo</i>	Size <i>Grandezza</i>	Mounting <i>Montaggio</i>	Ratio <i>Rapporto</i>	Hub <i>Mozzo corona</i>	
P 	I30 I45 I50 I63 I85 I11	UN 	See technical data table <i>Vedi tabelle dati tecnici</i>	I 	
M 		FL 		Standard I30 -> ø14 I45 -> ø18 I50 -> ø25 I63 -> ø25 I85 -> ø35 I11 -> ø42	
B 		BR 		Z Inch I45 -> ø0.750" I50 -> ø1.000" I63 -> ø1.250" I85 -> ø1.500" I11 -> ø2.000"	
R 					

7-5

S	-R	B3	-	With Type M specify terminal box position <i>Con tipo M specificare posizione morsettiera</i>
Output shaft <i>Albero lento</i>	Motor size <i>Grandezza motore</i>	Mounting position <i>Posizione di montaggio</i>	Input bore <i>Foro entrata</i>	Terminal box position <i>Posizione morsettiera</i>
Ø 	Flange <i>Flange</i> 	B3 	- Standard bore <i>Foro standard</i> P Input bore reduced one size <i>Foro entrata ridotto di una entrata</i>	A 
S 	IEC B14 -P -> 63B14 (ø90) -Q -> 71 B14 (ø105) -R -> 80 B14 (ø120) -T -> 90 B14 (ø140) -U -> 100-112B14 (ø160)	B8 	Q Input bore reduced two size <i>Foro entrata ridotto di due misure</i>	B 
	NEMA  -W -> 56C (ø6.5") -X -> 143/5TC (ø6.5") -Y -> 182/4TC (ø8.88") AA -> 213/5TC (ø8.88")	B6 	With coupling <i>Con giunto</i>  B -> 11mm C -> 14mm D -> 19mm E -> 24mm F -> 28mm W -> ø0.625" X -> ø0.875" Y -> ø1.125"	C 
	Without flange <i>Senza flangia</i>  -M -> Metric -N -> Nema	B7 		D 
	Type R <i>Tipo R</i>  -O -> Metric	V5 	0 Ready for input coupling <i>Predisposto per giunto</i> 	
		V6 		

Useful formulas

Formule utili

Required power - Potenza richiesta

Lifting - Sollevamento

Rotation - Rotazione

Linear movement - Traslazione

$$P_{[kW]} = \frac{M_{[Kg]} \cdot g_{[9.81]} \cdot v_{[m/s]}}{1000}$$

$$P_{[kW]} = \frac{M_{[Nm]} \cdot n_{[rpm]}}{9550}$$

$$P_{[kW]} = \frac{F_{[N]} \cdot v_{[m/s]}}{1000}$$

Torque - Coppia

$$M_{[Nm]} = \frac{9550 \cdot P_{[kW]}}{n_{[rpm]}}$$

$$M_{[lb\ in]} = \frac{63030 \cdot P_{[HP]}}{n_{[rpm]}}$$

Radial loads - Carichi radiali

Radial load generated by external transmissions keyed onto input and/or output shafts.

Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.

$$F_R[N] = \frac{M_{[Nm]} \cdot 2000}{d_{[mm]}} \cdot f_k$$

$$F_R[N] = \frac{M_{[lb\ in]} \cdot 8.9}{d_{[in]}} \cdot f_k$$

M: Output torque - *Momento torcente*

d: Diam. of driving element - *Diametro primitivo*

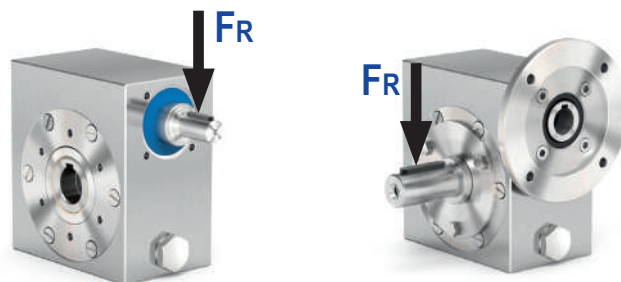
f_k: Factor - *Coefficiente di trasformazione*

1.15: Gearwheels - *Ingranaggi*

1.25: Chain sprockets - *Catena*

1.75: Narrow v-belt pulley - *Cinghia Trapezoidale*

2.50: Flat-belt pulley - *Cinghia piatta*



If your application requires higher radial loads, contact our technical office. Higher loads may be possible.

Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.

How to select a gearbox

Come selezionare un riduttore

A

Select required torque (according to service factor)

Seleziona la coppia desiderata (comprensiva del fattore di servizio)

B

Select output speed

Seleziona la velocità in uscita

C

Select gear ratio in the line corresponding to the chosen motor power

Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione

D

Select motor flange available (if requested)

Scegli la flangia disponibile (se richiesta)

Gear size
Grandezza
riduttore

C

Ratio
Rapporto

Transmitted torque
Momento torcente
trasmesso

Nominal power
Potenza nominale

Flange code
Codice flangia

Dynamic efficiency
Rendimento dinamico

Input speed
Velocità in entrata

I30

21
Nm

VFI series

Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Input speed (n_1) = 1400 min⁻¹

Output speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor $f.s$	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges		B14 motor flanges		Dynamic efficiency RD	Tooth module [mm]	Ratios code
							-	-	-O 56	-P 63			
280	5	0.18	5	3.3	0.60	17			B-C		82	1.26	01
200	7	0.18	7	2.4	0.44	17			B-C		80	1.44	02
140	10	0.18	10	1.8	0.32	17			B-C		78	1.44	03
93	15	0.18	13	1.4	0.25	19			B-C		73	1.44	04
70	20	0.18	17	1.1	0.20	19			B-C		70	1.09	05
47	30	0.12	15	1.4	0.17	21			B-C		62	1.44	06
35	40	0.12	19	1.1	0.13	20			B-C		57	1.09	07
23	61	0.09	19	1.1	0.10	20			B-C		50	0.72	08
17.5	80	0.06	16	1.0	0.06	16			B-C		48	0.56	09
14	100	0.06*	16	0.5	0.03	8			B-C		40	0.45	10

B

Output speed
Velocità in uscita

Motor power
Potenza motore

Service factor
Fattore di servizio

A

Nominal torque
Momento torcente
nominale

Nominal module
Modulo nominale

Notes
Note

Type of load and starts per hour

Tipo di carico e avviamenti per ora

Oper. hours per day

Ore di funz. giorn.

		<2h	2÷8h	8÷16h
Continuous or intermittent application with start / hour <i>Applicazione continua o intermittente con numero operazioni/ora</i>	Uniform - <i>Uniforme</i>	0.9	1	1.25
	Moderate - <i>Moderato</i>	1	1.25	1.5
	Heavy - <i>Forte</i>	1.25	1.5	1.75
Intermittent application with start / hour <i>Applicazione intermittente con numero operazioni/ora</i>	Uniform - <i>Uniforme</i>	1.25	1.5	1.75
	Moderate - <i>Moderato</i>	1.5	1.75	2
	Heavy - <i>Forte</i>	1.75	2	2.25

D

Motor flange available
Flange disponibili

B)

Mounting with reduction bushing
Montaggio con boccola di riduzione

C)

Motor flange holes position/terminal box position
Posizione fori flangia/basetta motore

B)

Available without reduction bushing
Disponibile anche senza boccola

I30

21
Nm

VFI series

Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Input speed (n_1) = 1400 min⁻¹

