

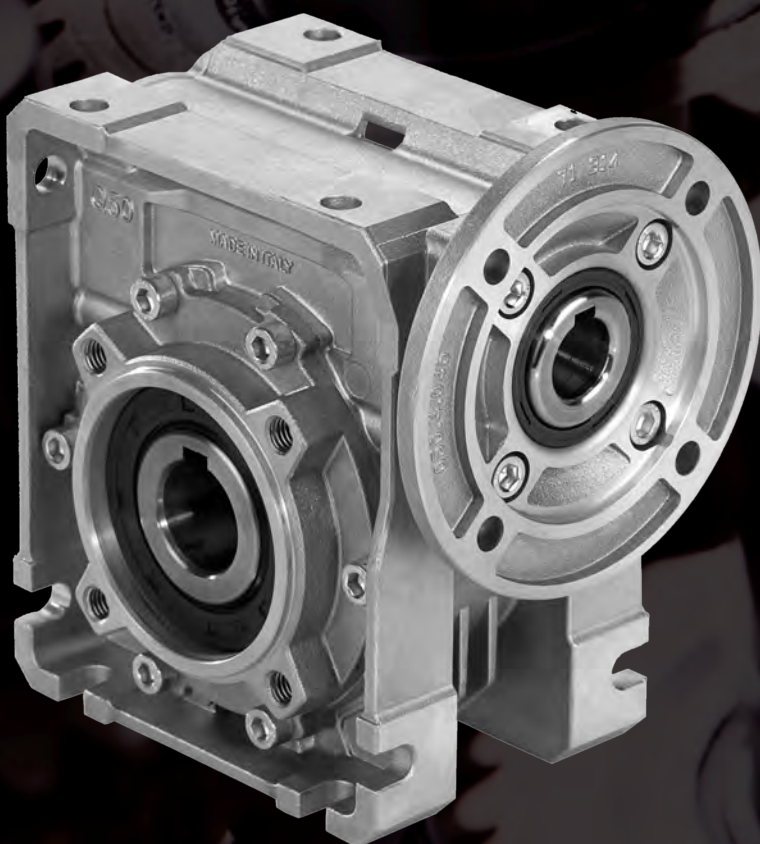
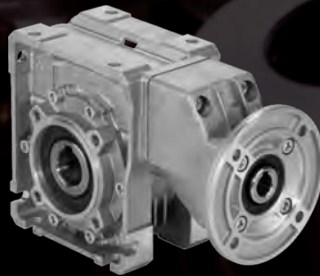
# Square

# Gears

Cat.: CT-VFP-Q-HM012

**Worm gearboxes**

Riduttori a vite senza fine



***Nema-Inch Range***

# HYDRO • MEC

# Worm gearboxes type Q45 ÷ Q85

## A modular and compact product

### Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

### Single piece alloy steel input shaft and worm shaft.

High helix angle worm is case-hardened (Rc 58-60), ground, teeth are profiled and radiused, for noise reduction and enhanced efficiency.

### Oversized bearings

Support positively-retained, high speed shaft for higher shock load capacity - ideal for frequent starting and reversing application. Premium, Nitrile® high temperature seals each end.

### Flange

Fully modular to IEC and compact integrated motor. NEMA C flange.

### Premium, high temperature

Nitrile® output seals

### Bronze alloy worm gears.

Is centrifugally cast onto an iron hub for maximum strength and superior life.

### Oversize bearing

For radial load capability and maximum hollow output shaft diameter.

### Standard hollow output shaft mounting

Reduces total drive envelope size, weight and cost. Single and double solid output shaft is available.

### Impregnated and machined bearing caps

With exterior machined surfaces enable a variety of mounting accessories. Extra-deep thread engagement provided for greater support strength. Zinc plated hardware.

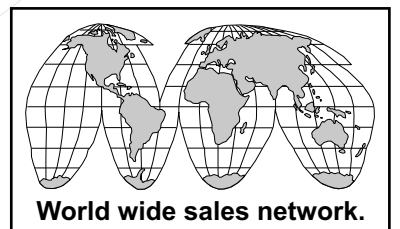
### Vent Free Design.

No breather or vents to leak! Factory lubricated for life with synthetic, semi-fluid gear lubricant with an operating range of -15°C to 130°C.

oil free



vent free



World wide sales network.

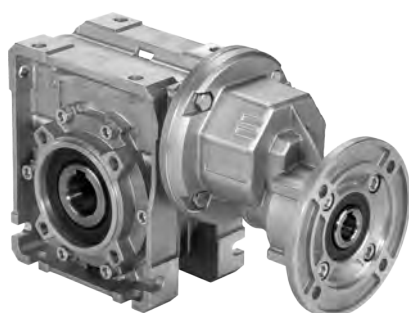
On page / A pagina / En la página



Types / tipi / Tipos →

3-3	3-5	3-7	3-9
<b>Q45</b> 345 lb in	<b>Q50</b> 611 lb in	<b>Q63</b> 1240 lb in	<b>Q85</b> 2921 lb in

On page / A pagina / En la página



Types / tipi / Tipos  
with speed multiplier →

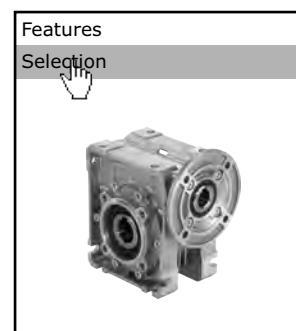
3-11	3-12	3-13	3-14
<b>Q45+211A</b> 443 lb in	<b>Q50+211A</b> 708 lb in	<b>Q63+411A</b> 1505 lb in	<b>Q85+511A</b> 3540 lb in

For : / Per : / Para :

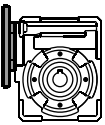
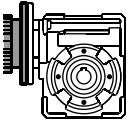
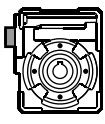
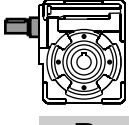
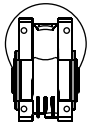
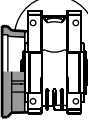
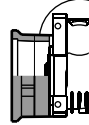
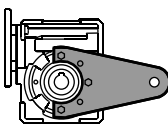
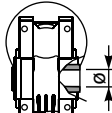
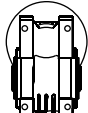
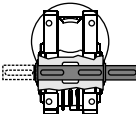
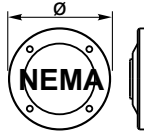
- Selection guide - fs**  
Guida alla selezione
- Mounting pos. - Lubrication**  
Pos. di montaggio - lubrificazione
- 2 - 6 poles selection**  
Selezione 2 - 6 poli
- Radial - axial loads**  
Carichi radiali e assiali
- Reversibility**  
Reversibilità
- Thermal limit**  
Limite termico

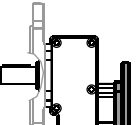
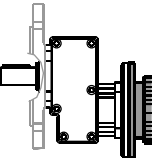
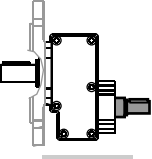
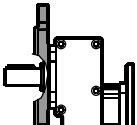
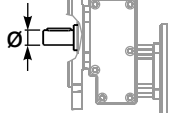
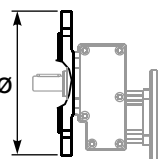
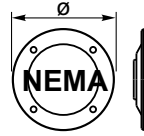
- Atex certification**  
Certificazione Atex
- Accessories**  
Accessori
- Download 3D drawings**  
Download disegni 3D
- Interchangeability**  
Intercambiabilità
- Installation and maintenance**  
Installazione, uso e manutenzione
- Spare parts list**  
Liste parti di ricambio

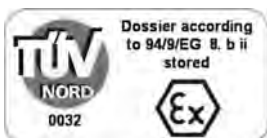
Use our web database to get detailed informations, always updated on each type/size.



