

N VFN series Full stainless steel round worm gearboxes

Riduttori a vite senza fine tondo completamente in acciaio inox

Section **3**
Sezione 3

The best solution for the resistance to the corrosion. Suitable for all applications.

*La migliore soluzione per la resistenza alla corrosione.
Adatto a tutte le applicazioni.*

AISI 316L

IP66

CE

NSF

COMPONENT

















On req.
A rich.

IP69k

Ex
ATEX



How to order Codifica

P	N45	UNI	N	10	0	MB	I
Type <i>Tipo</i>	Size <i>Grandezza</i>	Mounting <i>Montaggio</i>	Position <i>Posizione</i>	Ratio <i>Rapporto</i>	Hub Output shaft <i>Mozzo corona Albero uscita</i>	Diameter <i>Diametro</i>	Input / output shaft material <i>Materiale albero in entrata e uscita</i>
P 	Worm gearboxes <i>Riduttori a vite senza fine</i>	UNI 	N 	See technical data table <i>Vedi tabelle dati tecnici</i>	0 Hollow <i>Mozzo</i> 	→ Standard N30 MA → ø14	I Stainless steel <i>Acciaio inox</i>
M 		FLL 			S Solid output shaft <i>Albero in uscita</i> 	N45 MB → ø18 MC → ø19 MD → ø20	The quill input hollow bore is always in carbon steel <i>Il foro cavo in entrata è sempre in acciaio</i>
B 	N30 N45 N50 N63 N85	BRI Stainless steel <i>Acciaio inox</i> 	Select L or R position for output flange <i>Selezionare la posizione L o R per la flangia in uscita</i>			N50 ME → ø24 MF → ø25	
R 		PAI Stainless steel <i>Acciaio inox</i> 	L Left <i>Sinistra</i> 			N63 MF → ø25 MG → ø28 MH → ø30	
		PVI Stainless steel <i>Acciaio inox</i> 	R Right <i>Destra</i> 			N85 MK → ø35	Output male shaft is available only for standard bore <i>Albero maschio in uscita è disponibile solo per fori standard</i>

N		C	-R	B3	ST	For M type specify terminal box position
Protection cap <i>Coperchio di protezione</i>			Motor size <i>Grandezza motore</i>	Mounting position <i>Posizione di montaggio</i>	Input bore <i>Foro entrata</i>	<i>Per tipo M specificare posizione morsettiera</i>
Left <i>Sinistra</i>	Right <i>Destra</i>	Motor flanges <i>Flange motore</i>		B3	ST Standard bore* <i>Foro standard*</i>	A
					Input bore without reduction bushing	
N Without protection cap <i>Senza coperchietto di protezione</i>	N Without protection cap <i>Senza coperchietto di protezione</i>	IEC B14		B8 	-O → 9mm -P → 11mm -Q → 14mm -R → 19mm -T → 24mm -U → 28mm -V → 38mm	B
		Brushless		B6 	Coupling	C
C Closed <i>Chiuso</i>	C Closed <i>Chiuso</i>			B7 	Standard (IEC)	D
		BB → 50/70-M5 BC → 60/75-M5 BD → 70/90-M6 BE → 80/100-M6 BF → 95/115-M8 BG → 110/145-M8 BH → 130/165-M8		V5 	-A → 9mm -B → 11mm -C → 14mm -D → 19mm -E → 24mm -F → 28mm	
		Brushless-Tech catalogue is available in our website <i>Catalogo Brushless-Tech è disponibile nel nostro sito web</i>		V6 	Brushless*	
		Without flange <i>Senza flangia</i>			Ready for input coupling <i>Predisposto per giunto</i>	
		-M → Metric			-0 Type B <i>Tipo B</i> 	
		Type R <i>Tipo R</i>			* With reduction bushing where applicable <i>* Con bussola di riduzione dove prevista</i>	
		-0 → Metric				

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]	Ratio code
							-	-	-O 56	-P 63			
280	5	0.18	5	3.3	0.60	17			B-C		82	1.26	09
200	7	0.18	7	2.4	0.44	17			B-C		80	1.44	01
140	10	0.18	10	1.8	0.32	17			B-C		78	1.44	02
93	15	0.18	13	1.4	0.25	19			B-C		73	1.44	03
70	20	0.18	17	1.1	0.20	19			B-C		70	1.09	04
47	30	0.12	15	1.4	0.17	21			B-C		62	1.44	05
35	40	0.12	19	1.1	0.13	20			B-C		57	1.09	06
23	61	0.09	19	1.1	0.10	20			B-C		50	0.72	07
17.5	80	0.06	16	1.0	0.06	16			B-C		48	0.56	08
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 N30 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 N30 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: 0.04 L	Shell Omala S4 WE 320	Eni Telium VSF 320
Quantità olio per tutte le posizioni: 0.04 L		

Tab. 1

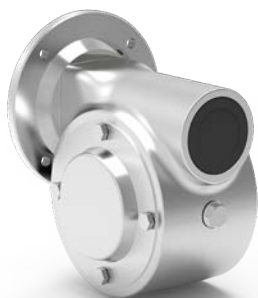
Suggested

Suggerito

Stainless steel protection cap (on request).

Coperchio di protezione in acciaio inox a richiesta.

Kit cod. KN300209



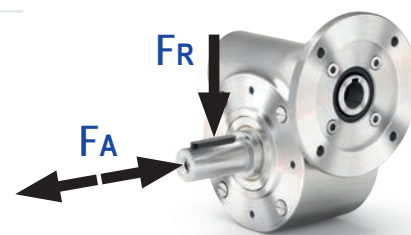
Radial and axial loads

Carichi radiali e assiali

Output shaft

Albero di uscita

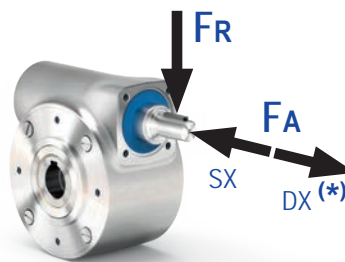
n_2 [min ⁻¹]	F_A [N]	F_R [N]
200	120	600
150	140	700
100	160	800
75	180	900
50	200	1000
25	250	1250
15	280	1400



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.

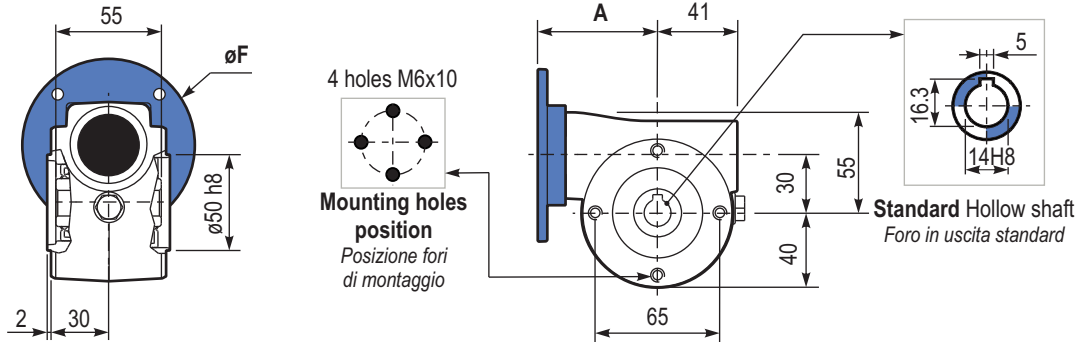
* Non sono consentiti forti carichi assiali con direzione DX