Output speed	Ratio	Motor power	Output torque	Service factor	Nominal power	Nominal torque	B5 motor flanges		B14 motor flanges		Dynamic efficiency	Tooth module	Ratios code
n_2 [min ⁻¹]	i	P_{1M} [kW]	M_{2M} [Nm]	f.s	P_{1R} [kW]	M_{2R} [Nm]	-	-	-O	-P	RD	[mm]	
280	5	0.18	5	3.3	0.60	17			B-C		82	1.26	01
200	7	0.18	7	2.4	0.44	17			B-C		80	1.44	02
140	10	0.18	10	1.8	0.32	17			B-C		78	1.44	03
93	15	0.18	13	1.4	0.25	19			B-C		73	1.44	04
70	20	0.18	17	1.1	0.20	19			B-C		70	1.09	05
47	30	0.12	15	1.4	0.17	21			B-C		62	1.44	06
35	40	0.12	19	1.1	0.13	20			B-C		57	1.09	07
23	61	0.09	19	1.1	0.10	20			B-C		50	0.72	08
17.5	80	0.06	16	1.0	0.06	16			B-C		48	0.56	09
14	100	0.06*	16	0.5	0.03	8			B-C		40	0.45	10

* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M_{2R}

Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2R}

Motor flanges available
Flange motore disponibili



B) Supplied with reduction bushing
Fornito con bussola di riduzione

B) Available on request without reduction bushing
Disponibile a richiesta senza bussola di riduzione



C) Motor flange holes position
Posizione fori flangia motore

Lubrication

Lubrificazione

Unit I30 is supplied with synthetic oil to assure long life lubrication.
Food grade oil is available on request.

See Table 1 for lubrication and recommended quantity.

See Table 2 for possible radial and axial loads on the gearbox.

Il riduttore tipo I30 viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare.

Vedi Tabella 1 per oli e quantità consigliati.

Vedi Tabella 2 per i carichi radiali e assiali applicabili al riduttore.

Oil quantity for
all positions:
0.06Lt.

Quantità olio per tutte
le posizioni: 0.06Lt

Agip
Telium VSF 320

Shell
Omala S4 WE 320

* For more details on lubrication and plugs check our website.

* Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web.

Tab. 1

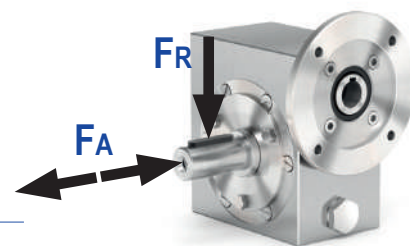
Radial and axial loads

Carichi radiali e assiali

Output shaft

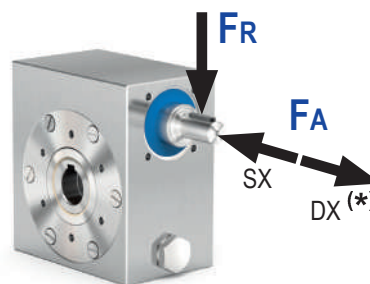
Albero di uscita

n_2 [min ⁻¹]	F_A [N]	F_R [N]
200	120	600
150	140	700
100	160	800
75	180	900
50	200	1000
25	250	1250
15	280	1400



Input shaft

Albero in entrata



n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	20	100

* Strong axial loads in the DX direction are not allowed.

* Non sono consentiti forti carichi assiali con direzione DX

Tab. 2

21
Nm

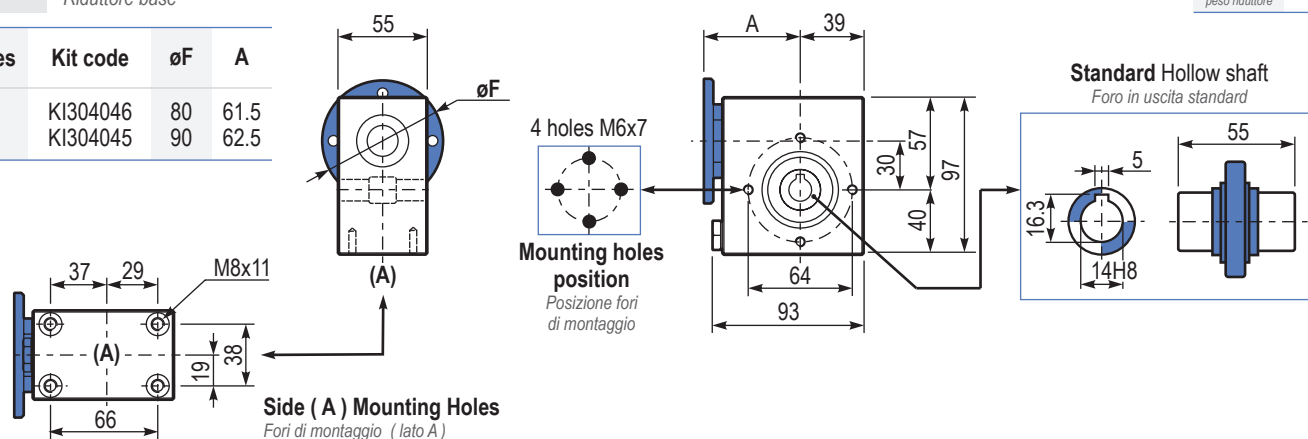
I30

PI30UN...

Basic gearbox
Riduttore base

Gearbox weight
peso riduttore **2.5 kg**

M. flanges	Kit code	øF	A
56B14	KI304046	80	61.5
63B14	KI304045	90	62.5

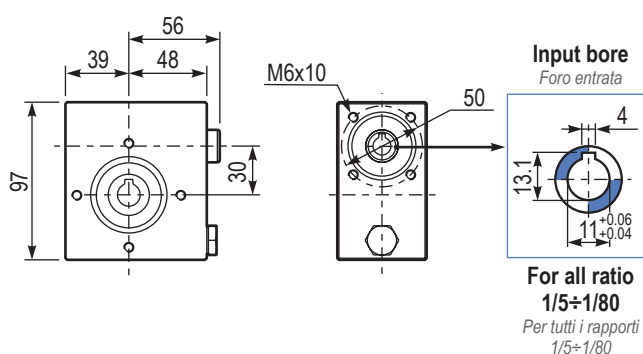


BI30UN...

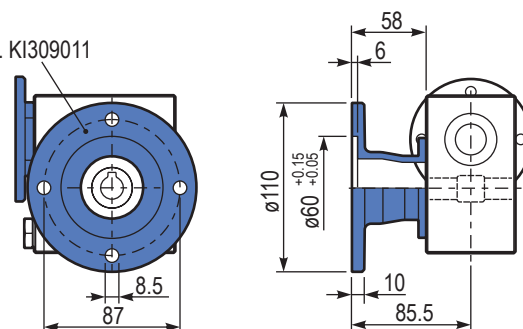
Modular base
Base modulare

PI30FL...

Output flange
Flangia uscita



kit cod. KI309011



RI30UN...

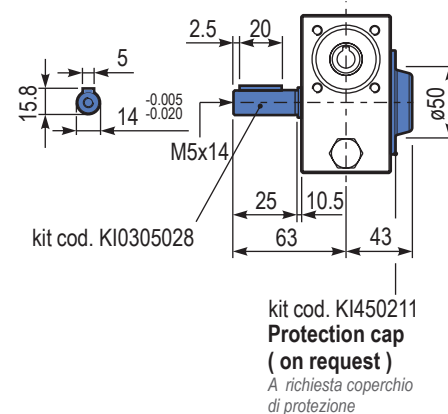
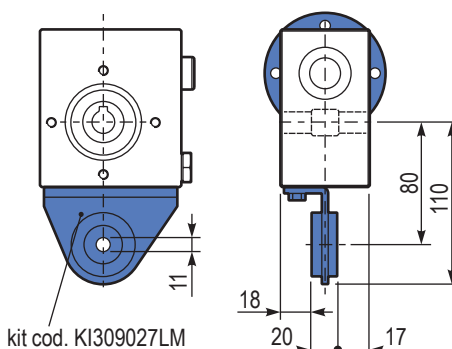
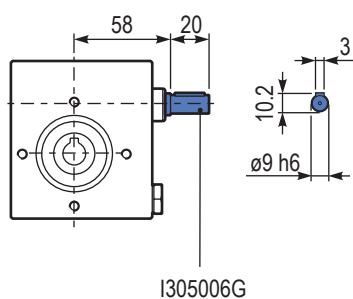
Input shaft
Albero in entrata

PI30BR...