CODIFICA / HOW TO ORDER / CODIFICACIÓN

Type - Tipo - Tipo	Size - Grandezza Tamaño	Mounting - Montaggio Tipo de montaje	Ratio Rapporto Relación	Hub - Mozzo corona Nucleo corona	Output shaft Albero lento Eje solida	Motor size Grandezza motore Tamaño motor
<b>P</b>	<b>Q45</b>	<b>PA</b>	<b>10</b>	<b>U</b>	<b>S</b>	<b>W</b>
 P  M  B  R	Q45 Q50 Q63 Q85	 FB  FC  FL  BR <b>F1</b> <b>F2</b> <b>F3</b> <b>F4</b>	See technical data table Vedi tabelle dati tecnici. Ver tabla datos técnicos	 U INCH 045 ⇒ $\varnothing 0.750''$ 050 ⇒ $\varnothing 1.000''$ 063 ⇒ $\varnothing 1.125''$ 085 ⇒ $\varnothing 1.500''$	 Ø  S	 With Flange for type <b>P</b> <b>W</b> ⇒ 56C <b>X</b> ⇒ 143/5TC <b>Y</b> ⇒ 182/4TC <b>N</b> without flange Senza flangia For Modular Base type <b>B</b> 045 ⇒ $\varnothing 0.625$ 050 ⇒ $\varnothing 0.625$ 063 ⇒ $\varnothing 0.875$ 085 ⇒ $\varnothing 1.125$ <b>Z</b> For Type - R

<b>P</b>	<b>311A</b>	<b>-F</b>	<b>2.84</b>	<b>X</b>	<b>S</b>	<b>W</b>
 P  M  R	211A 411A 511A	 -F	See technical data table Vedi tabelle dati tecnici. Ver tabla datos técnicos	Output shaft diameter Diametro albero uscita  <b>X</b> 211A $\varnothing 0.625$ <b>W</b> 411A $\varnothing 0.875$ <b>Y</b> 511A $\varnothing 1.125$	Output flange diameter Diametro flangia uscita  <b>2</b> 211A ⇒ $\varnothing 71$ B14 (metric) <b>U</b> 411A 511A ⇒ $\varnothing 143/5TC$	 With Flange for type <b>P</b> <b>W</b> ⇒ 56C <b>X</b> ⇒ 143/5TC

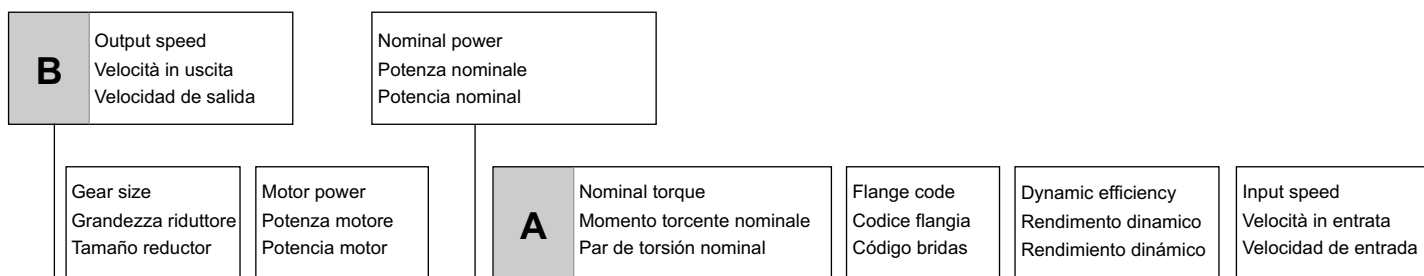


A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX

On request we can deliver our products according to the ATEX

A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

## How to select a gearbox / Come selezionare un riduttore Cómo seleccionar un reductor



# Q45 Rightangle - Gear

## 345lb in

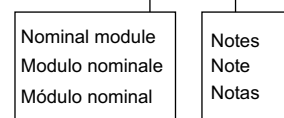
Rating - Alluminum WORM GEARBOXES



### QUICK SELECTION / Selezione veloce

input speed (n<sub>i</sub>) = 1750 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [HP]	Output torque $M_{2M}$ [lb in]	Service factor f.s.	Nominal power $P_{1R}$ [HP]	Nominal torque $M_{2R}$ [lb in]	Available NEMA motor flanges	Dynamic efficiency	Tooth Module	Ratios code
250.0	7	1	202	1.3	1.29	257	W	RD	Mn	01
175.0	10	0.75	213	1.2	0.91	257	-	79	2.2	02
125.0	14	0.75	291	0.9	0.67	257	56C	77	2.4	03



Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		<2 h	2 - 8 h	8 - 16 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.9	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1.25	1.5	1.75
	Moderate / Moderato	1.5	1.75	2
	Heavy / Forte	1.75	2	2.25

<b>D</b>	Motor flange available Flange disponibili Bridas disponibles
<b>B)</b>	Mounting with reduction ring Montaggio con boccola di riduzione Montaje con casquillo de reducción
<b>C)</b>	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Posición agujeros brida / base motor
<b>B)</b>	Available without reduction bushes Disponibile anche senza boccola Disponibile tambien sin casquillo

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Seleccionar la brida disponible (sobre pedido)



QUICK SELECTION / Selezione veloce							input speed (n <sub>1</sub> ) = 1750 min <sup>-1</sup>				
Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [HP]	Output torque M <sub>2M</sub> [lb in]	Service factor f.s.	Nominal power P <sub>1R</sub> [HP]	Nominal torque M <sub>2R</sub> [lb in]	Available NEMA motor flanges		Dynamic efficiency	Tooth Module Mn [mm]	Ratio code
							W	-			
							56C	-	RD		
250.0	7	1	202	2.1	1.29	257			80	2.2	01
175.0	10	0.75	213	1.5	0.91	257			79	2.2	02
125.0	14	0.75	291	1.1	0.67	257			77	2.4	03
83.3	21	0.5	253	1.1	0.69	345			67	1.6	04
62.5	28	0.5	328	1.3	0.53	345			65	2.5	05
47.3	37	0.33	277	1.0	0.42	345			63	1.8	06
38.0	46	0.33	323	0.8	0.36	345			59	1.5	07
29.2	60	0.33	399	0.9	0.29	345			56	1.2	08
25.0	70	0.25	340	0.8	0.19	257			54	1.0	09
17.2	102	0.25*	450	<0.8	0.14	248			49	0.72	10

**A) 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

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M<sub>2R</sub>  
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M<sub>2R</sub>

**EN** Unit Q45 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox. [For complete documentation please visit our web site.](#)

**I** Il riduttore tipo Q45 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore. [Per la documentazione completa consulta il nostro sito.](#)

**E** El reductor tamaño Q45 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor. [Para documentación completa, consultar nuestra Web.](#)

### LUBRICATION Q45 Oil Quantity 2.82 ounces

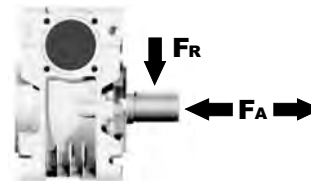
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

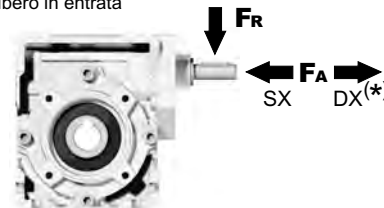
### RADIAL AND AXIAL LOADS

#### Output shaft Albero di uscita



n <sub>2</sub> [min <sup>-1</sup> ]	FA [lb]	FR [lb]
200	40	202
150	45	225
100	49	247
75	54	270
50	58	315
25	67	405
15	90	450

#### Input shaft albero in entrata



n <sub>1</sub> [min <sup>-1</sup> ]	FA [lb]	FR [lb]
1750	9	47

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

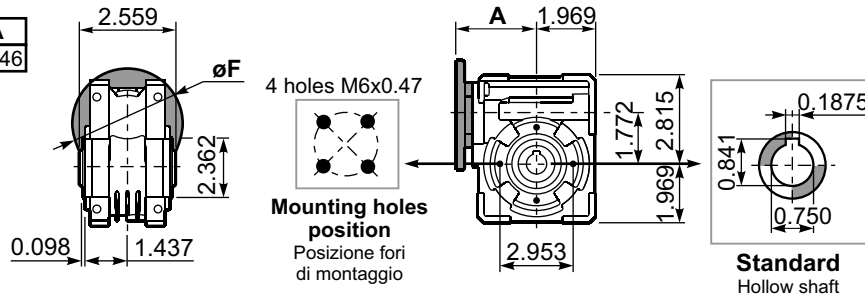
tab. 2

**SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**  
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

PQ45**FB**... Basic wormbox  
Riduttore base

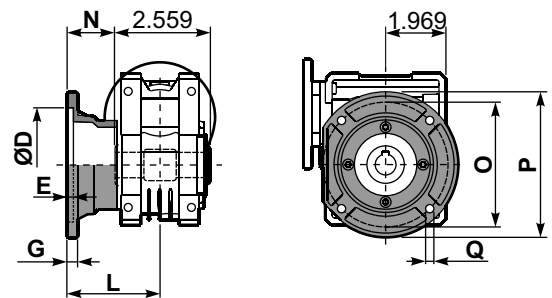
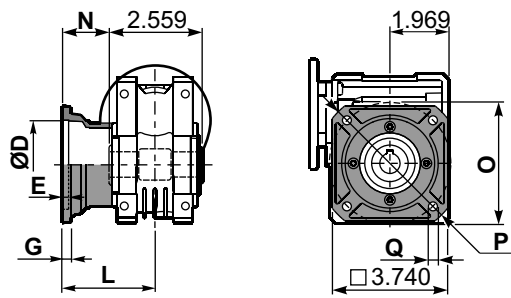
Gearbox weight  
peso riduttore **5.07 lb**