Tab. 2

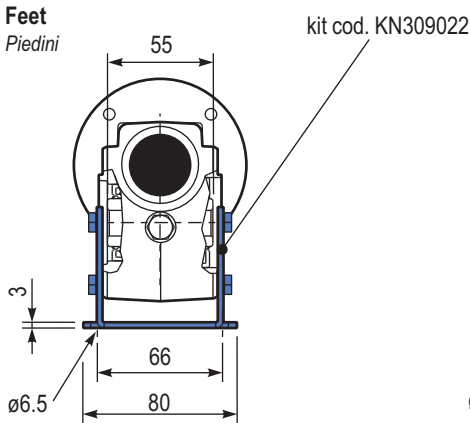
PN30UNI.. Basic gearbox
Riduttore base

Gearbox weight
Peso riduttore **2.2 kg**

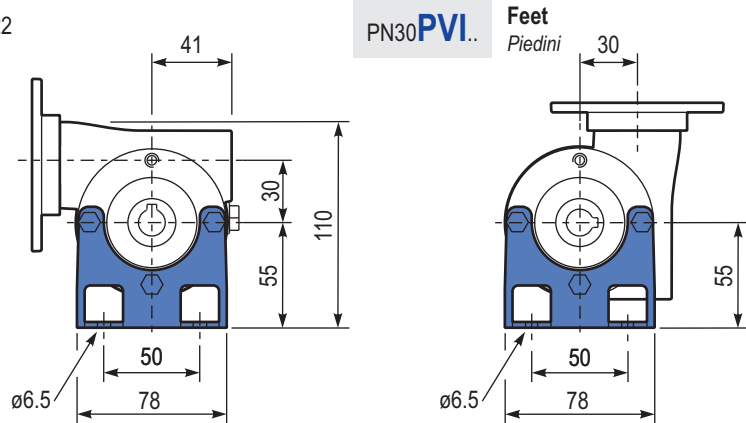
M. flanges	Kit code	øF	A
56B14	KI304046	80	61.5
63B14	KI304045	90	62.5



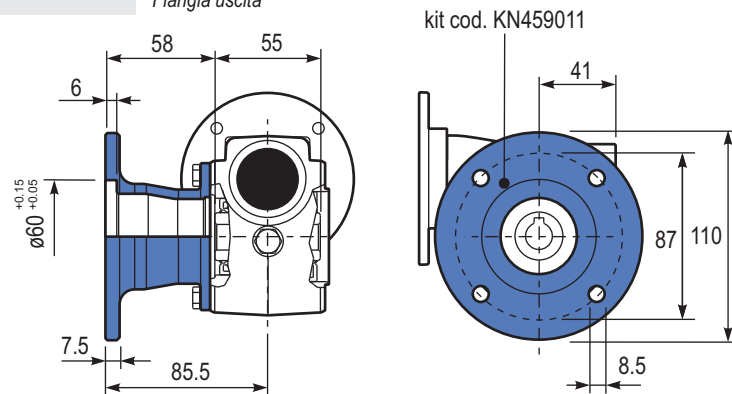
PN30PAI.. Feet
Piedini



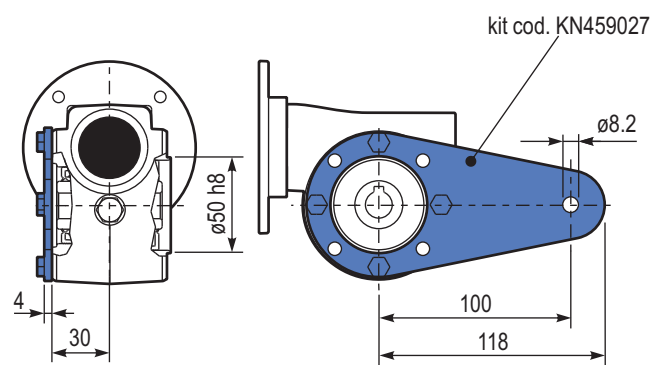
PN30PVI.. Feet
Piedini



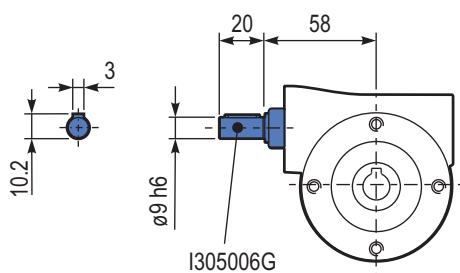
PN30FLL.. Output flange
Flangia uscita



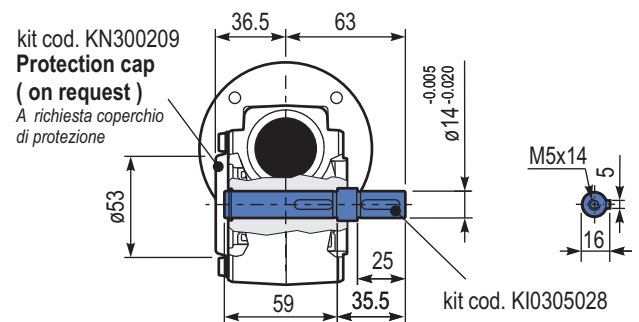
PN30BRI.. Reaction arm
Braccio di reazione



RN30UNI.. Input shaft
Albero in entrata



PN30..SMA Single output shaft
Albero semplice in uscita



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]	Ratio code
							-	-	-P 63	-Q 71			
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 N45 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 N45 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:
0.13 L

Quantità olio per tutte le posizioni: 0.13 L

Shell
Omala S4 WE 320

Eni
Telium VSF 320

Tab. 1

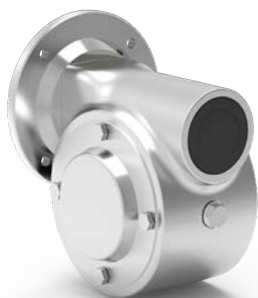
Suggested

Suggerito

Stainless steel protection cap (on request).

Coperchio di protezione in acciaio inox a richiesta.

Kit cod. KN300209



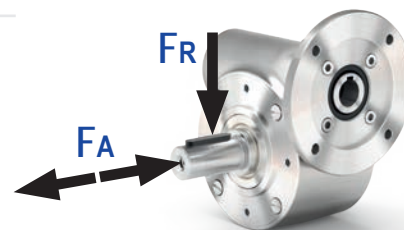
Radial and axial loads

Carichi radiali e assiali

Output shaft

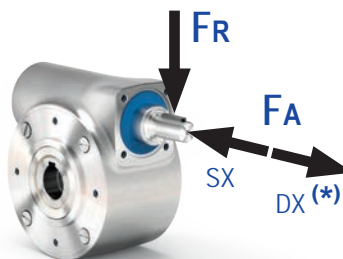
Albero di uscita

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

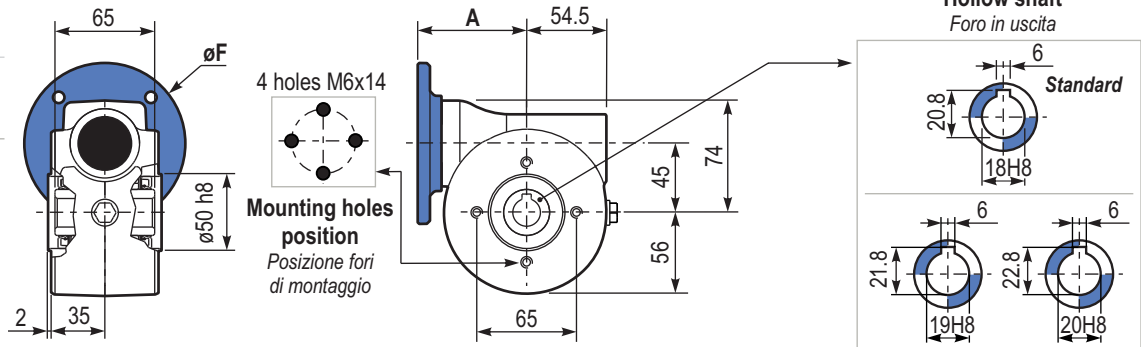
* Strong axial loads in the DX direction are not allowed.