Reaction arm
Braccio di reazione

PI30.....S...

Single Shaft
Albero lento semplice



I45

41
Nm

VFI series

Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Input speed (n_1) = 1400 min⁻¹

Output speed	Ratio	Motor power	Output torque	Service factor	Nominal power	Nominal torque	B5 motor flanges		B14 motor flanges		Dynamic efficiency	Tooth module	Ratios code
n_2 [min ⁻¹]	i	P_{1M} [kW]	M_{2M} [Nm]	f.s	P_{1R} [kW]	M_{2R} [Nm]	-	-	-P	-Q	RD	[mm]	
200	7	0.37	14	2.2	0.80	30			B-C		80	2.2	01
140	10	0.37	20	1.5	0.57	30			B-C		79	2.2	02
100	14	0.37	27	1.1	0.41	30			B-C		77	2.4	03
67	21	0.37	36	1.2	0.43	41			B-C		67	1.6	04
50	28	0.25	31	1.3	0.33	41			B-C		65	2.5	05
38	37	0.25	40	1.0	0.26	41			B-C		63	1.8	06
30	46	0.25	46	0.9	0.22	41			B-C		59	1.5	07
23	60	0.18	41	1.0	0.18	41			B-C		56	1.2	08
20	70	0.12	31	1.0	0.12	30			B-C		54	1.0	09
13.7	102	0.12	41	0.7	0.09	29			B-C		49	0.72	10

Motor flanges available
Flange motore disponibili



B) Supplied with reduction bushing
Fornito con bussola di riduzione

B) Available on request without reduction bushing
Disponibile a richiesta senza bussola di riduzione



C) Motor flange holes position
Posizione fori flangia motore

Lubrication

Lubrificazione

Unit I45 is supplied with synthetic oil to assure long life lubrication.
Food grade oil is available on request.

See Table 1 for lubrication and recommended quantity.

See Table 2 for possible radial and axial loads on the gearbox.

Il riduttore tipo I45 viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare.

Vedi Tabella 1 per oli e quantità consigliati.

Vedi Tabella 2 per i carichi radiali e assiali applicabili al riduttore.

Agip

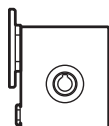
Telium VSF 320

Shell

Omala S4 WE 320

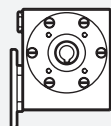
B3

Standard
0.15 LT



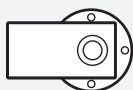
B8

On request
0.15 LT



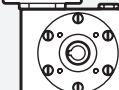
B6

On request
0.15 LT



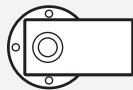
V5

On request
0.15 LT



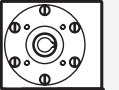
B7

On request
0.20 LT



V6

On request
0.15 LT



For more details on lubrication and plugs check our website.

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web.

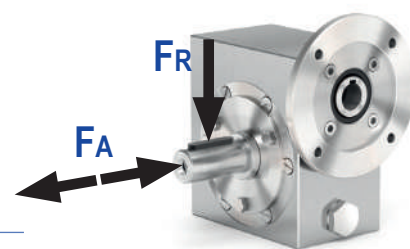
Radial and axial loads

Carichi radiali e assiali

Output shaft

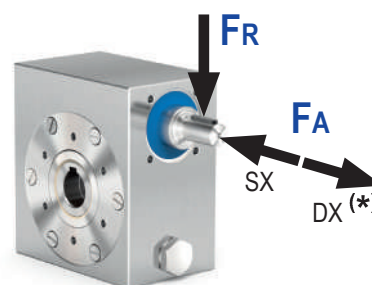
Albero di uscita

n_2 [min ⁻¹]	F_A [N]	F_R [N]
200	180	900
150	200	1000
100	220	1100
75	240	1200
50	260	1400
25	300	1800
15	400	2000



Input shaft

Albero in entrata



n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	42	210

* Strong axial loads in the DX direction are not allowed.

* Non sono consentiti forti carichi assiali con direzione DX

Tab. 1

Tab. 2

41
Nm

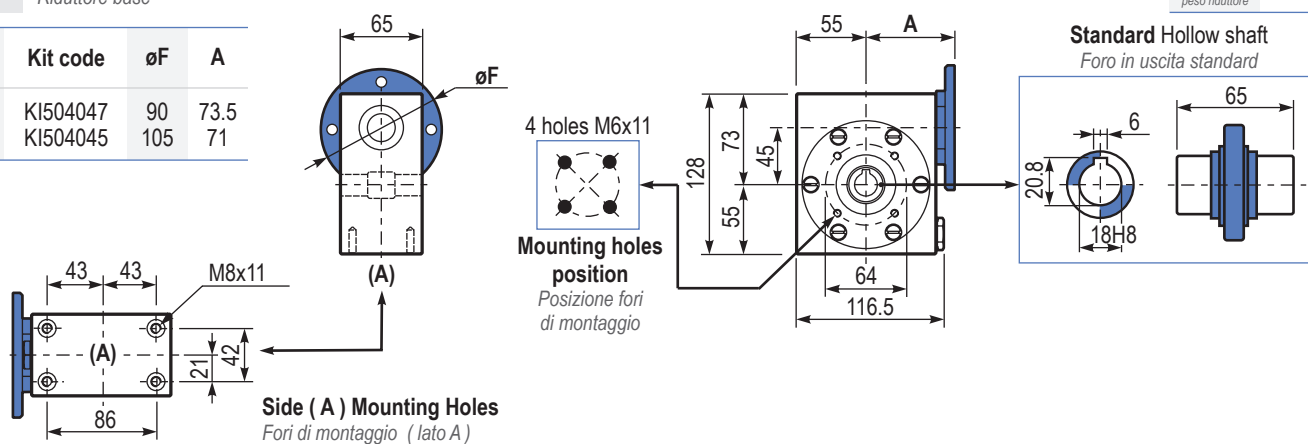
145

PI45UN...

Basic gearbox
Riduttore base

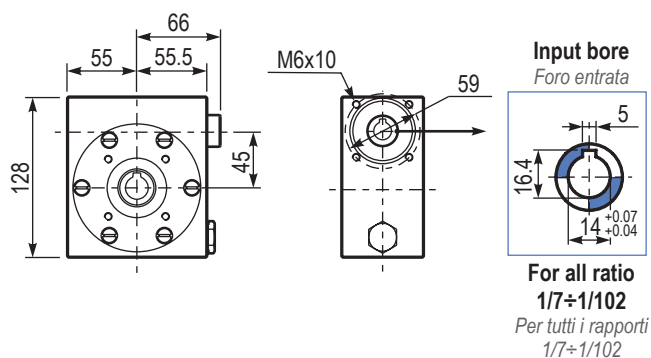
Gearbox weight
peso riduttore **5.0 kg**

M. flanges	Kit code	øF	A
63B14	KI504047	90	73.5
71B14	KI504045	105	71



BI45UN...

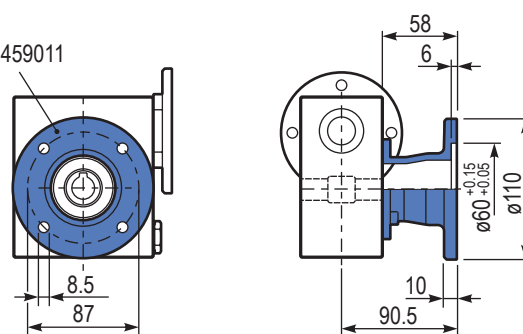
Modular base
Base modulare



PI45FL...