M. flanges	Kit code	øF	A
<b>56C</b>	KU050.4.041	6.5	3.846



PQ45**FC**... Square flange  
Flangia quadrata

PQ45**F1**... Round flange  
Flangia rotonda

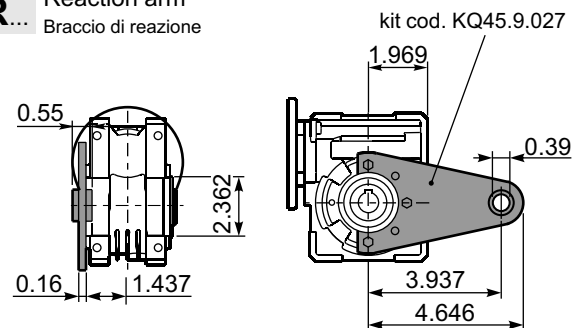
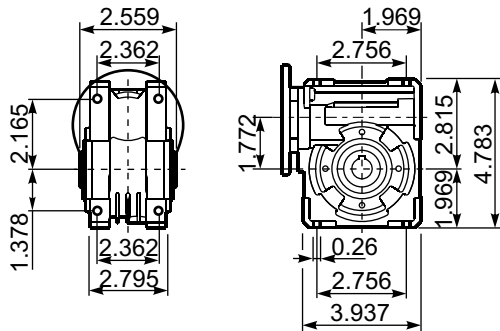


type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	2.3640 2.3622	0.16	0.28	2.638	1.358	2.953	4.331	0.35	KQ45.9.010
<b>FL</b>	2.3640 2.3622	0.16	0.28	3.819	2.539	2.953	4.331	0.35	KQ45.9.011

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	3.7423 3.7402	0.20	0.35	3.150	1.870	4.528	5.512	0.37	KSQ45.9.012
<b>F2</b>	3.1514 3.1496	0.20	0.47	2.283	1.004	3.937	4.724	0.35	KSQ45.9.013

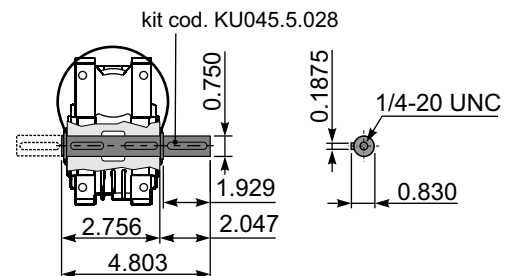
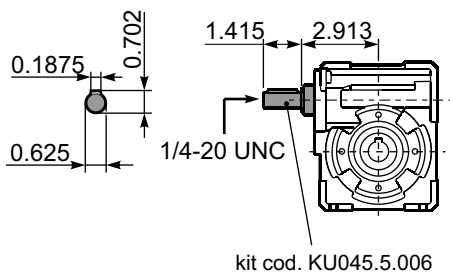
PQ45**FB**... Feet  
Piedini

PQ45**BR**... Reaction arm  
Braccio di reazione



RQ45**FB**... Input shaft  
Albero in entrata

PQ45.....**S**... Single Shaft  
Albero lento semplice



**On request : Special Hollow Shafts**  
Mozzo Uscita Speciale

**On request : Double extended worm shaft**  
Vite bisporgente





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1750 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [HP]	Output torque $M_{2M}$ [lb in]	Service factor f.s.	Nominal power $P_{1R}$ [HP]	Nominal torque $M_{2R}$ [lb in]	Available NEMA motor flanges		Dynamic efficiency RD	Tooth Module $M_n$ [mm]	Ratios code
							W	-			
250.0	7	2	413	1.2	2.34	478	56C	-	82	2.5	01
175.0	10	1.5	432	1.2	1.84	522			80	2.4	02
125.0	14	1	398	1.4	1.46	575			79	2.6	03
97.2	18	1	486	1.1	1.09	522			75	2.0	04
67.3	26	0.75	485	1.2	0.87	558			69	2.7	05
48.6	36	0.5	447	1.4	0.69	611			69	2.1	06
40.7	43	0.5	511	1.1	0.57	575			66	1.8	07
29.2	60	0.33	414	1.3	0.42	522			58	1.3	08
25.7	68	0.33	461	1.1	0.35	487			57	1.2	09
21.9	80	0.25	389	1.2	0.31	478			54	1.0	10
17.5	100	0.25	450	1.0	0.24	434			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

**EN** Unit Q50 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox. For complete documentation please visit our web site.

**I** Il riduttore tipo Q50 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore. Per la documentazione completa consulta il nostro sito.

**E** El reductor tamaño Q50 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor. Para documentación completa, consultar nuestra Web.

### LUBRICATION 050 Oil Quantity 4.58 ounces

AGIP Telium VSF 320

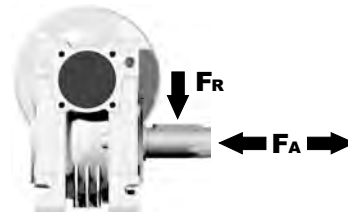
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

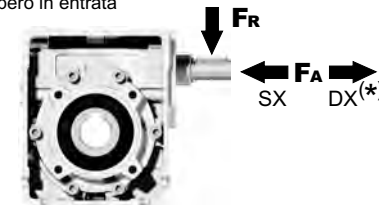
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [lb]	FR [lb]
200	54	270
150	63	315
100	67	337
75	76	382
50	85	427
25	108	562
15	126	629

#### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [lb]	FR [lb]
1750	17	85

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

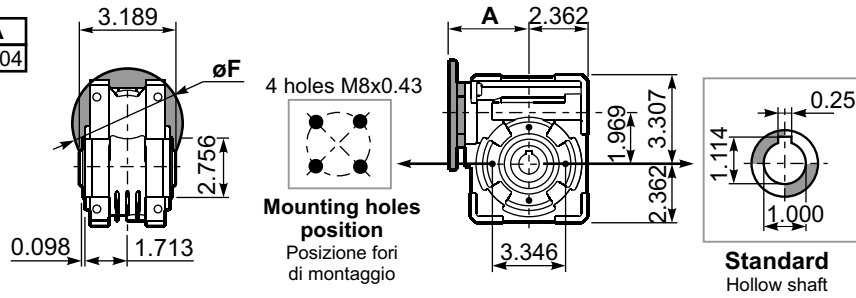
tab. 2

**SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**  
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

**PQ50FB...** Basic wormbox  
Riduttore base

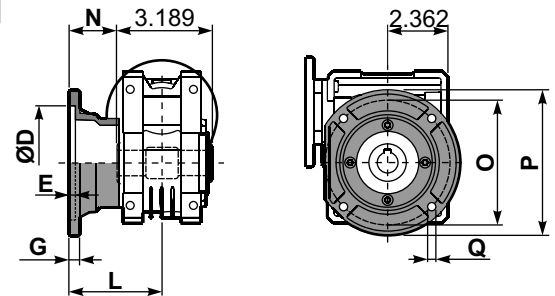
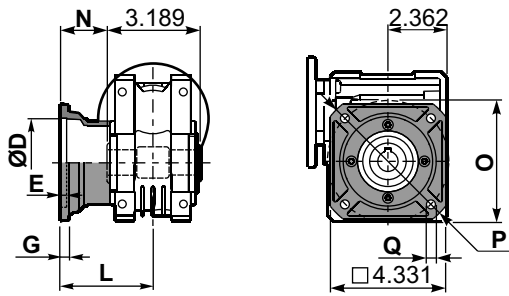
Gearbox weight  
peso riduttore **7.165 lb**