* Non sono consentiti forti carichi assiali con direzione DX

Tab. 2

PN45UNI.. Basic gearbox
Riduttore base

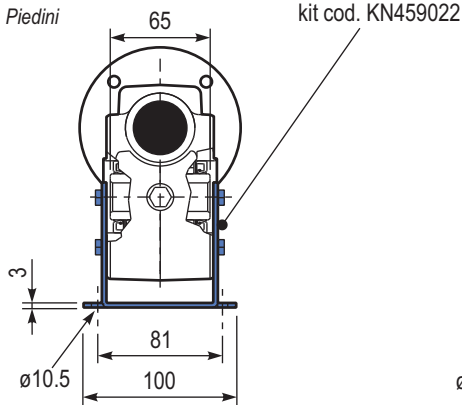
M. flanges	Kit code	øF	A
63B14	KI504047	90	73.5
71B14	KI504045	105	71



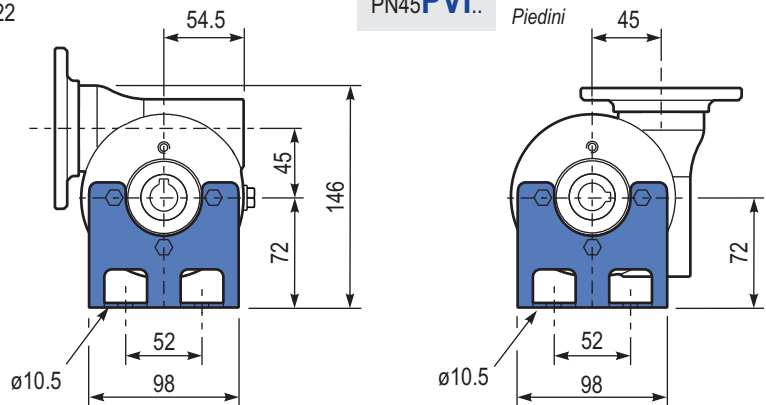
Gearbox weight
Peso riduttore **4.1 kg**

Hollow shaft
Foro in uscita

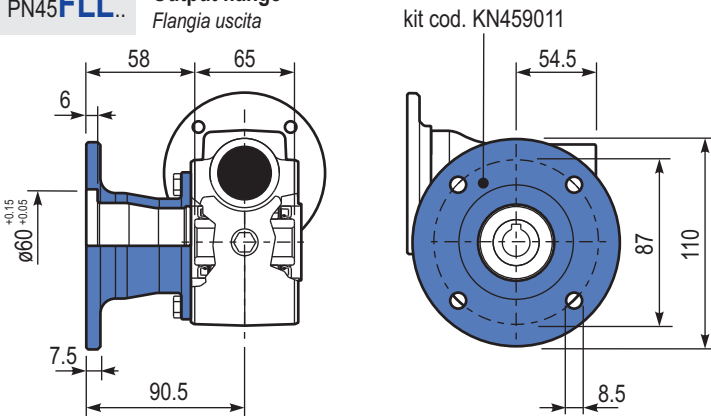
PN45PAI.. Feet
Piedini



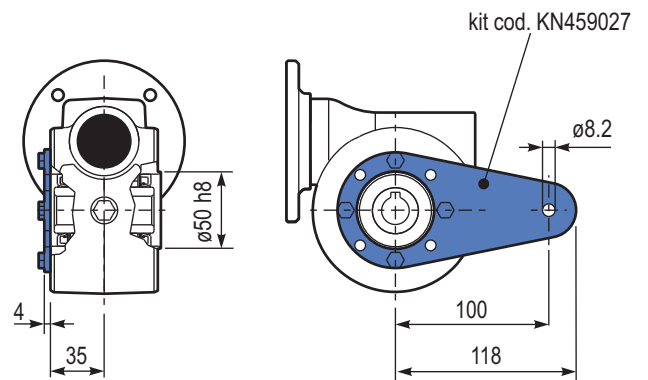
PN45PVI.. Feet
Piedini



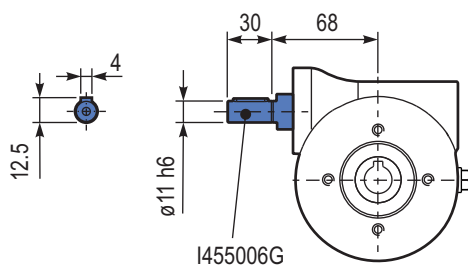
PN45FLL.. Output flange
Flangia uscita



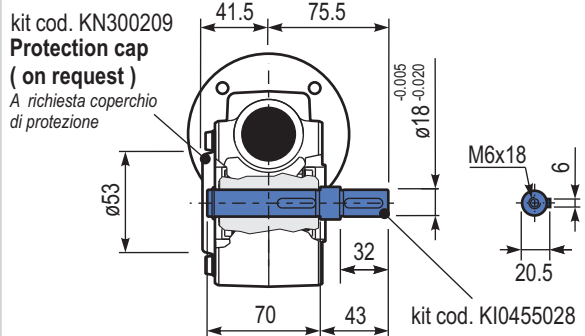
PN45BRI.. Reaction arm
Braccio di reazione



RN45UNI.. Input shaft
Albero in entrata



PN45..SMB Single output shaft
Albero semplice in uscita



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]	Ratio code
							-	-	-	-P 63	-Q 71	-R 80			
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 N50 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 N50 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:
0.18 L

Quantità olio per tutte le posizioni: 0.18 L

Shell
Omala S4 WE 320

Eni
Teliium VSF 320

Tab. 1

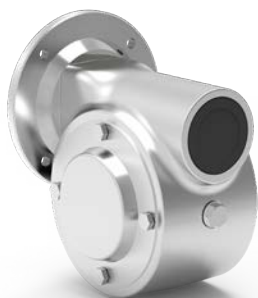
Suggested

Suggerito

Stainless steel protection cap (on request).

Coperchio di protezione in acciaio inox a richiesta.

Kit cod. KN500209



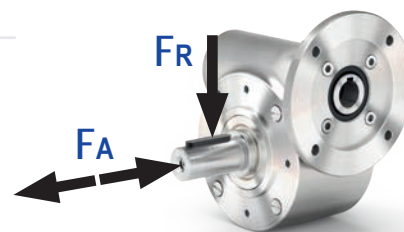
Radial and axial loads

Carichi radiali e assiali

Output shaft

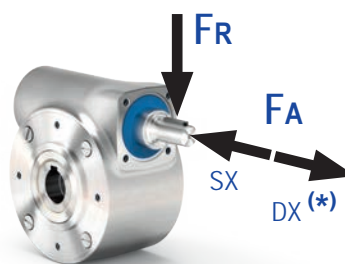
Albero di uscita

n_2 [min ⁻¹]	FA [N]	FR [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]	FA [N]	FR [N]
1400	76	380

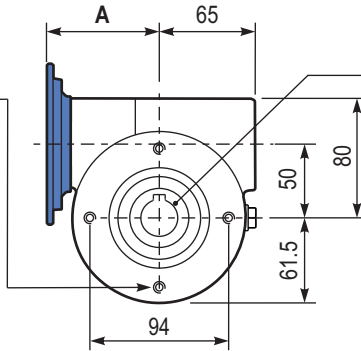
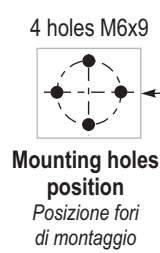
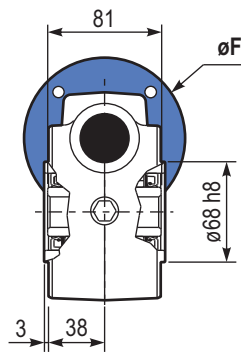
* Strong axial loads in the DX direction are not allowed.