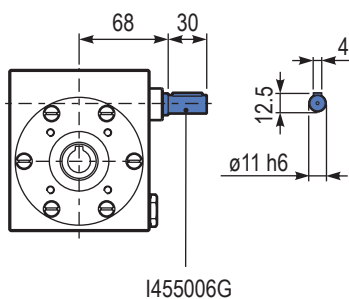
Output flange
Flangia uscita

kit cod. KI459011



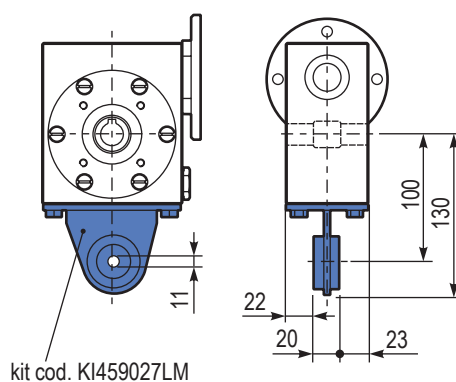
RI45UN...

Input shaft
Albero in entrata



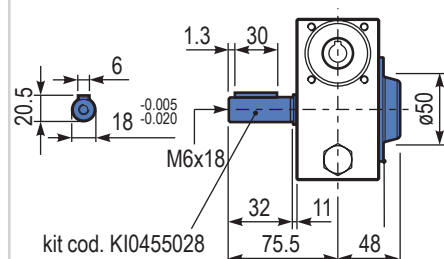
PI45BR...

Reaction arm
Braccio di reazione



PI45.....S...

Single Shaft
Albero lento semplice



kit cod. KI450211
Protection cap
(on request)
A richiesta coperchio di protezione

I50

72 Nm

VFI series Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Input speed (n_1) = 1400 min⁻¹

Output speed	Ratio	Motor power	Output torque	Service factor	Nominal power	Nominal torque	B5 motor flanges		B14 motor flanges			Dynamic efficiency	Tooth module	Ratios code
n_2 [min ⁻¹]	i	P_{1M} [kW]	M_{2M} [Nm]	f.s	P_{1R} [kW]	M_{2R} [Nm]	-	-	-P	-Q	-R	RD	[mm]	
200	7	0.75	29	1.9	1.5	57			B-C	B		82	2.5	01
140	10	0.75	41	1.5	1.1	62			B-C	B		80	2.4	02
100	14	0.75	57	1.2	0.90	68			B-C	B		79	2.6	03
78	18	0.55	51	1.2	0.67	62			B-C	B		75	2.0	04
54	26	0.55	67	1.0	0.54	66			B-C	B		69	2.7	05
47	30	0.55	79	0.9	0.50	72			B-C	B		70	2.5	12
39	36	0.37	63	1.2	0.43	72			B-C			69	2.1	06
33	43	0.37	72	1.0	0.35	68			B-C			66	1.8	07
28	50	0.25	53	1.2	0.31	66			B-C			62	1.5	13
23	60	0.25	59	1.0	0.26	62			B-C			58	1.3	08
21	68	0.25	66	0.9	0.22	58			B-C			57	1.2	09
17.5	80	0.18	53	1.1	0.19	57			B-C			54	1.0	10
14	100	0.12	41	1.3	0.15	51			B-C			50	0.8	11

Motor flanges available
Flange motore disponibili



B) Supplied with reduction bushing
Fornito con bussola di riduzione



B) Available on request without reduction bushing
Disponibile a richiesta senza bussola di riduzione



C) Motor flange holes position
Posizione fori flangia motore

Lubrication Lubrificazione

Unit I50 is supplied with synthetic oil to assure long life lubrication.
Food grade oil is available on request.

See Table 1 for lubrication and recommended quantity.

See Table 2 for possible radial and axial loads on the gearbox.

Il riduttore tipo I50 viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare.

Vedi Tabella 1 per oli e quantità consigliati.

Vedi Tabella 2 per i carichi radiali e assiali applicabili al riduttore.

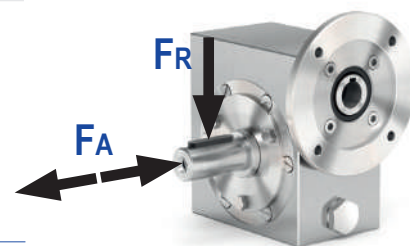
Agip
Telium VSF 320

Shell
Omala S4 WE 320

Radial and axial loads Carichi radiali e assiali

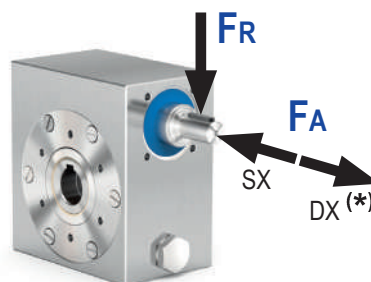
Output shaft Albero di uscita

n_2 [min ⁻¹]	F_A [N]	F_R [N]
200	240	1200
150	280	1400
100	300	1500
75	340	1700
50	380	1900
25	480	2500
15	560	2800



Input shaft Albero in entrata

n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	76	380



For more details on lubrication and plugs check our website.
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web.

* Strong axial loads in the DX direction are not allowed.
* Non sono consentiti forti carichi assiali con direzione DX

Tab. 1

Tab. 2

72
Nm

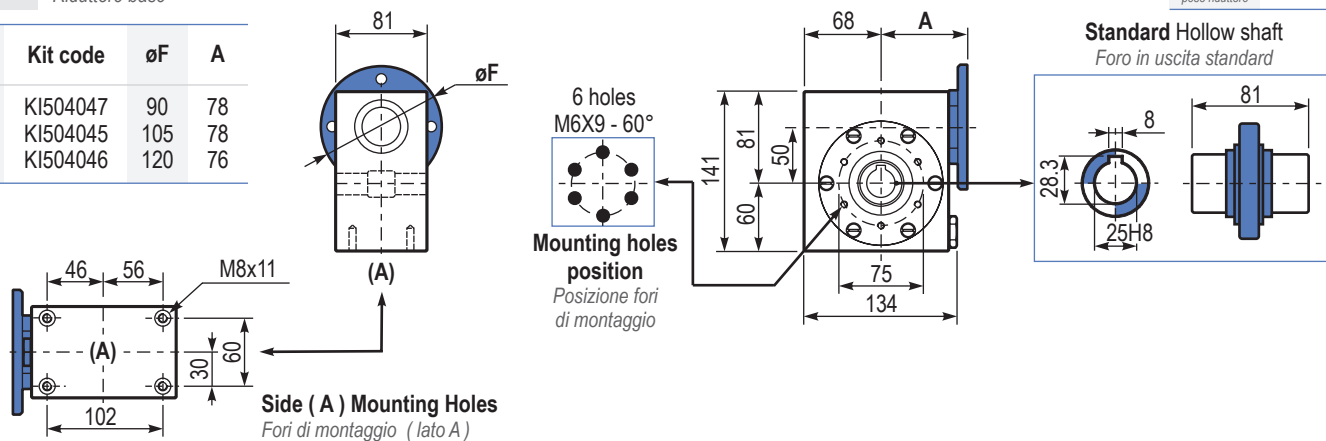
150

PI50UN...