M. flanges	Kit code	øF	A
<b>56C</b>	KU050.4.041	6.5	4.004



**PQ50FC...** Square flange  
Flangia quadrata

**PQ50F1...** Round flange  
Flangia rotonda

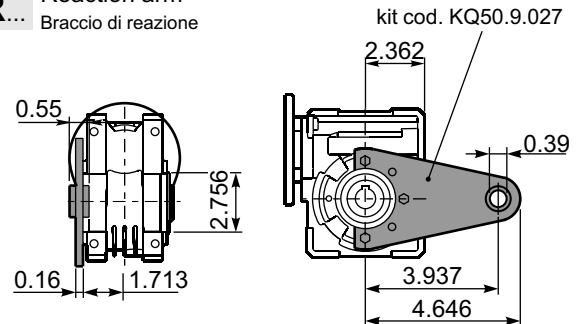
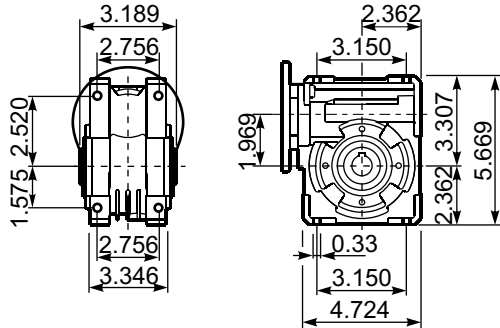


type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	2.7577 2.7559	0.20	0.35	3.543	1.949	3.346	4.921	0.43	KQ50.9.010
<b>FL</b>	2.7577 2.7559	0.20	0.35	4.724	3.130	3.346	4.921	0.43	KQ50.9.011

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	4.3328 4.3307	0.20	0.39	3.504	1.909	5.118	6.299	0.37	KSQ50.9.012
<b>F2</b>	3.7423 3.7402	0.20	0.57	2.835	1.240	4.528	5.512	0.43	KSQ50.9.013

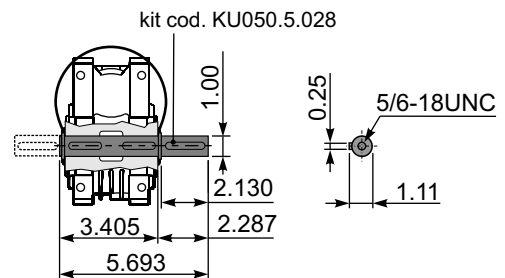
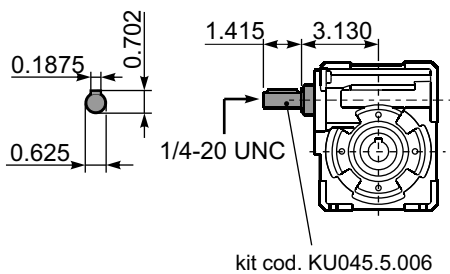
**PQ50FB...** Feet  
Piedini

**PQ50BR...** Reaction arm  
Braccio di reazione



**RQ50FB...** Input shaft  
Albero in entrata

**PQ50.....S...** Single Shaft  
Albero lento semplice



**On request : Special Hollow Shafts**  
Mozzo Uscita Speciale

**On request : Double extended worm shaft**  
Vite bisporgente





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1750 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [HP]	Output torque $M_{2M}$ [lb in]	Service factor f.s.	Nominal power $P_{1R}$ [HP]	Nominal torque $M_{2R}$ [lb in]	Available NEMA motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							W	X			
250.0	7	2	419	2.5	5.10	1053	56C	143-5TC	83	3.1	01
175.0	10	2	583	1.9	3.93	1133	B		81	3.1	02
116.7	15	2	854	1.4	2.75	1159	B		79	3.1	03
92.1	19	2	1068	1.1	2.20	1159	B		78	2.6	04
72.9	24	1.5	972	1.2	1.87	1195	B		75	2.0	05
58.3	30	1.5	1199	1.0	1.56	1230	B		74	3.2	06
48.6	36	1	882	1.4	1.42	1239	B		68	2.7	07
38.9	45	1	1070	1.1	1.08	1142	B		66	2.1	08
26.1	67	0.5	724	1.4	0.73	1044	B		60	1.5	09
21.9	80	0.5	821	1.2	0.62	1000	B		57	1.3	10
18.6	94	0.5	880	1.1	0.58	1000	B		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

**EN** Unit Q63 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox. For complete documentation please visit our web site.

**I** Il riduttore tipo Q63 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore. Per la documentazione completa consulta il nostro sito.

**E** El reductor tamaño Q63 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor. Para documentación completa, consultar nuestra Web.

### LUBRICATION Q63 Oil Quantity 10.6 ounces

AGIP Telium VSF 320

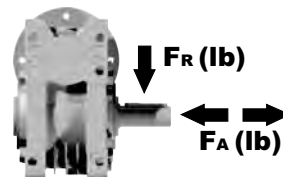
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

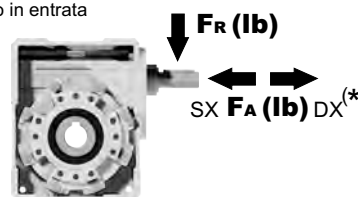
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [lb]	FR [lb]
200	81	404.5
150	90	450
100	103.5	517
75	112.5	562
50	135	674.5
25	157	854
15	180	899

#### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [lb]	FR [lb]
1750	20	101

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

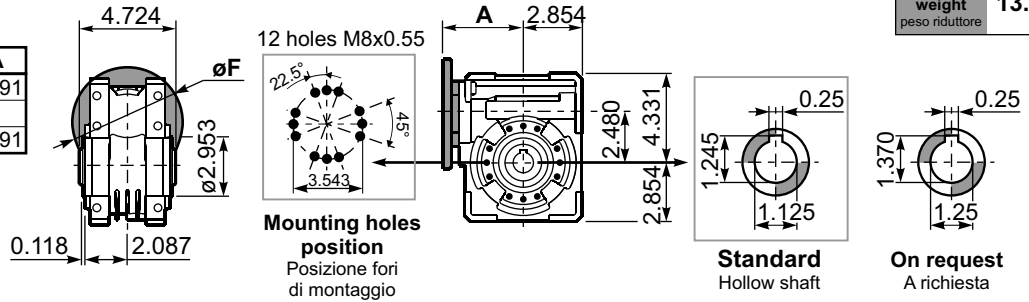
tab. 2

**SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**  
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

**PQ63FB...** Basic wormbox  
Riduttore base

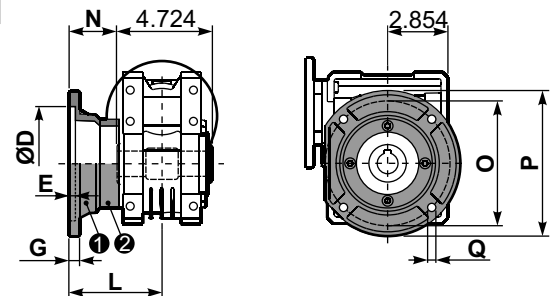
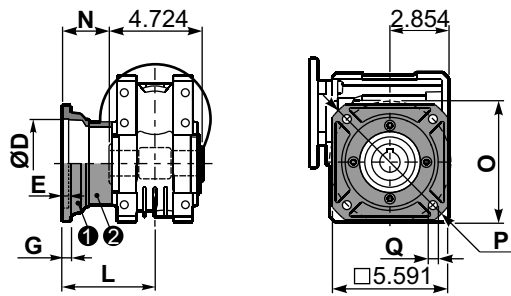
Gearbox weight  
peso riduttore **13.23 lb**

M. flanges	Kit code	øF	A
56C	KU063.4.041	6.50	4.291
143/5 TC	KU063.4.041	6.50	4.291



**PQ63FC...** Square flange  
Flangia quadrata

**PQ63F1...** Round flange  
Flangia rotonda

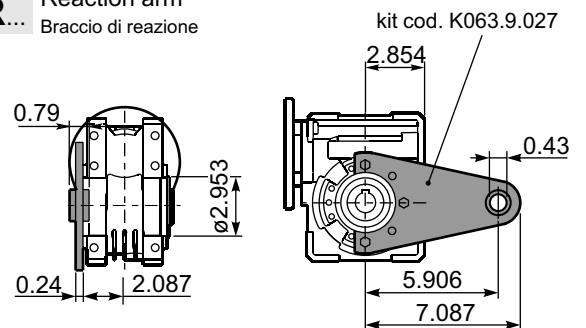
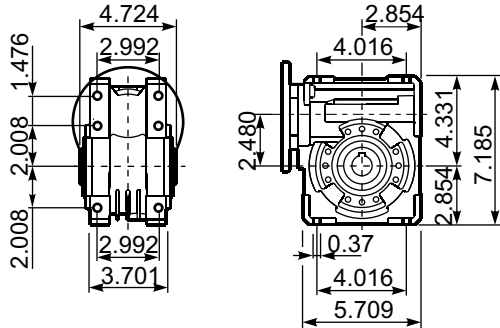


type B	øD	E	G	L	N	O	P	Q	kit code
FC	4.5354 4.5335	0.24	0.47	3.386	1.024	5.906	7.087	0.43	① KQ63.9.010 ② -
FL	4.5354 4.5335	0.24	0.47	4.567	2.205	5.906	7.087	0.43	① KQ63.9.010 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
F1	5.1260 5.1240	0.28	0.51	4.331	1.969	6.496	7.874	0.51	① KS070.9.013 ② -
F2	4.5354 4.5335	0.28	0.51	4.882	2.520	5.906	6.890	0.43	① KS063.9.013 ② -
F3	4.3321 4.3307	0.20	0.43	3.543	1.181	5.118	6.299	0.39	① KS063.9.011 ② -

