



# REDUCTOR SINFIN CORONA MODULAR

**Suministros Industriales del Tajo S.A.**

C/ del Río Jarama 52 - 45007, Toledo - Spain

Tel.: 925 23 22 00 - Fax: 925 23 21 47

Email: [sitasa@sitasa.com](mailto:sitasa@sitasa.com)

[www.sitasa.com](http://www.sitasa.com)

# Worm gearboxes

## 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.

### Flange

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

### 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.

### Premium, high temperature

Nitrile® output seals

### Bronze alloy worm gears.

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

### Over-size 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

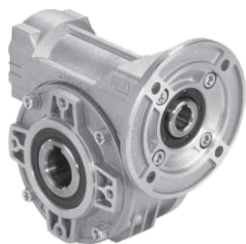


vent free



# Specific type datasheet on page...

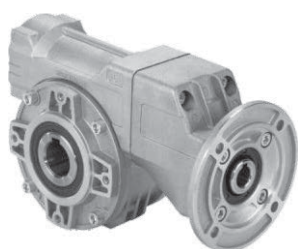
1



Types / Tipi /  
Tipen / Types /  
Tipos →

On page / A pagina / Auf Seite / À la page / En la página

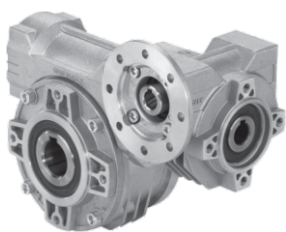
1-5	1-7	1-9	1-11	1-13	1-15	1-17
<b>030</b> 21Nm	<b>045</b> 41Nm	<b>050</b> 72Nm	<b>063</b> 147Nm	<b>63A</b> 191Nm	<b>085</b> 347Nm	<b>110</b> 651Nm



Types / Tipi /  
Tipen / Types /  
Tipos →

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1-19	1-21	1-23	1-25	1-27	1-29
<b>P45</b> 55Nm	<b>P50</b> 88Nm	<b>P63</b> 187Nm	<b>P6A</b> 218Nm	<b>P85</b> 440Nm	<b>P10</b> 803Nm



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Tipen / Types /  
Tipos →

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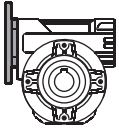
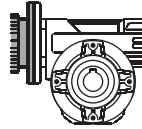
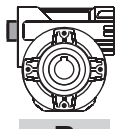
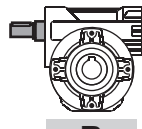
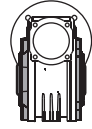
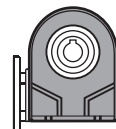
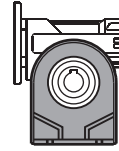
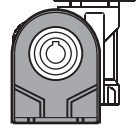
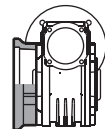
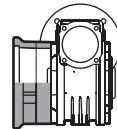
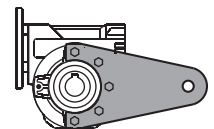
1-31	1-33	1-35	1-37	1-39	1-41	1-43	1-45	1-47
<b>303</b> 35Nm	<b>453</b> 69Nm	<b>503</b> 109Nm	<b>633</b> 230Nm	<b>634</b> 265Nm	<b>6A3</b> 290Nm	<b>6A4</b> 304Nm	<b>854</b> 518Nm	<b>115</b> 978Nm

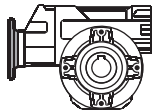
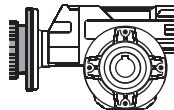
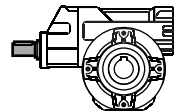
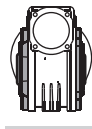
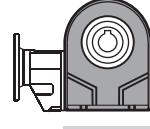
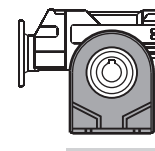
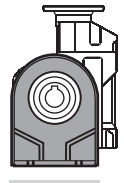
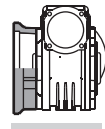
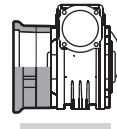
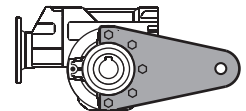
Type - Tipo - Typ  
 Type - Tipo