Basic gearbox
Riduttore base

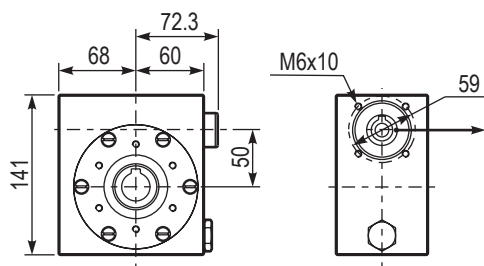
Gearbox weight
peso riduttore **7.3 kg**

M. flanges	Kit code	øF	A
63B14	KI504047	90	78
71B14	KI504045	105	78
80B14	KI504046	120	76

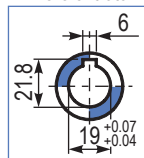


BI50UN...

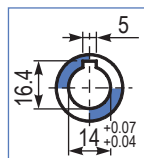
Modular base
Base modulare



Input bore
Foro entrata



From 1/7 to 1/30
Dal 1/7 al 1/30

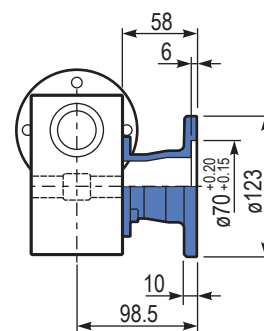
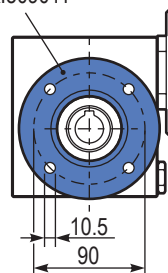


From 1/36 to 1/100
Dal 1/36 al 1/100

PI50FL...

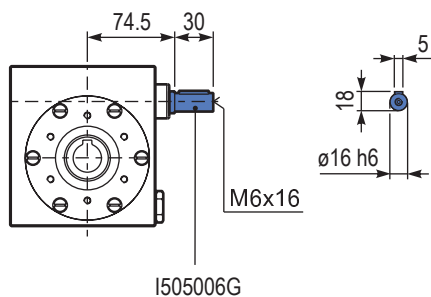
Output flange
Flangia uscita

kit cod. KI509011



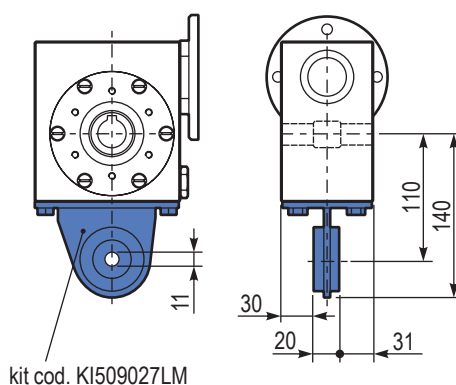
RI50UN...

Input shaft
Albero in entrata



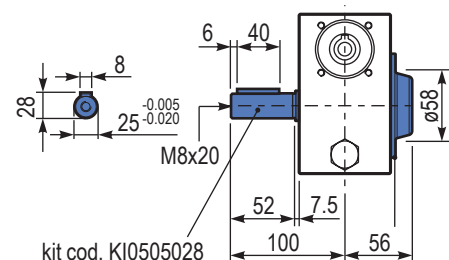
PI50BR...

Reaction arm
Braccio di reazione



PI50.....S...

Single Shaft
Albero lento semplice



kit cod. KI500211
Protection cap
(on request)
A richiesta coperchio di protezione

VFI series

Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Input speed (n_1) = 1400 min⁻¹

Output speed	Ratio	Motor power	Output torque	Service factor	Nominal power	Nominal torque	B5 motor flanges		B14 motor flanges			Dynamic efficiency	Tooth module	Ratios code
n_2 [min ⁻¹]	i	P_{1M} [kW]	M_{2M} [Nm]	f.s	P_{1R} [kW]	M_{2R} [Nm]	-	-	-Q	-R	-T	RD	[mm]	
200	7	1.8	71	1.8	3.2	125			B-C	B-C		83	3.1	01
140	10	1.8	99	1.4	2.4	134			B-C	B-C		81	3.1	02
93	15	1.5	121	1.1	1.7	138			B-C	B-C		79	3.1	03
74	19	1.1	111	1.2	1.4	138			B-C	B-C		78	2.6	04
58	24	1.1	135	1.0	1.2	142			B-C	B-C		75	2.0	05
47	30	1.1	167	0.9	0.96	146			B-C	B-C		74	3.2	06
39	36	0.75	125	1.2	0.88	147			B-C	B-C		68	2.7	07
35	40	0.75	135	1.0	0.78	140			B-C	B-C		66	2.5	13
31	45	0.55	111	1.2	0.67	135			B-C	C		66	2.1	08
23	60	0.55	140	0.9	0.51	130			B-C	C		62	1.6	12
21	67	0.55	151	0.8	0.45	124			B-C	C		60	1.5	09
17.5	80	0.37	115	1.0	0.38	119			B-C	C		57	1.3	10
14.9	94	0.37	123	1.0	0.36	119			B-C	C		52	1.1	11

Motor flanges available
Flange motore disponibili



B) Supplied with reduction bushing
Fornito con bussola di riduzione

B) Available on request without reduction bushing
Disponibile a richiesta senza bussola di riduzione



C) Motor flange holes position
Posizione fori flangia motore

Lubrication

Lubrificazione

Unit I63 is supplied with synthetic oil to assure long life lubrication.
Food grade oil is available on request.

See Table 1 for lubrication and recommended quantity.

See Table 2 for possible radial and axial loads on the gearbox.

Il riduttore tipo I63 viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare.

Vedi Tabella 1 per oli e quantità consigliati.

Vedi Tabella 2 per i carichi radiali e assiali applicabili al riduttore.

Agip

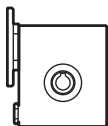
Telium VSF 320

Shell

Omala S4 WE 320

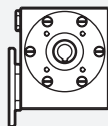
B3

Standard
0.60 LT



B8

On request
0.60 LT



B6

On request
0.60 LT



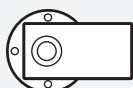
V5

On request
0.60 LT



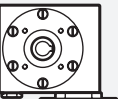
B7

On request
0.82 LT



V6

On request
0.60 LT



For more details on lubrication and plugs check our website.
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web.

Tab. 1

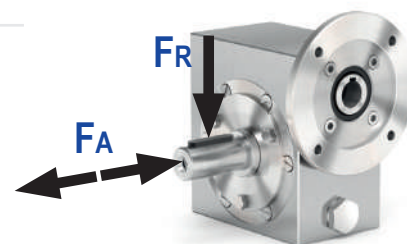
Radial and axial loads

Carichi radiali e assiali

Output shaft

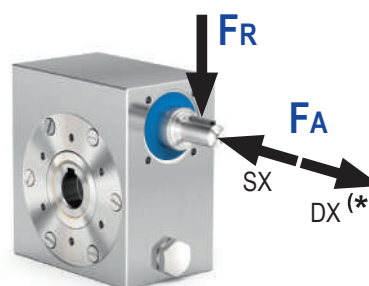
Albero di uscita

n_2 [min ⁻¹]	F_A [N]	F_R [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000



Input shaft

Albero in entrata



n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	90	450

* Strong axial loads in the DX direction are not allowed.