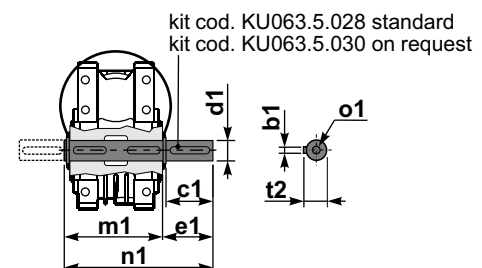
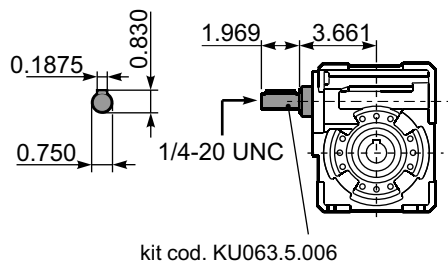
**PQ63FB...** Feet  
Piedini

**PQ63BR...** Reaction arm  
Braccio di reazione



**RQ63FB...** Input shaft  
Albero in entrata

**PQ63.....S...** Single Shaft  
Albero lento semplice



	b1	c1	d1	e1	m1	n1	t2	o1	kit code
Standard	0.25	2.240	1.125	2.437	4.992	7.429	1.23	5/16-18	KU063.5.028
On request	0.25	2.362	1.250	2.559	4.992	7.551	1.36	5/16-18	KU063.5.030

On request : Special Hollow Shafts  
Mozzo Uscita Speciale



On request : Double extended worm shaft  
Vite bisporgente





QUICK SELECTION / Selezione veloce							input speed ( $n_1$ ) = 1750 min <sup>-1</sup>					
Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [HP]	Output torque $M_{2M}$ [lb in]	Service factor f.s.	Nominal power $P_{1R}$ [HP]	Nominal torque $M_{2R}$ [lb in]	Available NEMA motor flanges			Dynamic efficiency  RD	Tooth Module  Mn [mm]	Ratios code 
							W	X	Y			
							56C	143-5TC	182-4TC			
250.0	7	7.5	1664	1.3	9.90	2168	B	B		88	4.23	01
175.0	10	5	1441	1.7	8.40	2390	B	B		80	4.2	02
125.0	14	5	1967	1.3	6.61	2567	B	B		78	4.5	03
87.5	20	3	1707	1.5	4.41	2478	B	B		79	3.4	04
62.5	28	3	2269	1.3	3.91	2921	B	B		75	4.7	06
46.1	38	2	1943	1.5	2.95	2832	B	B		71	3.5	07
33.7	52	1.5	1854	1.3	1.99	2434	B	B		66	2.7	09
26.1	67	1.5	2353	1.0	1.57	2434	B	B		65	2.1	10
18.2	96	1.1	2016	1.0	1.13	2036	B	B		53	1.5	12

**A) Motor Flanges Available**  
Flange Motore Disponibile

**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

**EN** Unit Q85 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox. [For complete documentation please visit our web site.](#)

**I** Il riduttore tipo Q85 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore. [Per la documentazione completa consulta il nostro sito.](#)

**E** El reductor tamaño Q85 se suministra, lubricado de por vida con aceites sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor. [Para documentación completa, consultar nuestra Web.](#)

### LUBRICATION Q85 Oil Quantity 42.33 ounces

**AGIP** Telium VSF 320

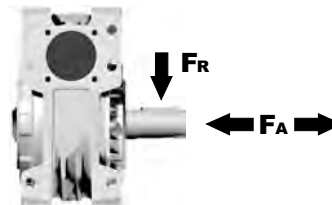
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

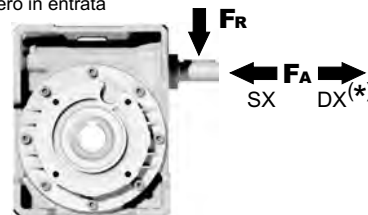
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [lb]	FR [lb]
200	112	562
150	130	652
100	135	674
75	157	787
50	180	899
25	225	1124
15	261	1304

#### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [lb]	FR [lb]
1750	36	182

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

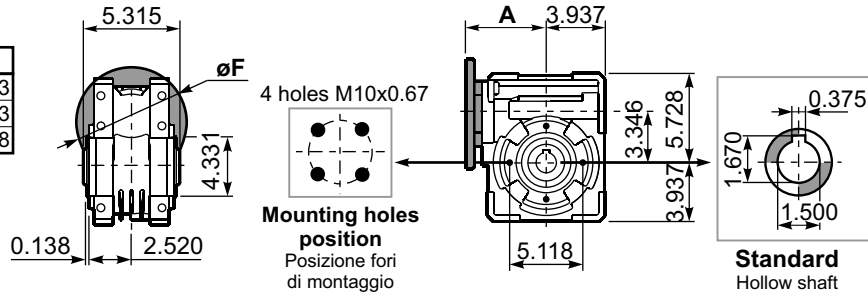
tab. 2

**SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**  
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

**PQ85FB...** Basic wormbox  
Riduttore base

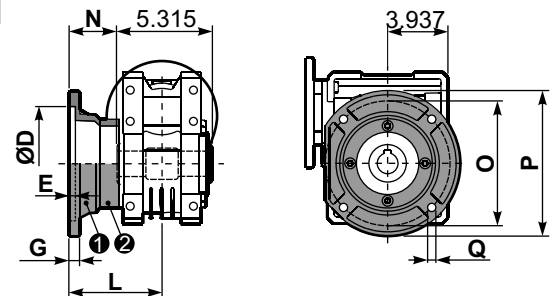
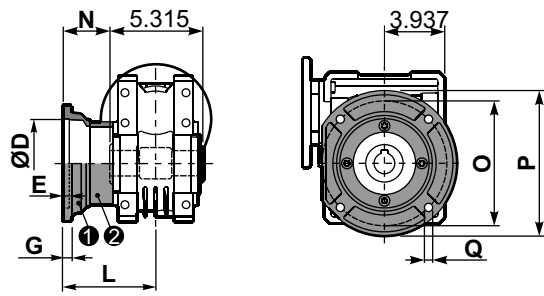
Gearbox weight  
peso riduttore **41.23 lb**

M. flanges	Kit code	øF	A
56C	KU085.4.041	6.50	4.823
143/5 TC	KU085.4.041	6.50	4.823
182/4 TC	KU085.4.042	8.88	5.528



**PQ85FC...** Output flange  
Flangia uscita

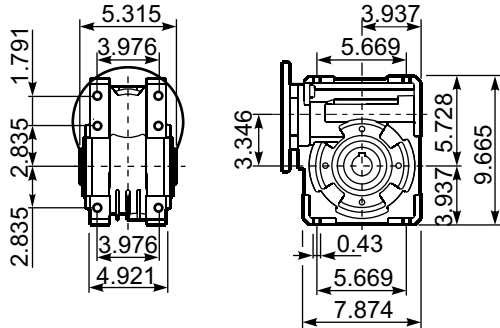
**PQ85F1...** Output flange  
Flangia uscita



type B	øD	E	G	L	N	O	P	Q	kit code
FC	5.9867 5.9843	0.20	0.63	4.252	1.594	6.929	8.071	0.51	① K085.9.010 ② -
FL	5.9867 5.9843	0.20	0.63	5.846	3.189	6.929	8.071	0.51	① K085.9.010 ② K085.0.201