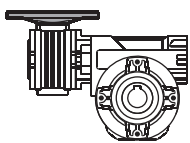
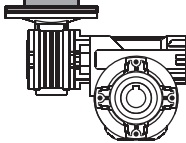
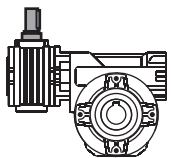
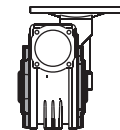
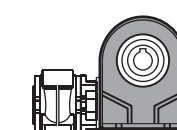
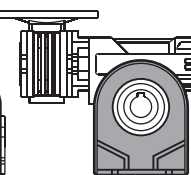
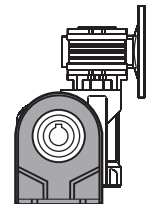
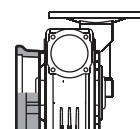
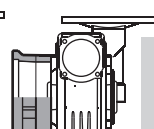
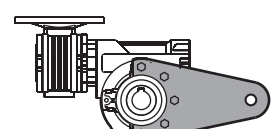
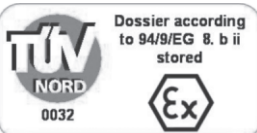
 Size - Grandezza  
 Grösse - Taille  
 Tomoño

 Mounting - Montaggio - Montage Fixation  
 Fixation - Tipo de montaje

**P**
**045**
**PA**
**Worm gearboxes**

 Riduttori a vite senza fine  
 Schneckengetriebe  
 Reducteurs a vis sans fin  
 Reductores de corona sin fin

**P**

**M**

**B**

**R**
**030**  
**045**  
**050**  
**063**  
**63A**  
**085**  
**110**

**FB**

**PB**

**PA**

**PV**

**FC**

**FL**
**F1**  
**F2**  
**F3**  
**F4**

**BR**
**Worm gearboxes with primary reduction**

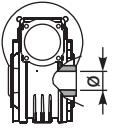
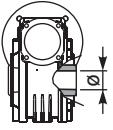
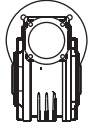
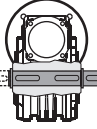
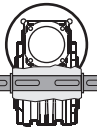
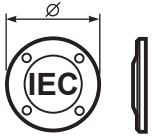




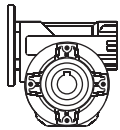

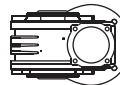
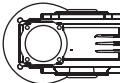
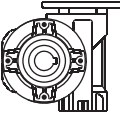
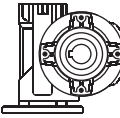
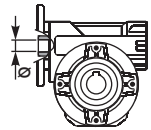
 Riduttori a vite senza fine con precoppia  
 Schneckengetriebe mit stirradstufe am Eintrieb  
 Reducteurs a vis sans fin avec pré-réduction  
 Reductores corona sin fin con prereducora de engranajes

**P**

**M**

**R**
**P45**  
**P50**  
**P63**  
**P6A**  
**P85**  
**P10**

**FB**

**PB**

**PA**

**PV**

**FC**

**FL**
**F1**  
**F2**  
**F3**  
**F4**

**BR**
**Combined worm gearboxes**

 Riduttori a vite senza fine combinati  
 Schneckengetriebekombinationen  
 Reducteurs a double train de vis sans fin  
 Reductores combinados corona sin fin

**P**

**M**

**R**
**303**  
**453**  
**503**  
**633**  
**634**  
**6A3**  
**6A4**  
**854**  
**115**

**FB**

**PB**

**PA**

**PV**

**FC**

**FL**
**F1**  
**F2**  
**F3**  
**F4**

**BR**


On request we can deliver our products according to the ATEX  
 A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
 Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
 Sur demande nos produits peuvent se conformer à la réglementation ATEX  
 A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.



**CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN**

Ratio Rapporto Untersetzung Reduction Relación	Hub Mozzo corona Hohlwelle Arbre creux Nucleo corona	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje solida	Motor size Grandezza motore Motor Grösse Grandeur moteur Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte a bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Reduced Input bore Foro entrata ridotto Reduzierte Eingangshohlwelle Trou d'entree de diametre reduit Eje hueco de entrada reducido	Mountin position Esecuzione montaggio Einbaulage Exécution de montage Posición de montaje
<b>10</b>	<b>C</b>	<b>Ø</b>	<b>-Q</b>	<b>B</b>	<b>B3</b>	<b>-</b>	<b>---</b>
See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir tableau données techniques Ver tabla datos técnicos	 <b>C</b> STANDARD 030 ⇨ Ø14 045 ⇨ Ø18 050 ⇨ Ø25 063 ⇨ Ø25 63A ⇨ Ø28 085 ⇨ Ø35 110 ⇨ Ø42  <b>I</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox  Special series Serie Speciale  <b>S</b> 045 ⇨ Ø19 050 ⇨ Ø24  <b>X</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox   <b>U</b> INCH 045 ⇨ Ø0.750" 050 ⇨ Ø1.000" 063 ⇨ Ø1.125" 085 ⇨ Ø1.500"	 <b>Ø</b>   <b>S</b>   <b>D</b>	 <b>-M</b> without flange Senza flangia  B5 <b>-A=56</b> (Ø120) <b>-B=63</b> (Ø140) <b>-C=71</b> (Ø160) <b>-D=80</b> (Ø200) <b>-E=90</b> (Ø200) <b>-F=100+112</b> (Ø250) <b>-G=132</b> (Ø300)  B14 <b>-O=56</b> (Ø80) <b>-P=63</b> (Ø90) <b>-Q=71</b> (Ø105) <b>-R=80</b> (Ø120) <b>-T=90</b> (Ø140) <b>-U=100+112</b> (Ø160) <b>-V=132</b> (Ø200)  <b>-0=Type R</b> <b>-S=Type R</b> S series	 <b>A</b>   <b>B</b> STANDARD   <b>C</b>   <b>D</b>	 <b>B3</b>   <b>B8</b>   <b>B6</b>   <b>B7</b>   <b>V5</b>   <b>V6</b>	 <b>-</b> Nothing indication standard bore  Nessuna indicazione standard bore  <b>P</b> Input bore reduced one size  Foro entrata ridotto di una misura  Ex. Input Flange 71 B14 Standard Ø14 Reduced Ø11  <b>Q</b> Input bore reduced two sizes  Due grandezze ridutte foro entrata  Ex. Input Flange 71 B14 Standard Ø14 Reduced Ø9	<b>Only for combined units</b> See technical data table  Solo per i riduttori combinati Vedi tabella dati tecnici.  Ausführungen für Getriebekombinationen it  Uniquement pour combinés. Voir tableau données techniques  Sólo para combinados ver tabla datos técnicos

1

**POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA**

Lifting / sollevamento / hubantriebe / levage / elevación

$$P \text{ [KW]} = \frac{M \text{ [Kg]} \cdot g \text{ [9.81]} \cdot v \text{ [m / s]}}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P \text{ [KW]} = \frac{M \text{ [Nm]} \cdot n \text{ [rpm]}}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P \text{ [KW]} = \frac{F \text{ [N]} \cdot v \text{ [m / s]}}{1000}$$