* Non sono consentiti forti carichi assiali con direzione DX

Tab. 2

147
Nm

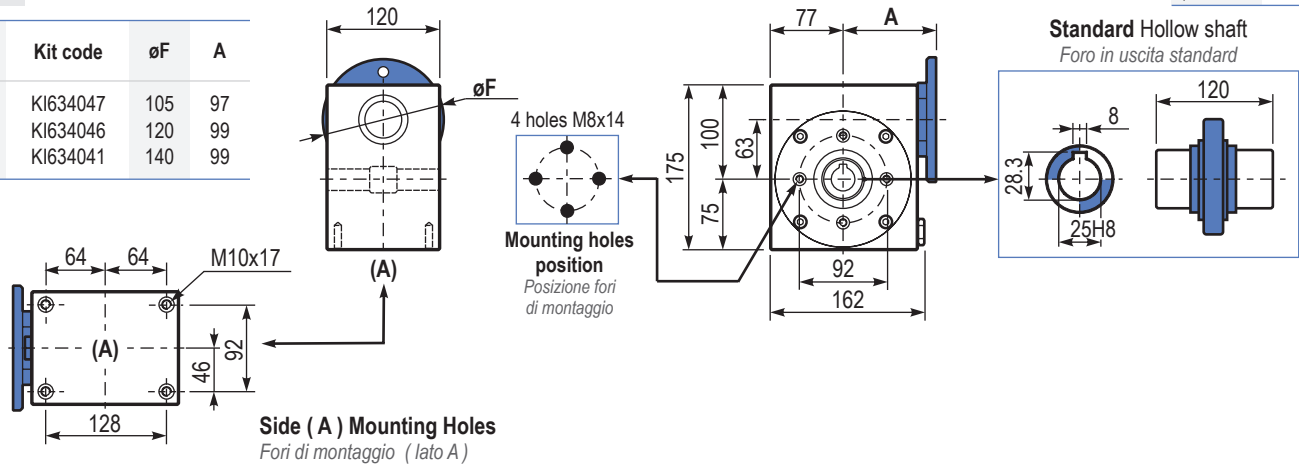
163

PI63UN...

Basic gearbox
Riduttore base

Gearbox weight
peso riduttore **14.6 kg**

M. flanges	Kit code	øF	A
71B14	KI634047	105	97
80B14	KI634046	120	99
90B14	KI634041	140	99



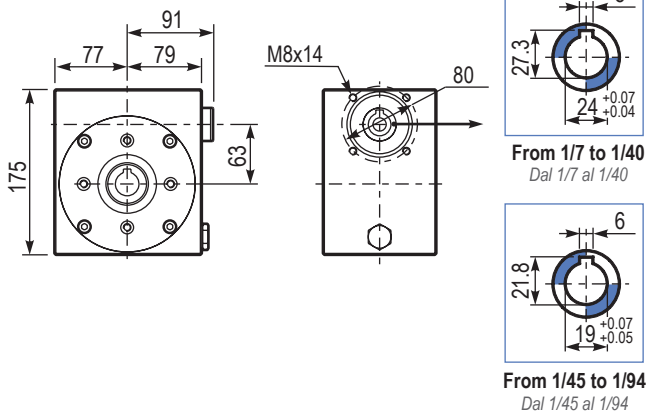
B163UN...

Modular base
Base modulare

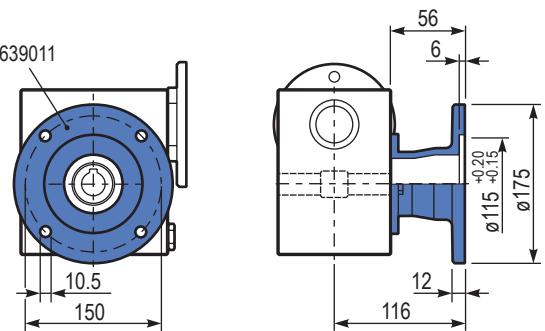
Input bore
Foro entrata

PI63FL...

Output flange
Flangia uscita



kit cod. KI639011



R163UN...

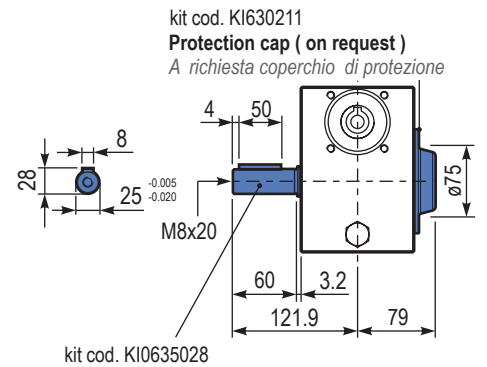
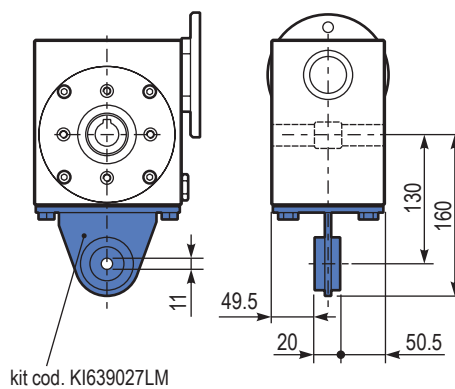
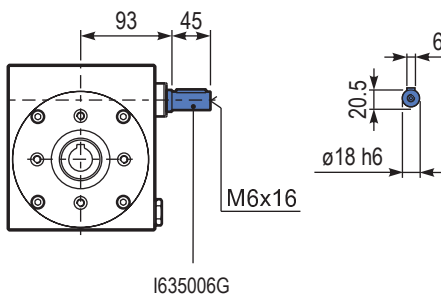
Input shaft
Albero in entrata

PI63BR...

Reaction arm
Braccio di reazione

PI63.....S...

Single Shaft
Albero lento semplice



I85

347
Nm

VFI series

Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Input speed (n_1) = 1400 min⁻¹

Output speed	Ratio	Motor power	Output torque	Service factor	Nominal power	Nominal torque	B5 motor flanges			B14 motor flanges			Dynamic efficiency	Tooth module	Ratios code
n_2 [min ⁻¹]	i	P_{1M} [kW]	M_{2M} [Nm]	f.s	P_{1R} [kW]	M_{2R} [Nm]	-	-	-	-R	-T	-U	RD	[mm]	
200	7	4.0	168	1.5	6.1	257	-	-	-	B	B		88	4.23	01
140	10	4.0	218	1.3	5.2	284	-	-	-	B	B		80	4.2	02
100	14	3.0	223	1.4	4.1	305	-	-	-	B	B		78	4.5	03
70	20	2.2	237	1.2	2.7	294	-	-	-	B	B		79	3.4	04
64	22	2.2	258	1.1	2.5	294	-	-	-	B	B		78	3.1	05
50	28	2.2	315	1.1	2.4	347	-	-	-	B	B		75	4.7	06
37	38	1.5	276	1.2	1.8	336	-	-	-	B			71	3.5	07
30	46	1.5	320	1.0	1.5	326	-	-	-	B			68	3.1	08
27	52	1.1	258	1.1	1.2	289	-	-	-	B			66	2.7	09
21	67	1.1	327	0.9	0.97	289	-	-	-	B			65	2.1	10
18.9	74	0.75	220	1.2	0.91	268	-	-	-	B			58	1.9	11
14.6	96	0.55	191	1.3	0.70	242	-	-	-	B			53	1.5	12

Motor flanges available
Flange motore disponibili



B) Supplied with reduction bushing
Fornito con bussola di riduzione



B) Available on request without reduction bushing
Disponibile a richiesta senza bussola di riduzione



C) Motor flange holes position
Posizione fori flangia motore

Lubrication

Lubrificazione

Unit I85 is supplied with synthetic oil to assure long life lubrication.
Food grade oil is available on request.

See Table 1 for lubrication and recommended quantity.

See Table 2 for possible radial and axial loads on the gearbox.

Il riduttore tipo I85 viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare.

Vedi Tabella 1 per oli e quantità consigliati.

Vedi Tabella 2 per i carichi radiali e assiali applicabili al riduttore.

Agip

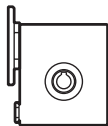
Telium VSF 320

Shell

Omala S4 WE 320

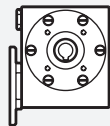
B3

Standard
1.40 LT



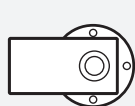
B8

On request
1.40 LT



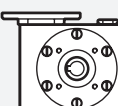
B6

On request
1.40 LT



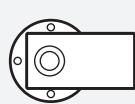
V5

On request
1.40 LT



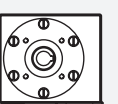
B7

On request
1.70 LT



V6

On request
1.40 LT



For more details on lubrication and plugs check our website.