* Non sono consentiti forti carichi assiali con direzione DX

Tab. 2

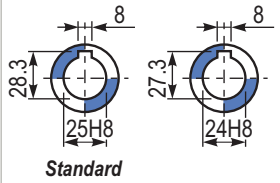
PN50UNI.. Basic gearbox
Riduttore base

M. flanges	Kit code	øF	A
63B14	KI504047	90	78
71B14	KI504045	105	75.5
80B14	KI504046	120	76



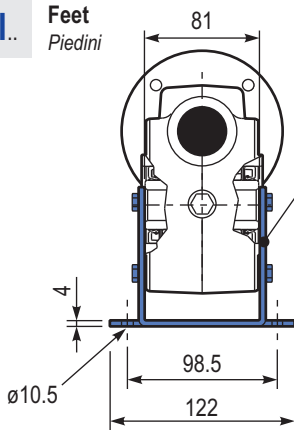
Gearbox weight
Peso riduttore **5.3 kg**

Hollow shaft
Foro in uscita

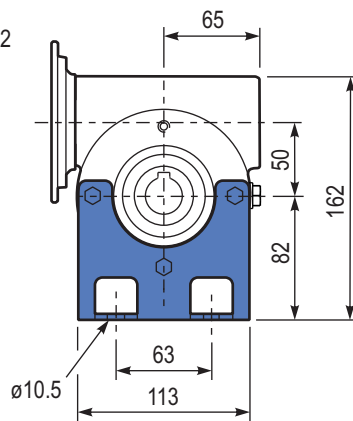


PN50PAI..

Feet
Piedini

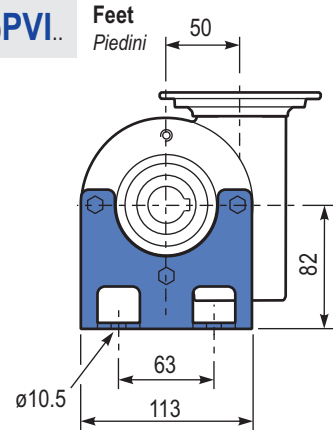


kit cod. KN509022



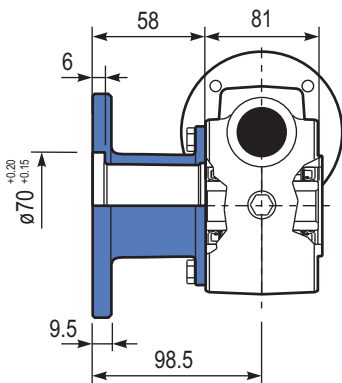
PN50PVI..

Feet
Piedini

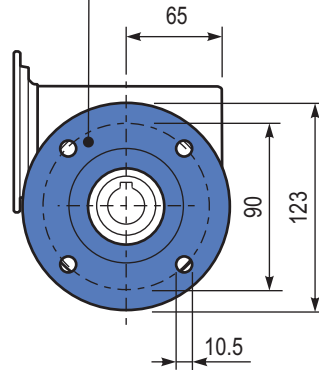


PN50FLL..

Output flange
Flangia uscita

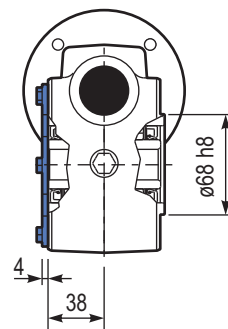


kit cod. KN509011

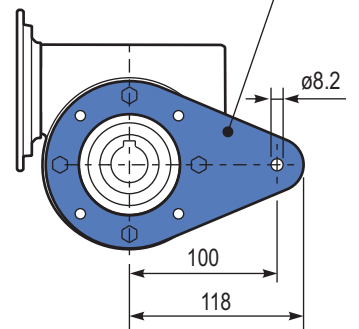


PN50BRI..

Reaction arm
Braccio di reazione

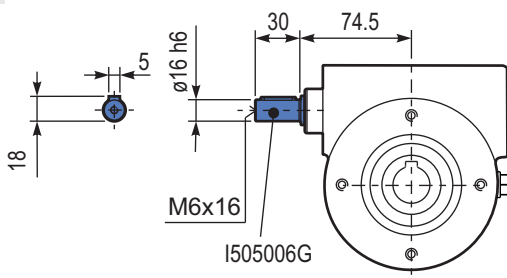


kit cod. KN509027



RN50UNI..

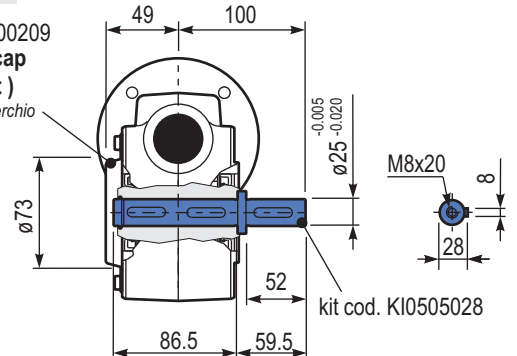
Input shaft
Albero in entrata



PN50..SMF

Single output shaft
Albero semplice in uscita

kit cod. KN500209
Protection cap
(on request)
A richiesta coperchio di protezione



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]	Ratio code
							-	-	-	-Q	-R	-T			
200	7	1.8	71	1.8	3.2	125	-	-	-	-Q	-R	-T	83	3.1	01
140	10	1.8	99	1.4	2.4	134	-	-	-	71	80	90	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 N63 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 N63 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:
0.45 L

Quantità olio per tutte le posizioni: 0.45 L

Shell
Omala S4 WE 320

Eni
Telium VSF 320

Tab. 1

Suggested

Suggerito

Stainless steel protection cap (on request).

Coperchio di protezione in acciaio inox a richiesta.

Kit cod. KN630209



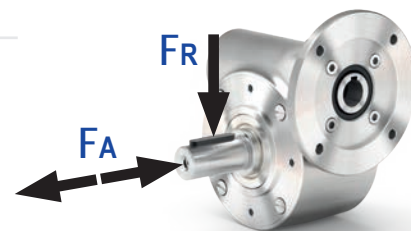
Radial and axial loads

Carichi radiali e assiali

Output shaft

Albero di uscita

n_2 [min ⁻¹]	FA [N]	FR [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]	FA [N]	FR [N]
1400	90	450

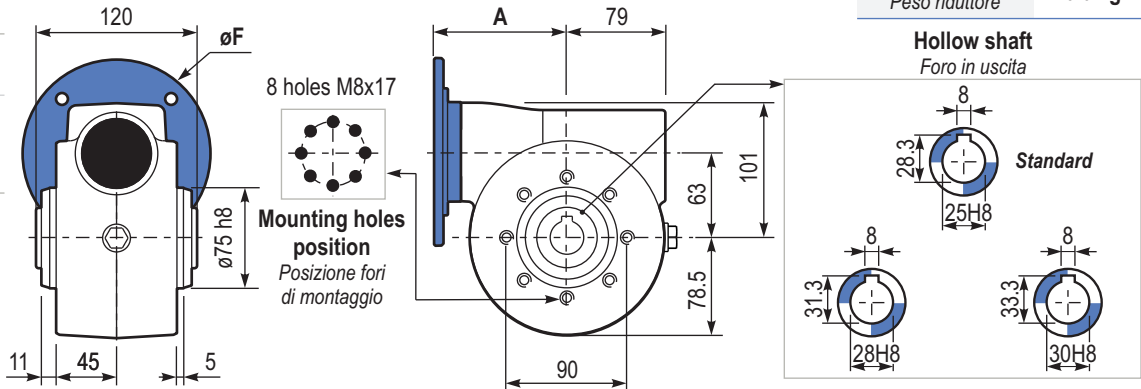
* Strong axial loads in the DX direction are not allowed.