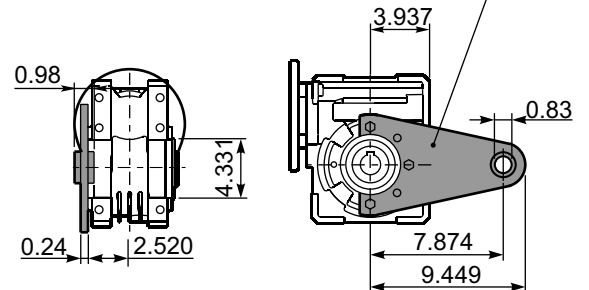
type S	øD	E	G	L	N	O	P	Q	kit code
F1	5.1200 5.1181	0.20	0.51	4.626	1.969	6.496	7.874	0.45	① KS085.9.012 ② -
F2	5.9867 5.9843	0.20	0.59	5.807	3.150	7.087	8.071	0.49	① KS085.9.013 ② -
F4	5.1200 5.1181	0.20	0.51	4.193	1.535	6.496	7.874	0.51	① KS085.9.015 ② -

**PQ85FB...** Feet  
Piedini



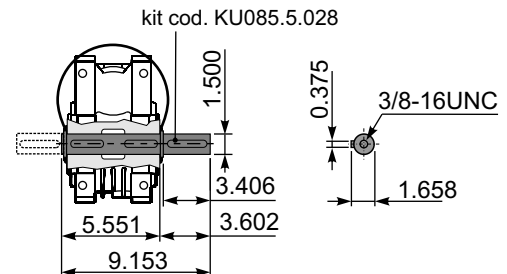
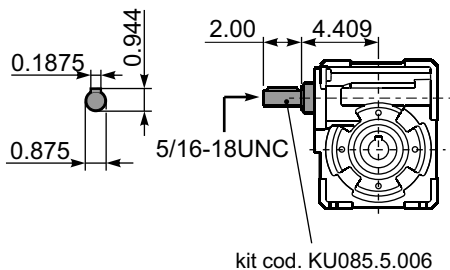
**PQ85BR...** Reaction arm  
Braccio di reazione

kit cod. K085.9.027



**RQ85FB...** Input shaft  
Albero in entrata

**PQ85.....S...** Single Shaft  
Albero lento semplice



On request : Special Hollow Shafts  
Mozzo Uscita Speciale

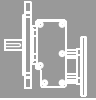
On request : Double extended worm shaft  
Vite bisporgente



# Q45+211A Square - Gear with ratio multiplier

## 443lb in

2D/3D Dimensions  
on request



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1750 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Final ratio $i$	Multiplier ratio $i_{RM}$	Wormbox ratio $i_{WB}$	Motor power $P_{1M}$ [HP]	Output torque $M_{2M}$ [lb in]	Service factor f.s.	Nominal power $P_{1R}$ [HP]	Nominal torque $M_{2R}$ [lb in]	Available NEMA motor flanges	Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
									W 56C			
53.2	32.9	4.7	7	0.5	438	1.0	0.51	443	56C	74	2.2	01
37.2	47	4.7	10	0.33	402	1.1	0.37	443		72	2.2	02
26.6	65.8	4.7	14	0.25	355	1.2	0.32	443		60	2.4	03
17.7	98.7	4.7	21	0.25	507	0.9	0.22	443		57	1.6	04
13.3	132	4.7	28	0.25*	628	0.7	0.18	443		53	2.5	05
10.1	174	4.7	37	0.25*	767	0.6	0.15	443		49	1.8	06
8.1	216	4.7	46	0.25*	915	0.5	0.12	443		47	1.5	07
6.2	282	4.7	60	0.25*	1143	0.4	0.10	443		45	1.2	08
5.3	329	4.7	70	0.25*	1185	0.3	0.07	310		40	1.0	09
3.7	479	4.7	102	0.25*	1554	0.2	0.05	310		36	0.72	10

**A) 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

\* 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  $M_{2R}$

**EN** Units Q45 and 211A are supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. For complete documentation please visit our web site.

	Further available ratios ( $i_{RM}$ )							
		2.05	2.35	2.80	3.38	4.70 standard	6.22	8.29

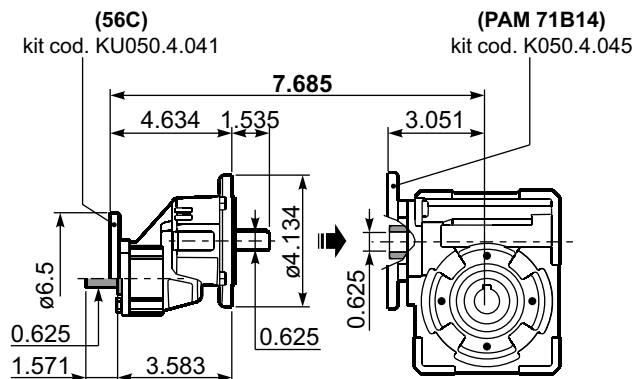
**I** I riduttori tipo Q45 e 211A vengono forniti lubrificati a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. Per la documentazione completa consulta il nostro sito.

Lubrication Oil quantity	1.76 oz.		2.82 oz.
		<b>AGIP</b> Telium VSF 320	

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**E** Los reductores tamaño Q45 y 211A se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. Para documentación completa, consultar nuestra Web.

### Q45 + 211A Basic wormbox Riduttore base



Q45 weight peso Q45	5.07 lb
211A weight peso 511A	3.97 lb

**SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**  
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

# Q50+211A Square - Gear with ratio multiplier

## 708lb in

2D/3D Dimensions  
on request



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1750 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Final ratio $i$	Multiplier ratio $i_{RM}$	Wormbox ratio $i_{WB}$	Motor power $P_{1M}$ [HP]	Output torque $M_{2M}$ [lb in]	Service factor f.s.	Nominal power $P_{1R}$ [HP]	Nominal torque $M_{2R}$ [lb in]	Available NEMA motor flanges	Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
									W 56C			
53.2	32.9	4.7	7	0.5	450	1.4	0.70	620		76	2.5	01
37.2	47.0	4.7	10	0.5	635	1.0	0.49	620		75	2.4	02
26.6	65.8	4.7	14	0.33	540	1.1	0.38	620		69	2.6	03
20.7	84.6	4.7	18	0.33	613	1.2	0.39	708		61	2.0	04
14.3	122	4.7	26	0.25	671	1.1	0.27	708		61	2.7	05
10.3	169	4.7	36	0.25	853	0.8	0.21	708		56	2.1	06
8.7	202	4.7	43	0.25*	892	0.7	0.18	620		49	1.8	07
6.2	282	4.7	60	0.25*	1193	0.5	0.13	620		47	1.3	08
5.5	320	4.7	68	0.25*	1266	0.4	0.11	531		44	1.2	09
4.7	376	4.7	80	0.25*	1354	0.3	0.07	354		40	1	10
3.7	470	4.7	100	0.25*	1524	0.2	0.06	354		36	0.8	11

**A** 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


\* 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  $M_{2R}$

**EN** Units Q50 and 211A are supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. For complete documentation please visit our web site.

**I** I riduttori tipo Q50 e 211A vengono forniti lubrificati a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. Per la documentazione completa consulta il nostro sito.

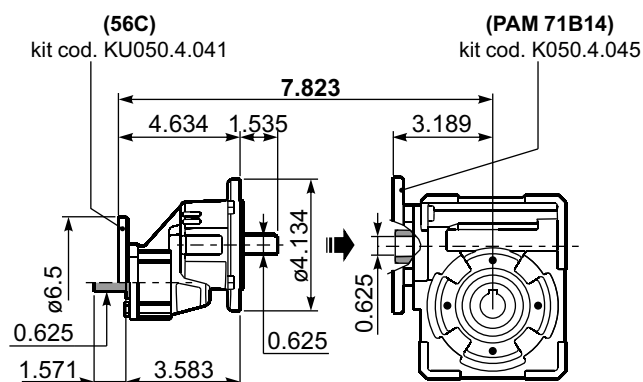
**E** Los reductores tamaño Q50 y 211A se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. Para documentación completa, consultar nuestra Web.

	Further available ratios ( $i_{RM}$ )							
	2.05	2.35	2.80	3.38	4.70 standard	6.22	8.29	9.83

Lubrication Oil quantity	1.76 oz.	4.58 oz.
		