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web.

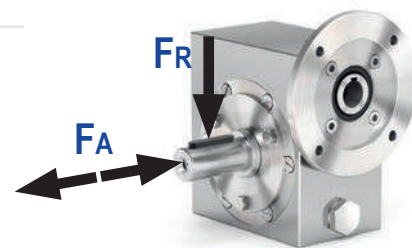
Radial and axial loads

Carichi radiali e assiali

Output shaft

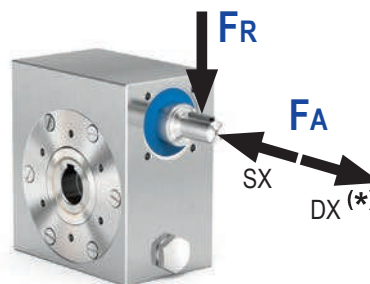
Albero di uscita

n_2 [min ⁻¹]	F_A [N]	F_R [N]
200	500	2500
150	580	2900
100	600	3000
75	700	3500
50	800	4000
25	1000	5000
15	1160	5800



Input shaft

Albero in entrata



n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	130	650

* Strong axial loads in the DX direction are not allowed.

* Non sono consentiti forti carichi assiali con direzione DX

347
Nm

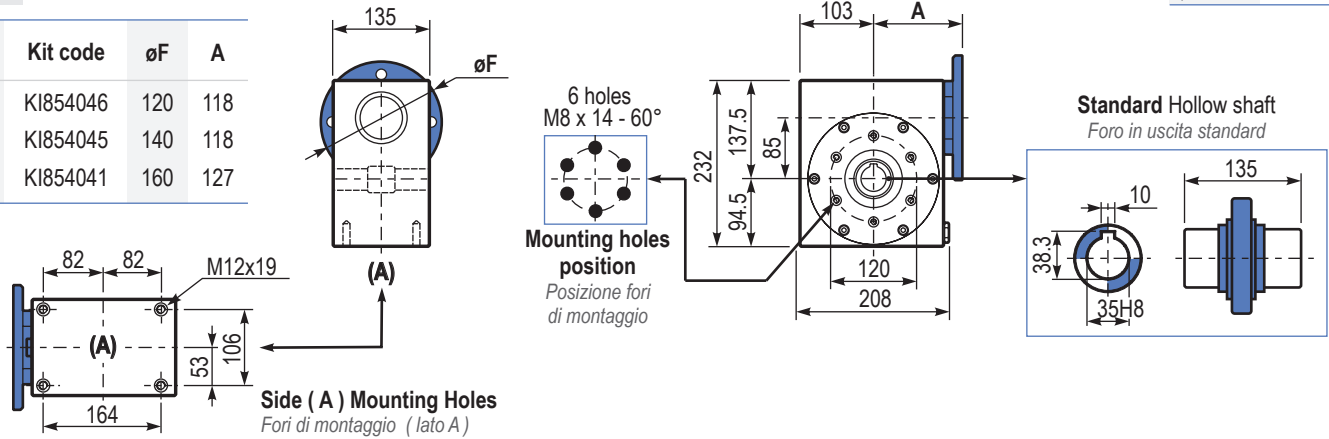
185

PI85UN...

Basic gearbox
Riduttore base

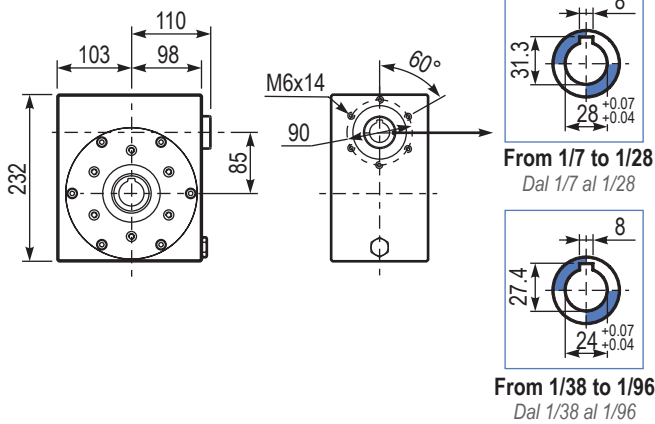
Gearbox
weight
peso riduttore **23.3 kg**

M. flanges	Kit code	øF	A
80B14	KI854046	120	118
90B14	KI854045	140	118
100-112B14	KI854041	160	127



BI85UN...

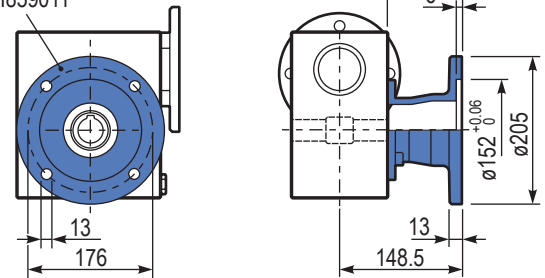
Modular base
Base modulare



PI85FL...

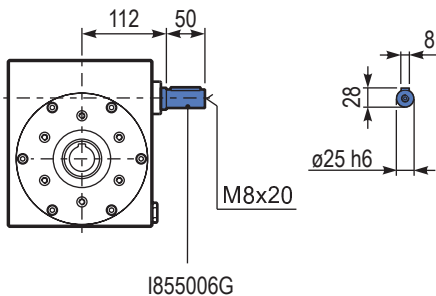
Output flange
Flangia uscita

kit cod. KI859011



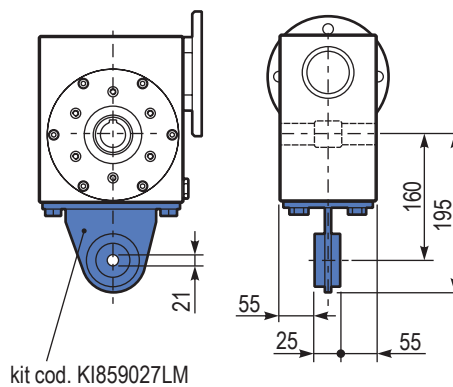
RI85UN...

Input shaft
Albero in entrata



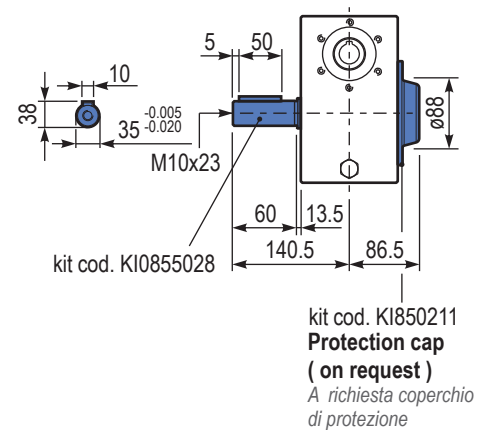
PI85BR...

Reaction arm
Braccio di reazione



PI85.....S...