* Non sono consentiti forti carichi assiali con direzione DX

Tab. 2

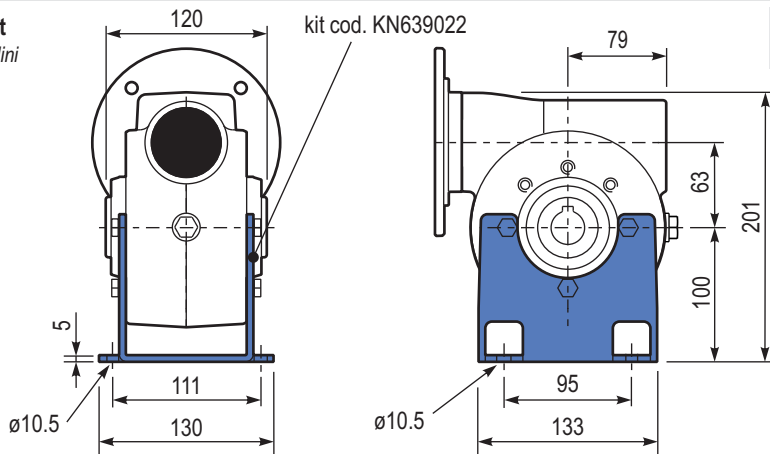
PN63UNI.. Basic gearbox
Riduttore base

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

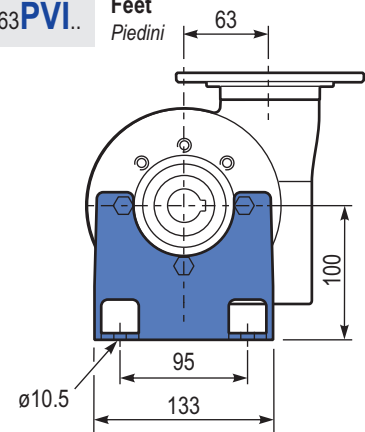


Gearbox weight
Peso riduttore **10.0 kg**

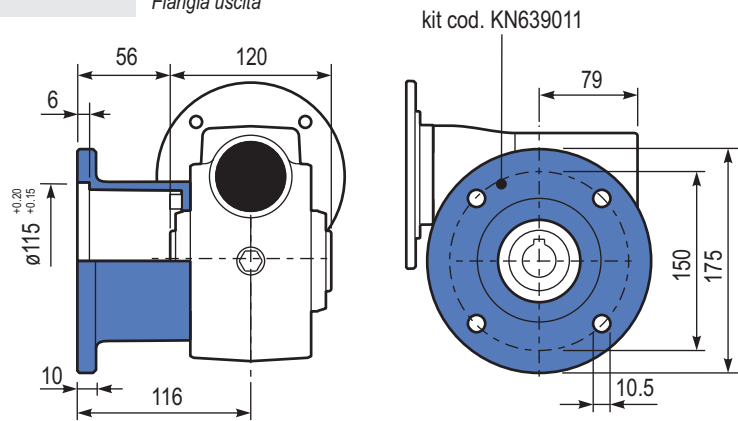
PN63PAI.. Feet
Piedini



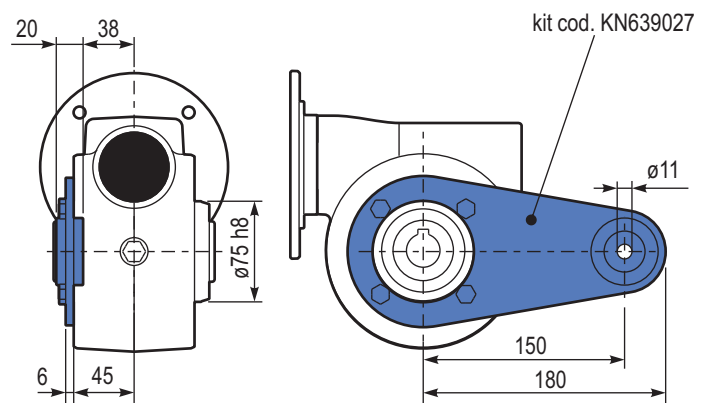
PN63PVI.. Feet
Piedini



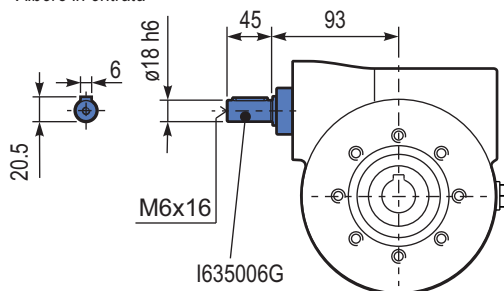
PN63FLL.. Output flange
Flangia uscita



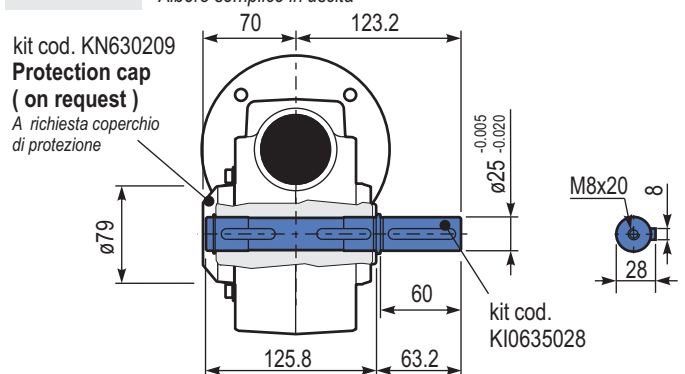
PN63BRI.. Reaction arm
Braccio di reazione



RN63UNI.. Input shaft
Albero in entrata



PN63..SMF Single output shaft
Albero semplice in uscita



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]	Ratio code
							-	-	-	-	-R	-T	-U			
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 N85 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 N85 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:
1.0 L

Quantità olio per tutte le posizioni: 1.0 L

Shell
Omala S4 WE 320

Eni
Telium VSF 320

Tab. 1

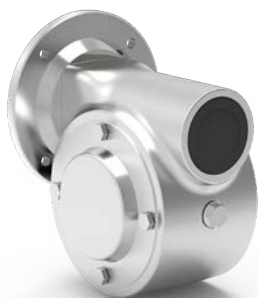
Suggested

Suggerito

Stainless steel protection cap (on request).

Coperchio di protezione in acciaio inox a richiesta.