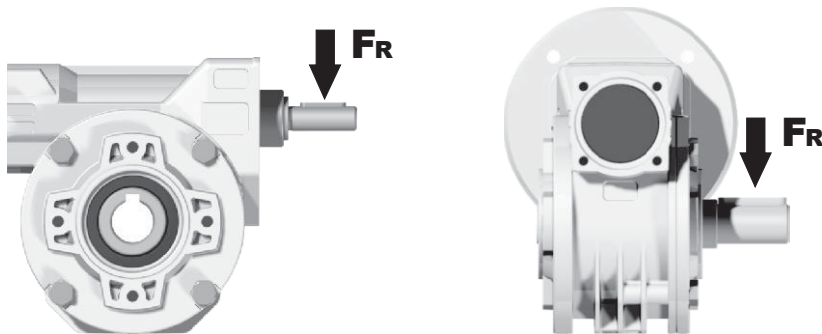
**TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR**

$$M \text{ [Nm]} = \frac{9550 \cdot P \text{ [KW]}}{n \text{ [rpm]}}$$

$$M \text{ [lb in]} = \frac{63030 \cdot P \text{ [HP]}}{n \text{ [rpm]}}$$

**RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL**

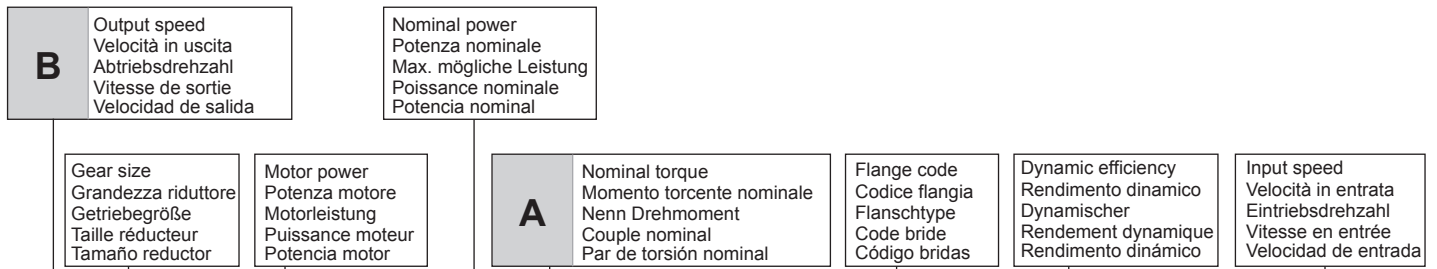
- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



	$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$	$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$
<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor



**045 Rightangle - Gear 41Nm**  
Rating - Aluminum WORM GEARBOXES

**QUICK SELECTION / Selezione veloce** input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
200	7	0.37	14	2.2	0.80	30	B		B-C	B-C		80	2.2	01
140	10	0.37	20	1.5	0.57	30	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.1	0.41	30	B		B-C	B-C		77	2.4	03



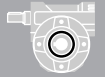
**fs**

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

**D**

<b>B)</b>	Motor flange available Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles	Mounting with reduction ring Montaggio con boccolla di riduzione Reduzierhülsen Montage avec douille de réduction Montaje con casquillo de reducción	
<b>C)</b>	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor		
<b>B)</b>	Available without reduction bushes Disponibile anche senza boccolla Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien sin casquillo		

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	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	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	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)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



### QUICK SELECTION / Selezione veloce

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
280	<b>5</b>	0.18	5	3.3	<b>0.60</b>	17	B		B-C		82	1.26	09
200	<b>7</b>	0.18	7	2.4	<b>0.44</b>	17	B		B-C		80	1.44	01
140	<b>10</b>	0.18	10	1.8	<b>0.32</b>	17	B		B-C		78	1.44	02
93	<b>15</b>	0.18	13	1.4	<b>0.25</b>	19	B		B-C		73	1.44	03
70	<b>20</b>	0.18	17	1.1	<b>0.20</b>	19	B		B-C		70	1.09	04
47	<b>30</b>	0.12	15	1.4	<b>0.17</b>	21	B		B-C		62	1.44	05
35	<b>40</b>	0.12	19	1.1	<b>0.13</b>	20	B		B-C		57	1.09	06
23	<b>61</b>	0.09	19	1.1	<b>0.10</b>	20	B		B-C		50	0.72	07
17.5	<b>80</b>	0.09	16	1.0	<b>0.06</b>	16	B		B-C		48	0.56	08