Single Shaft
Albero lento semplice



I11

651
Nm

VFI series

Full stainless steel worm gearboxes

Riduttori a vite senza fine completamente in acciaio inox

Input speed (n_1) = 1400 min⁻¹

Output speed	Ratio	Motor power	Output torque	Service factor	Nominal power	Nominal torque	B5 motor flanges			B14 motor flanges			Dynamic efficiency	Tooth module	Ratios code
n_2 [min ⁻¹]	i	P_{1M} [kW]	M_{2M} [Nm]	f.s	P_{1R} [kW]	M_{2R} [Nm]	-	-	-	-R	-T	-U	RD	[mm]	
200	7	4.0	168	2.9	11.5	483	-	-	-	B	B		88	5.5	01
140	10	4.0	235	2.2	9.0	525	-	-	-	B	B		86	5.4	02
88	16	4.0	358	1.5	6.0	536	-	-	-	B	B		82	5.3	03
70	20	4.0	447	1.2	4.9	546	-	-	-	B	B		82	4.5	04
61	23	3.0	377	1.4	4.1	515	-	-	-	B	B		80	3.9	05
47	30	3.0	467	1.4	4.2	651	-	-	-	B	B		76	5.6	06
37	38	3.0	583	1.1	3.3	641	-	-	-	B	B		75	4.7	07
31	45	2.2	493	1.2	2.7	599	-	-	-	B	B		73	4.0	08
26	53	2.2	557	1.1	2.5	620	-	-	-	B	B		70	3.5	09
22	64	1.5	452	1.2	1.8	536	-	-	-	B			69	2.9	10
16.7	84	1.1	410	1.2	1.3	494	-	-	-	B			65	2.2	11
14.1	99	1.1	446	1.1	1.2	483	-	-	-	B			60	1.9	12

Motor flanges available
Flange motore disponibili



B) Supplied with reduction bushing
Fornito con bussola di riduzione

B) Available on request without reduction bushing
Disponibile a richiesta senza bussola di riduzione



C) Motor flange holes position
Posizione fori flangia motore

Lubrication

Lubrificazione

Unit I11 is supplied with synthetic oil to assure long life lubrication.
Food grade oil is available on request.

See Table 1 for lubrication and recommended quantity.

See Table 2 for possible radial and axial loads on the gearbox.

Il riduttore tipo I11 viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare.

Vedi Tabella 1 per oli e quantità consigliati.

Vedi Tabella 2 per i carichi radiali e assiali applicabili al riduttore.

Agip

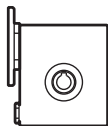
Tellium VSF 320

Shell

Omala S4 WE 320

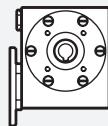
B3

Standard
3.50 LT



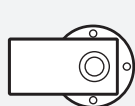
B8

On request
2.10 LT



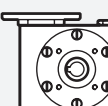
B6

On request
2.50 LT



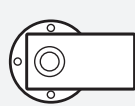
V5

On request
1.60 LT



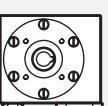
B7

On request
2.50 LT



V6

On request
1.60 LT



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Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web.

Tab. 1

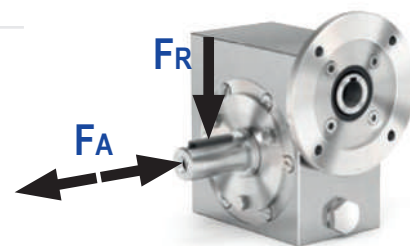
Radial and axial loads

Carichi radiali e assiali

Output shaft

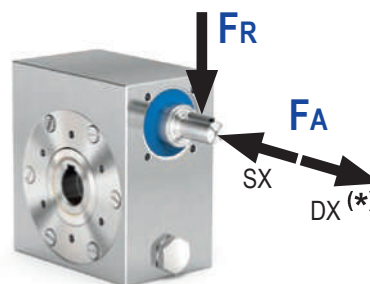
Albero di uscita

n_2 [min ⁻¹]	F_A [N]	F_R [N]
200	600	2900
150	700	3300
100	750	3600
75	800	4000
50	920	4600
25	1200	6000
15	1400	7000



Input shaft

Albero in entrata



n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	228	1140

* Strong axial loads in the DX direction are not allowed.

* Non sono consentiti forti carichi assiali con direzione DX

Tab. 2

651
Nm

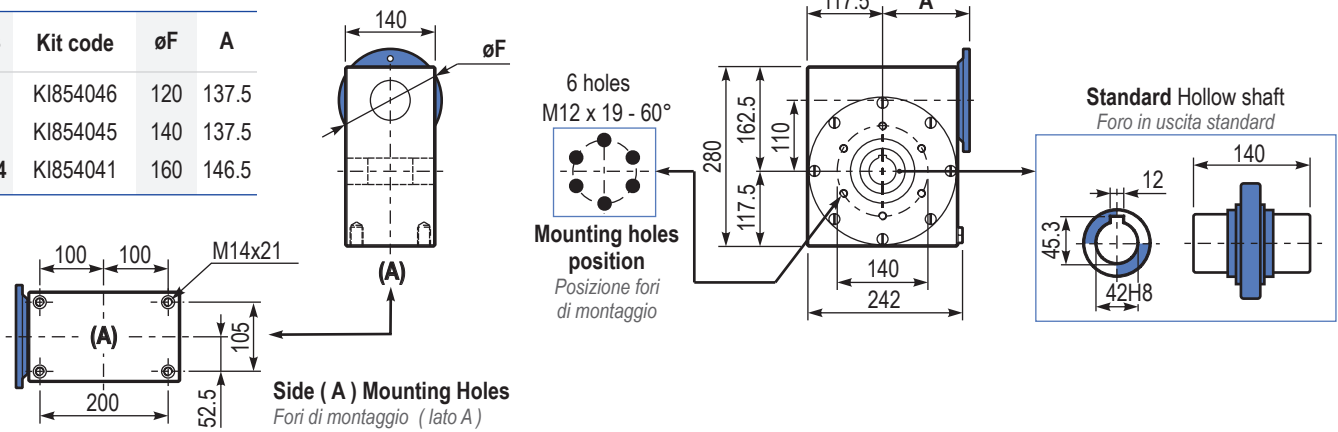
111

PI11UN...

Basic gearbox
Riduttore base

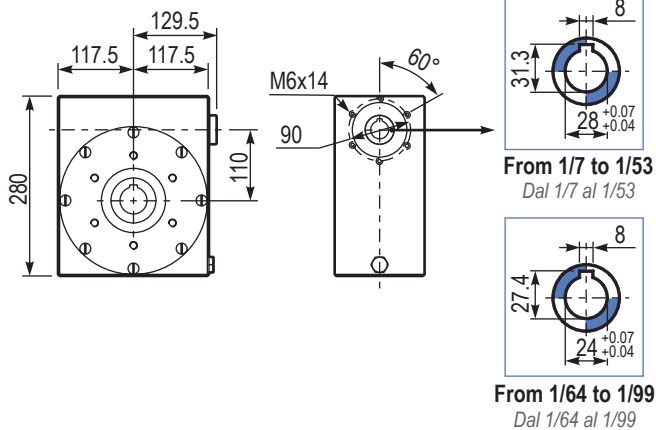
Gearbox weight
peso riduttore **38.5 kg**

M. flanges	Kit code	øF	A
80B14	KI854046	120	137.5
90B14	KI854045	140	137.5
100-112B14	KI854041	160	146.5



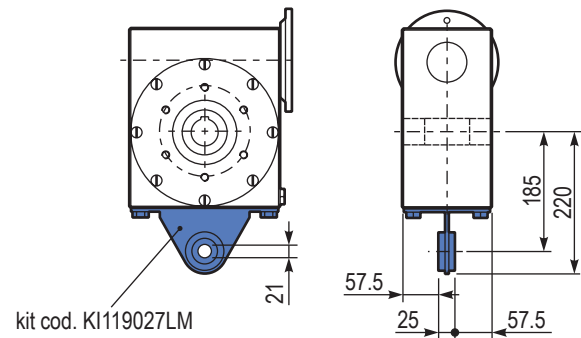
B111UN...

Modular base
Base modulare



PI11BR...

Reaction arm
Braccio di reazione



R111UN...

Input shaft
Albero in entrata