Kit cod. KN850209



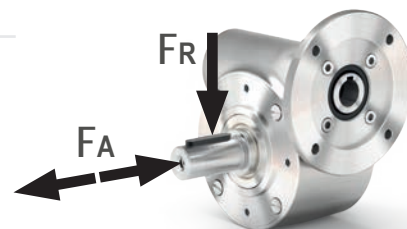
Radial and axial loads

Carichi radiali e assiali

Output shaft

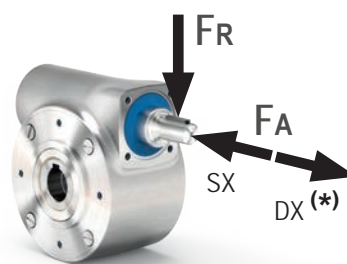
Albero di uscita

n_2 [min ⁻¹]	FA [N]	FR [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]	FA [N]	FR [N]
1400	130	650

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

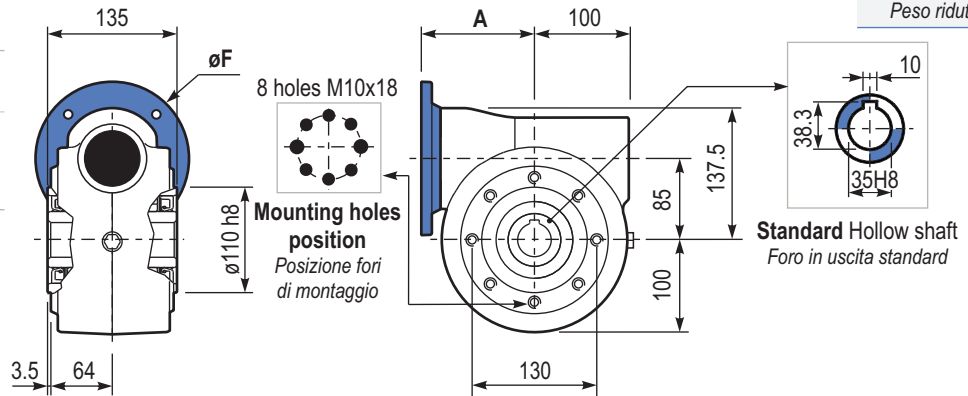
* Non sono consentiti forti carichi assiali con direzione DX

Tab. 2

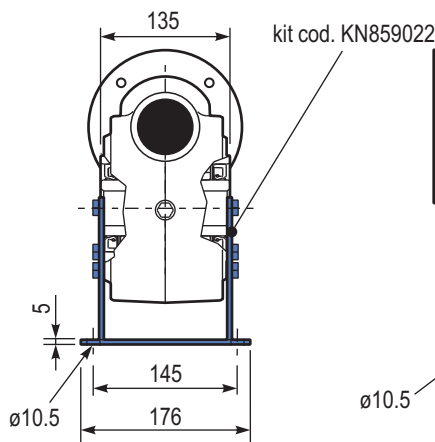
PN85UNI.. Basic gearbox
Riduttore base

Gearbox weight
Peso riduttore 21.0 kg

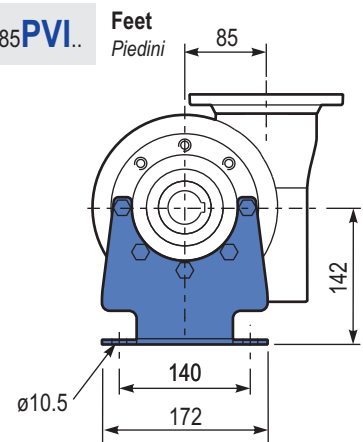
M. flanges	Kit code	øF	A
80B14	KI854046	120	118
90B14	KI854045	140	118
100/112B14	KI854041	160	127



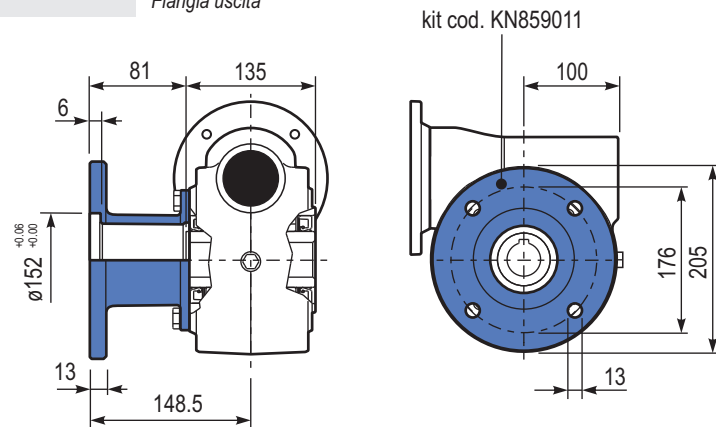
PN85PAI.. Feet
Piedini



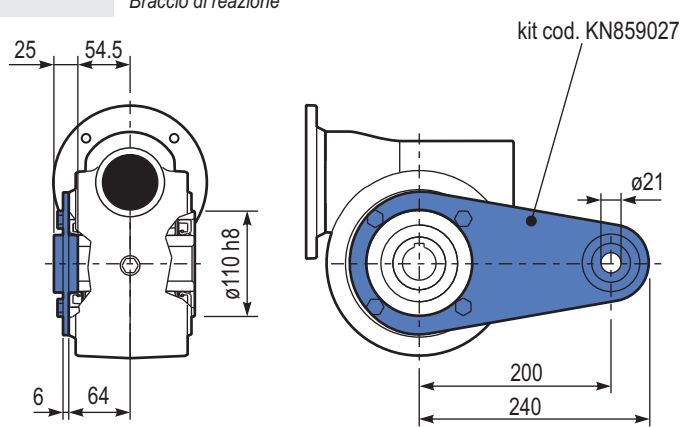
PN85PVI.. Feet
Piedini



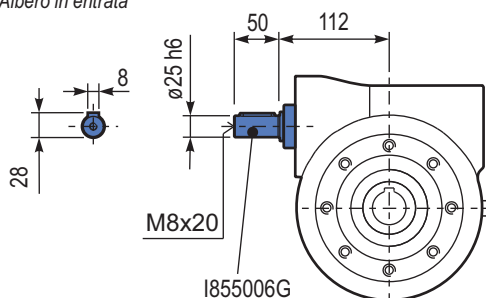
PN85FLL.. Output flange
Flangia uscita



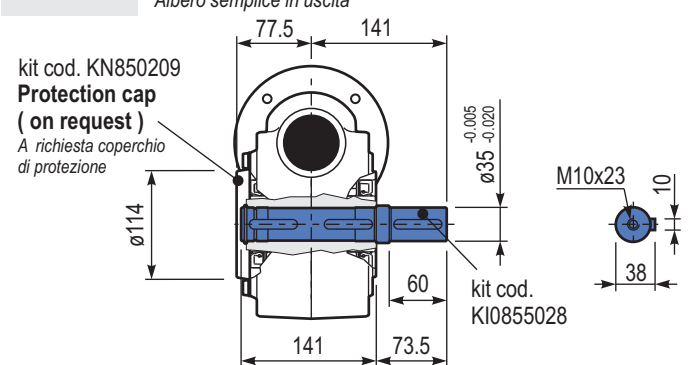
PN85BRI.. Reaction arm
Braccio di reazione



RN85UNI.. Input shaft
Albero in entrata





PN85..SMK Single output shaft
Albero semplice in uscita



N45 Ratios/Rating

Rapporti/Selezione N45


Ratio	Max output torque ** M_{2R} [Nm]	Tooth module  [mm]	Standard input bore	Ratio code 
i _a				
7	35	2.2	∅14	01
10	35	2.2	∅14	02
14	35	2.4	∅14	03
21	47	1.6	∅14	04
28	47	2.5	∅14	05
37	47	1.8	∅14	06
46	47	1.5	∅14	07
60	47	1.2	∅14	08
70	35	1.0	∅14	09
102	34	0.72	∅14	10

N45 weight
Peso N45

4.10 kg

211N Ratios/Power

Rapporti/potenza 211N

Ratio	Max input power ** P_{1M} [kW]	Standard output shaft	Ratios code 
i _b			
2.05	0.37	∅14	01
2.35	0.37	∅14	02
2.80	0.37	∅14	03
3.38	0.37	∅14	04
4.70	0.37	∅14	05
6.22	0.37	∅14	06
8.29	0.37	∅14	07
9.83	0.25	∅14	08