<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320	

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### Q50 + 211A Basic wormbox Riduttore base



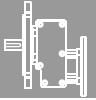
Q50 weight peso Q50	8.40 lb
211A weight peso 211A	3.97 lb

**SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**  
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

# Q63+411A Square - Gear with ratio multiplier

## 1505lb in

2D/3D Dimensions  
on request



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1750 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Final ratio $i$	Multiplier ratio $i_{RM}$	Wormbox ratio $i_{WB}$	Motor power $P_{1M}$ [HP]	Output torque $M_{2M}$ [lb in]	Service factor f.s.	Nominal power $P_{1R}$ [HP]	Nominal torque $M_{2R}$ [lb in]	Available NEMA motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
									W	X			
54.1	32.3	4.62	7	1.5	1328	1.0	1.52	1328	56C	143/5TC	76	3.1	01
37.9	46.2	4.62	10	1	1231	1.1	1.09	1328	56C	143/5TC	74	3.1	02
25.3	69.3	4.62	15	0.75	1367	1.0	0.74	1328	56C	143/5TC	73	3.1	03
19.9	87.8	4.62	19	0.5	1154	1.2	0.58	1328	56C	143/5TC	73	2.6	04
15.8	111	4.62	24	0.5	1418	0.9	0.47	1328	56C	143/5TC	71	2.0	05
12.6	139	4.62	30	0.33	1104	1.4	0.46	1505	56C	143/5TC	67	3.2	06
10.5	166	4.62	36	0.33	1206	1.2	0.42	1505	56C	143/5TC	61	2.7	07
8.4	208	4.62	45	0.33	1458	0.9	0.30	1328	56C	143/5TC	59	2.1	08
5.7	310	4.62	67	0.25	1421	0.9	0.24	1328	56C	143/5TC	51	1.5	09
4.7	370	4.62	80	0.25	1597	0.8	0.21	1328	56C	143/5TC	48	1.3	10
4.0	434	4.62	94	0.25*	1642	0.7	0.17	1106	56C	143/5TC	42	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


\* 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  $M_{2R}$

**EN** Units Q63 and 411A are supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. For complete documentation please visit our web site.

	Further available ratios ( $i_{RM}$ )							
		1.57	2.87	3.29	3.87	4.62 Standard	6.3	8.22

**I** I riduttori tipo Q63 e 411A vengono forniti lubrificati a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. Per la documentazione completa consulta il nostro sito.

**Lubrication Oil quantity**

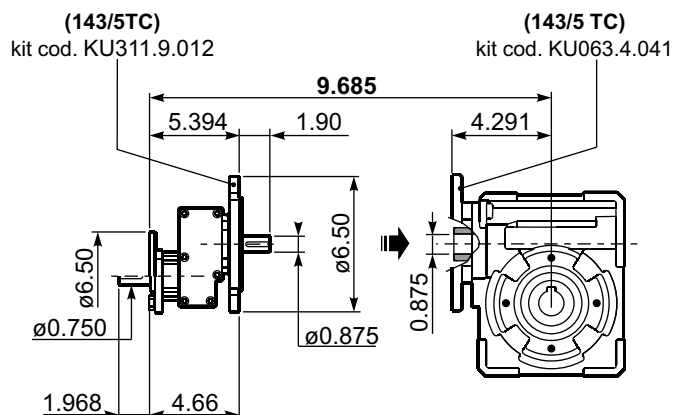
**3.53 oz**  **10.6 oz**

<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**E** Los reductores tamaño Q63 y 411A se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. Para documentación completa, consultar nuestra Web.

### Q63 + 411A Basic wormbox Riduttore base



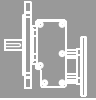
Q63 weight peso Q63	<b>13.23 lb</b>
411A weight peso 411A	<b>7.27 lb</b>

**SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**  
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

# Q85+511A

Square - Gear with ratio multipler  
**3540lb in**

2D/3D Dimensions  
on request



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1750 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Final ratio $i$	Multiplier ratio $i_{RM}$	Wormbox ratio $i_{WB}$	Motor power $P_{1M}$ [HP]	Output torque $M_{2M}$ [lb in]	Service factor f.s.	Nominal power $P_{1R}$ [HP]	Nominal torque $M_{2R}$ [lb in]	Available NEMA motor flanges		Dynamic efficiency  RD	Tooth Module  Mn [mm]	Ratios code
									X	Y			
									143/5TC	182/4TC			
47.4	36.9	5.27	7	3	3030	1.0	3.11	3098			76.0	4.3	01
33.2	52.7	5.27	10	2	2809	1.1	2.23	3098			74.0	4.2	02
23.7	73.8	5.27	14	1.5	2911	1.1	1.71	3275			73.0	4.5	03
16.6	105.4	5.27	20	1	2771	1.2	1.23	3363			73.0	3.4	04
11.9	148	5.27	28	1	3774	0.9	0.95	3540			71.0	4.7	05
8.7	200	5.27	38	0.75	3407	1.0	0.79	3540			63.0	3.5	06
6.4	274	5.27	52	0.75	3923	0.9	0.65	3363			53.0	2.7	07
5.0	353	5.27	67	0.5	2861	0.9	0.47	2655			45.0	2.1	08
3.5	506	5.27	96	0.33	2405	1.1	0.37	2655			40.0	1.5	09

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

**EN** Units Q85 and 511A are supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. For complete documentation please visit our web site.

**I** I riduttori tipo Q85 e 511A vengono forniti lubrificati a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. Per la documentazione completa consulta il nostro sito.

**E** Los reductores tamaño Q85 y 511A se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. Para documentación completa, consultar nuestra Web.

Other available ratios ( $i_{RM}$ )							
	1.30	2.45	3.31	4.31	5.27 Standard	7.63	10.50

**Lubrication Oil quantity**

8.82 oz →      ← 42.33 oz

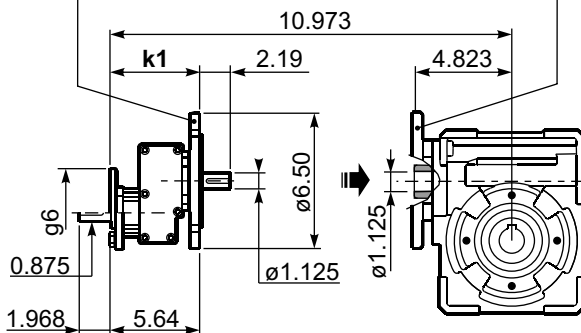
<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### Q85 + 511A Basic wormbox Riduttore base

(143/5TC)  
kit cod. KU511.9.012

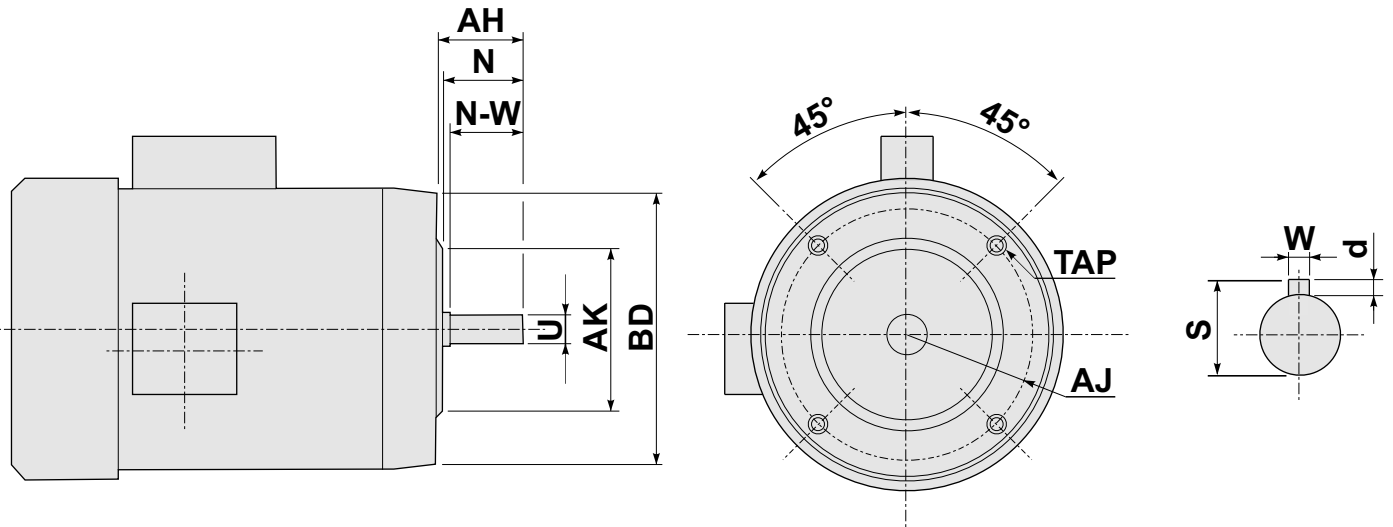
(143/5 TC)  
kit cod. KU085.4.041



Nema flange	k1	g6	kit code
143/5TC	6.15	6.50	KU085.4.041
182/4TC	6.84	8.88	KU085.4.042