211N weight
Peso 211N

2.50 kg

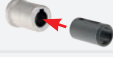

211N Motor flanges

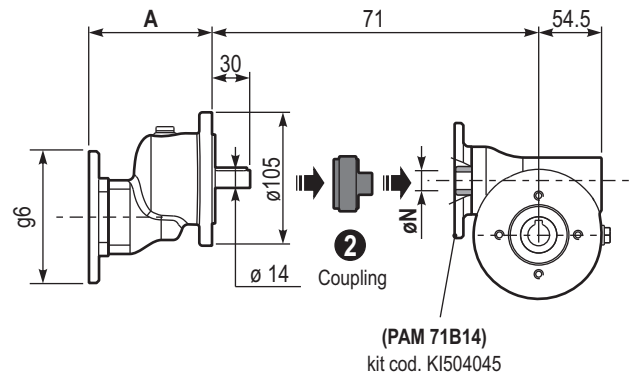
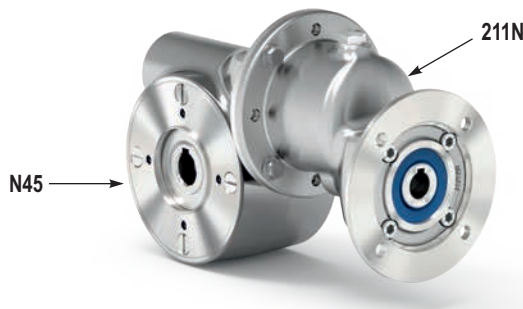
Flange motore 211N

	kit code	g6	A
63B14	KI504047	90	99.5
71B14	KI504045	105	97

How to connect N45+211N

Come collegare N45 + 211N

Worm gearbox		Ratio multiplier	Connection kit	
Standard input bore	Output shaft	211N	With standard input bore	With coupling
N45	∅N	211N		
Ratios from 1/7 ÷ 1/102	∅14	∅14	Reduction bushing is not necessary	KB14P



Ratios range: from 1/14 to 1/1003

Range rapporti: da 1/14 a 1/1003

Lubrication

Lubrificazione

Unit N45+211N 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.

Il riduttore tipo N45+211N viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare.

Vedi Tabella 1 per oli e quantità consigliati.

For all details on lubrication and plugs check our website.

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

N45: 0.13 L	SHELL: Omala S4 WE 320	ENI: Telium VSF 320
211N: 0.05 L	SHELL: Omala S4 WE 320	ENI: Telium VSF 320

tab. 1

Calculate total ratio and output speed

Calcola il rapporto totale e la velocità di uscita

Ratios range: from 1/14 to 1/1003

Range rapporti: da 1/14 a 1/1003

$$i_{TOT} = i_a \cdot i_b$$

Ex.: 1/102 x 1/9.83 = 1/1003 (Max ratio)

Output speed (n₂)

Velocità di uscita

$$n_2 = n_1 : i_{TOT}$$

Ex.: 1448 : 1003 = 1.44 rpm

i_a : N45 ratio - Rapporto N45

i_b : 211N ratio - Rapporto 211N

** Make sure input power for 211N and output torque for N45 is as catalogue ratios.

** Prestare attenzione a selezionare la potenza in entrata del 211N ed il momento torcente del N45 secondo le tabelle del catalogo.

n₁ Input speed

Velocità di ingresso



VFN series with ratio multiplier RCN series

N50 211N

Riduttori a vite senza fine serie VFN in acciaio inox con precoppia serie RCN

N50 Ratios/Rating

Rapporti/Selezione N50


Ratio	Max output torque $**M_{2R}$ [Nm]	Tooth module  [mm]	Standard input bore	Ratio code 
i_a				
7	65	2.5	∅19	01
10	71	2.4	∅19	02
14	78	2.6	∅19	03
18	71	2.0	∅19	04
26	76	2.7	∅19	05
30	83	2.5	∅19	12
36	83	2.1	∅14	06
43	78	1.8	∅14	07
50	76	1.5	∅14	13
60	71	1.3	∅14	08
68	66	1.2	∅14	09
80	65	1.0	∅14	10
100	59	0.8	∅14	11

N50 weight
Peso N50

5.30 kg

211N Ratios/Power

Rapporti/potenza 211N

Ratio	Max input power $**P_{1M}$ [kW]	Output shaft	Ratios code 
i_b			
2.05	0.37	∅14	01
2.35	0.37	∅14	02
2.80	0.37	∅14	03
3.38	0.37	∅14	04
4.70	0.37	∅14	05
6.22	0.37	∅14	06
8.29	0.37	∅14	07
9.83	0.25	∅14	08

211N weight
Peso 211N

2.50 kg



211N Motor flanges

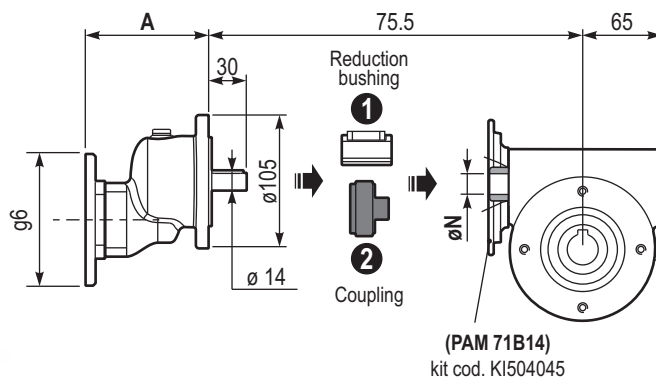
Flange motore 211N

	kit code	g6	A
63B14	KI504047	90	99.5
71B14	KI504045	105	97

How to connect N50+211N

Come collegare N50 + 211N

Worm gearbox		Ratio multiplier	Connection kit	
Standard input bore	Output shaft	211N	With standard input bore	With coupling
N50	∅N	211N		
Ratios from 1/7 ÷ 1/30	∅19	∅14	KBR14/19	KC14P
Ratios from 1/36 ÷ 1/100	∅14		Reduction bushing is not necessary	



Ratios range: from 1/14 to 1/983

Range rapporti: da 1/14 a 1/983

Lubrication

Lubrificazione

Unit N50+211N 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.

Il riduttore tipo N50+211N viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare.

Vedi Tabella 1 per oli e quantità consigliati.

For all details on lubrication and plugs check our website.

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

N50: 0.18 L	SHELL: Omala S4 WE 320	ENI: Telium VSF 320
211N: 0.05 L	SHELL: Omala S4 WE 320	ENI: Telium VSF 320

tab. 1

Calculate total ratio and output speed

Calcola il rapporto totale e la velocità di uscita

Ratios range: from 1/14 to 1/983

Range rapporti: da 1/14 a 1/983

$$i_{TOT} = i_a \cdot i_b$$

Ex.: $1/100 \times 1/9.83 = 1/983$ (Max ratio)

Output speed (n_2)

Velocità di uscita

$$n_2 = n_1 : i_{TOT}$$

Ex.: $1448 : 983 = 1.47$ rpm

i_a : N50 ratio - Rapporto N50

i_b : 211N ratio - Rapporto 211N

** Make sure input power for 211N and output torque for N50 is as catalogue ratios.

** Prestare attenzione a selezionare la potenza in entrata del 211N ed il momento torcente del N50 secondo le tabelle del catalogo.

n_1 Input speed

Velocità di ingresso



N63 211N

VFN series with ratio multiplier RCN series

Riduttori a vite senza fine serie VFN in acciaio inox con precoppia serie RCN

N63 Ratios/Rating

Rapporti/Selezione N63


Ratio	Max output torque ** M_{2R} [Nm]	Tooth module  [mm]	Standard input bore	Ratio code 
i _a				
7	144	3.1	ø24	01
10	155	3.1	ø24	02
15	158	3.1	ø24	03
19	158	2.6	ø24	04
24	163	2.0	ø24	05
30	168	3.2	ø24	06
36	169	2.7	ø24	07
40	161	2.5	ø24	13
45	156	2.1	ø19	08
60	150	1.6	ø19	12
67	142	1.5	ø19	09
80	136	1.3	ø19	10
94	136	1.1	ø19	11