Q85 weight peso Q85	<b>41.23 lb</b>
511A weight peso 511A	<b>12.80 lb</b>

**SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**  
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.



NEMA SHAFT AND KEYWAY DIMENSIONS

NEMA SHAFT (U)	KEYWAY DIMENSIONS (W x d) (S)	
	(W x d)	(S)
5/8	3/16 x 3/32	0.709
7/8	3/16 x 3/32	0.964
1 1/8	1/4 x 1/8	1.241
1 3/8	5/16 x 5/32	1.518
1 5/8	3/8 x 3/16	1.796

The condensed dimensions shown on these pages are for general reference only and are not for construction. **Certified drawings of all rating are available for construction purposes.**

NEMA DIMENSIONS

Nema Frame	N	U	N-W	AH	AJ	AK	BD	TAP	KEY
S56 56	1 15/16	5/8	1 7/8	2 1/16	5 7/8	4 1/2	6 1/2	3/8-16	3/16
143T 145T	2 3/8	7/8	2 1/4	2 1/8	5 7/8	4 1/2	6 1/2	3/8-16	3/16
182T 184T	2 7/8	1 1/8	2 3/4	2 5/8	7 1/4	8 1/2	8 7/8	1/2-13	1/4

**Please Read Carefully**

The following WARNING and CAUTION information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your product.

Read ALL instructions prior to operating reducer. Injury to personnel or reducer failure may be caused by improper installation, maintenance or operation.

**WARNING:**

- Written authorization is required to operate or use reducers in man lift or people moving devices.
- Check to make sure that certain applications do not exceed the allowable load capacities published in the current catalog.
- Buyer shall be solely responsible for determining the adequacy of the product for any and all uses to which Buyer shall apply the product. The application by Buyer shall not be subject to any implied warranty of fitness for a particular purpose.
- For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.
- Hot oil and reducers can cause severe burns. Use extreme care when removing lubrication plugs and vents.
- Make certain that the power supply is disconnected before attempting to service or remove any components. Lock out the power supply and tag it to prevent unexpected application power.
- Reducers are not to be considered fail safe or self-locking devices. If these features are required, a properly sized, independent holding device should be utilized. Reducers should not be used as a brake.
- Any brakes that are used in conjunction with a reducer must be sized or positioned in such a way so as to not subject the reducer to loads beyond the catalog rating.
- Lifting supports including eyebolts are to be used for vertically lifting the gearbox only and not other associated attachments or motors.
- Use of an oil with an EP additive on units with backstops may prevent proper operation of the backstop. Injury to personnel, damage to the reducer or other equipment may result.
- Overhung loads subject shaft bearings and shafts to stress which may cause premature bearing failure and or shaft breakage from bending fatigue, if not sized properly.

**SELLING CONDITIONS**

Warranty for manufacturing defects will expire one-year the invoicing date. Hydro-Mec will replace or repair defective parts but will not accept any further changes for direct or indirect damages of any kind. The warranty will become null and void if repairs or changes are carried out without our prior written authorization.

**Our company will not be responsible for any direct or indirect damages, caused by a wrong use of the products or for not observing the catalogue/web indication**

**Leggere attentamente**

Le seguenti raccomandazioni sono fondamentali per la vostra protezione e per garantirvi molti anni di sicuro funzionamento del vostro prodotto senza alcun problema.

Leggere attentamente tutte le istruzioni prima di azionare il riduttore. L'inappropriata installazione, manutenzione o funzionamento del riduttore può causare incidenti al personale addetto e danni al riduttore stesso.

**ATTENZIONE!**

- E' richiesta autorizzazione scritta per azionare riduttori in ascensori o dispositivi per il movimento delle persone.
- Controllare che alcune applicazioni non eccedano la massima capacità di carico ammessa pubblicata in questo catalogo.
- L'acquirente è l'unico responsabile per la determinazione dell'adeguatezza del prodotto per qualcuna o tutte le utilizzazioni che l'acquirente stesso farà del riduttore. L'applicazione dell'acquirente non potrà essere soggetta ad alcuna implicita garanzia di montaggio per uno scopo particolare.
- Per ragioni di sicurezza l'acquirente dovrà provvedere a porre protezioni adeguate su tutta la lunghezza dell'albero a tutti gli organi in movimento. L'utilizzatore è responsabile del controllo di tutti i codici di sicurezza e la predisposizione di protezioni adeguate. In assenza di tali precauzioni si possono verificare incidenti alle persone e danni agli apparati.
- Olio e riduttori bollenti possono causare gravi ustioni. Usare estrema cautela nella rimozione dei tappi e delle ventole.
- Assicurarsi che la corrente di alimentazione sia scollegata prima di riparare o rimuovere alcun componente. Chiudere l'alimentazione e contrassegnare tale operazione per evitare accensioni accidentali.
- I riduttori non devono essere considerati esenti da guasti o a bloccaggio automatico. Se sono indispensabili queste caratteristiche, deve essere utilizzato un dispositivo indipendente della dimensione adatta. I riduttori non devono essere utilizzati come freni.
- Qualsiasi freno sia utilizzato insieme al riduttore deve essere della giusta grandezza e posizionato in modo da non causare carichi eccessivi non previsti dai dati forniti nel catalogo.
- I dispositivi di sollevamento come le golfare devono essere usati solo per sollevare verticalmente il riduttore e non altri dispositivi associati o motori.
- L'utilizzo di un olio con un additivo EP su gruppi provvisti di dispositivo di arresto possono inficiare l'uso corretto del freno e provocare danni alle persone, alle cose ed al riduttore stesso nonché ad altri apparecchi.
- I Carichi sospesi assoggettano i cuscinetti della vite e la vite stessa a sollecitazioni che possono causare, se non adeguatamente dimensionati, l'usura prematura dei cuscinetti e/o la rottura della vite a causa della resistenza alla flessione.

**CONDIZIONI DI VENDITA**

La garanzia relativa a difetti di costruzione ha la durata di un anno dalla data di fatturazione della merce. Tale garanzia comporta per Hydro-mec l'onere della sostituzione o riparazione delle parti difettose ma non ammette ulteriori addebiti per eventuali danni diretti o indiretti di qualsiasi natura.

La garanzia decade nel caso in cui siano state eseguite riparazioni o apportate modifiche senza nostro consenso scritto.

**La nostra ditta non si ritiene responsabile per eventuali danni diretti o indiretti derivanti da un uso improprio dei prodotti e dalla mancata osservanza delle indicazioni riportate a catalogo o web..**

# **HYDRO-MEC** *A modern production of Modular products*



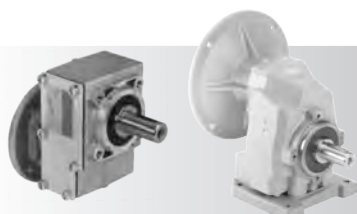
Worm gearboxes  
Rid. a vite senza fine



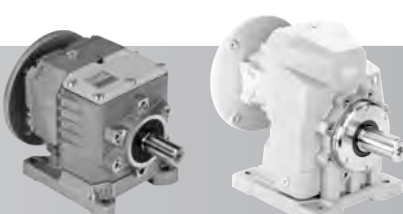
S series square worm gearboxes  
Rid. a vite senza fine quadro serie S



Stainless steel worm gearboxes  
Rid. a vite senza fine Inox



One step gearboxes  
Riduttori ad uno stadio



Coaxial gearboxes  
Riduttori coassiali



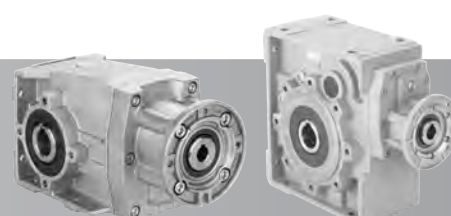
Stainless steel coaxial gearboxes  
Riduttori coassiali Inox



Shaft mounted gearboxes  
Riduttori pendolari



Shaft mounted gearboxes  
Riduttori pendolari



Helical bevel gearboxes  
Rid. a coppia conica

## ***Distributed From:***

**HYDRO-MEC**

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Made in Italy



\*CT- VFP- Q- HM12\*