N63 weight
Peso N63

10.00 kg

211N Ratios/Power

Rapporti/potenza 211N

Ratio	Max input power ** P_{1M} [kW]	Standard output shaft	Ratios code 
i _b			
2.05	0.37	ø14	01
2.35	0.37	ø14	02
2.80	0.37	ø14	03
3.38	0.37	ø14	04
4.70	0.37	ø14	05
6.22	0.37	ø14	06
8.29	0.37	ø14	07
9.83	0.25	ø14	08

211N weight
Peso 211N

2.50 kg


211N Motor flanges

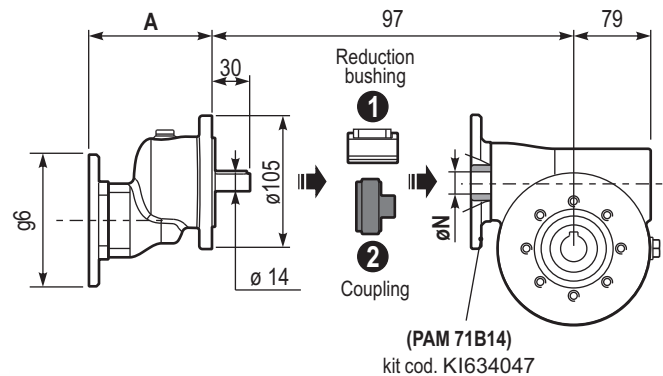
Flange motore 211N

	kit code	g6	A
63B14	KI504047	90	99.5
71B14	KI504045	105	97

How to connect N63+211N

Come collegare N63 + 211N

Worm gearbox	Ratio multiplier	Connection kit	
		With standard input bore	With coupling
Standard input bore	Output shaft		
N63	øN	211N	
Ratios from 1/7 ÷ 1/40	ø24	ø14	KBR14/24
Ratios from 1/45 ÷ 1/94	ø19		KD14P



Ratios range: from 1/14 to 1/924

Range rapporti: da 1/14 a 1/924

Lubrication

Lubrificazione

Unit N63+211N 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.

Il riduttore tipo N63+211N viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare. Vedi Tabella 1 per oli e quantità consigliati.

For all details on lubrication and plugs check our website.

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

N63: 0.45 L	SHELL: Omala S4 WE 320	ENI: Telium VSF 320
211N: 0.05 L	SHELL: Omala S4 WE 320	ENI: Telium VSF 320

Calculate total ratio and output speed

Calcola il rapporto totale e la velocità di uscita

Ratios range: from 1/14 to 1/924

Range rapporti: da 1/14 a 1/924

$$i_{TOT} = i_a \cdot i_b$$

Ex.: 1/94 x 1/9.83 = 1/924 (Max ratio)

Output speed (n₂)

Velocità di uscita

$$n_2 = n_1 : i_{TOT}$$

Ex.: 1448 : 924 = 1.57 rpm

i_a : N63 ratio - Rapporto N63

i_b : 211N ratio - Rapporto 211N

** Make sure input power for 211N and output torque for N63 is as catalogue ratios.

** Prestare attenzione a selezionare la potenza in entrata del 211N ed il momento torcente del N63 secondo le tabelle del catalogo.

n₁ Input speed

Velocità di ingresso



VFN series with ratio multiplier RCN series

N85 211N

Riduttori a vite senza fine serie VFN in acciaio inox con precoppia serie RCN

N85 Ratios/Rating

Rapporti/Selezione N85


Ratio	Max output torque $**M_{2R}$ [Nm]	Tooth module  [mm]	Standard input bore	Ratio code 
i_a				
7	296	4.23	ø28	01
10	326	4.2	ø28	02
14	350	4.5	ø28	03
20	338	3.4	ø28	04
22	338	3.1	ø28	05
28	398	4.7	ø28	06
38	386	3.5	ø24	07
46	374	3.1	ø24	08
52	332	2.7	ø24	09
67	332	2.1	ø24	10
74	308	1.9	ø24	11
96	278	1.5	ø24	12

N85 weight
Peso N85

21.00 kg

211N Ratios/Power

Rapporti/potenza 211N

Ratio	Max input power $**P_{1M}$ [kW]	Output shaft	Ratios code 
i_b			
2.05	0.37	ø14	01
2.35	0.37	ø14	02
2.80	0.37	ø14	03
3.38	0.37	ø14	04
4.70	0.37	ø14	05
6.22	0.37	ø14	06
8.29	0.37	ø14	07
9.83	0.25	ø14	08

211N weight
Peso 211N

2.50 kg

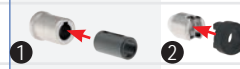
211N Motor flanges

Flange motore 211N

	kit code	g6	A
63B14	KI504047	90	99.5
71B14	KI504045	105	97

How to connect N85+211N

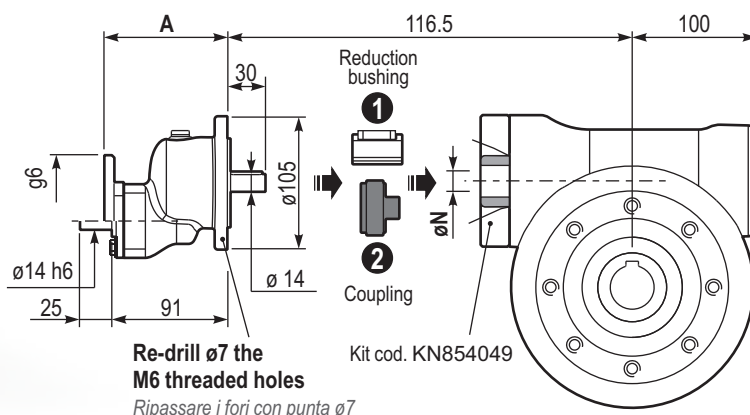
Come collegare N85 + 211N

Worm gearbox	Ratio multiplier	Connection kit	
		With standard input bore	With coupling
Standard input bore	Output shaft		
N85	øN	211N	
Ratios from 1/7 ÷ 1/28	ø28	ø14	KBR14/28
Ratios from 1/38 ÷ 1/96	ø24		KBR14/24
			KE14P



Ratios range: from 1/14 to 1/944

Range rapporti: da 1/14 a 1/924



Lubrication

Lubrificazione

Unit N85+211N 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.

Il riduttore tipo N85+211N viene fornito con olio sintetico e lubrificazione tipo "long life".

Disponibile a richiesta olio alimentare. Vedi Tabella 1 per oli e quantità consigliati.

For all details on lubrication and plugs check our website.

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

N85: 1.00 L	SHELL: Omala S4 WE 320	ENI: Telium VSF 320
211N: 0.05 L	SHELL: Omala S4 WE 320	ENI: Telium VSF 320

tab. 1

Calculate total ratio and output speed

Calcola il rapporto totale e la velocità di uscita

Ratios range: from 1/14 to 1/944

Range rapporti: da 1/14 a 1/924

$$i_{TOT} = i_a \cdot i_b$$

Ex.: $1/96 \times 1/9.83 = 1/944$ (Max ratio)

Output speed (n_2)

Velocità di uscita

$$n_2 = n_1 : i_{TOT}$$

Ex.: $1448 : 944 = 1.53$ rpm

i_a : N85 ratio - Rapporto N85

i_b : 211N ratio - Rapporto 211N

** Make sure input power for 211N and output torque for N85 is as catalogue ratios.

** Prestare attenzione a selezionare la potenza in entrata del 211N ed il momento torcente del N85 secondo le tabelle del catalogo.

n_1 Input speed

Velocità di ingresso