**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

**EN** Unit **030** 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.

**I** Il riduttore tipo **030** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **030** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **030** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **030** 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.

### LUBRICATION 030 Oil Quantity 0.03 Lt.

**AGIP** Telium VSF 320

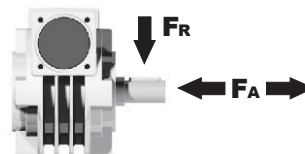
**SHELL** Omala S4 WE 320

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

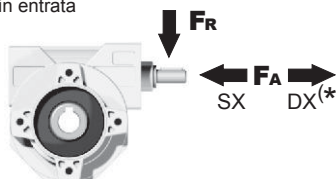
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [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 <sup>-1</sup> ]	FA [N]	FR [N]
1400	20	100

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

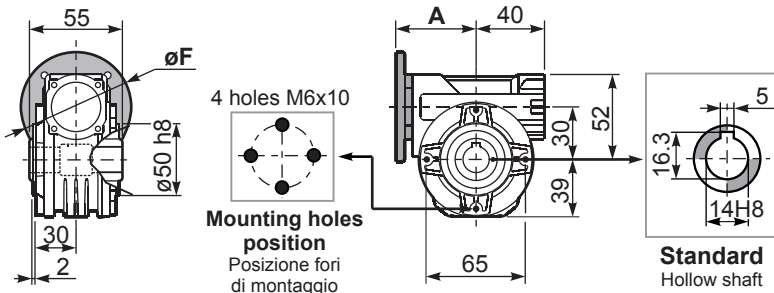
**tab. 2**

3D dimensions on the Web

**P030FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **1.05 kg**

M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5

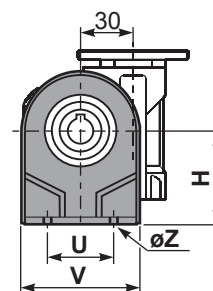
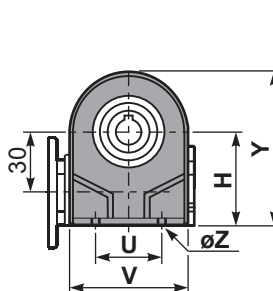
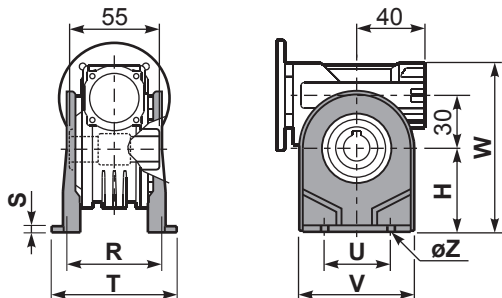


Standard  
Hollow shaft

**P030PA...** Feet  
Piedini

**P030PB...** Feet  
Piedini

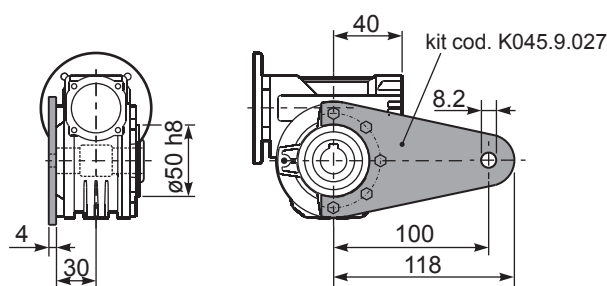
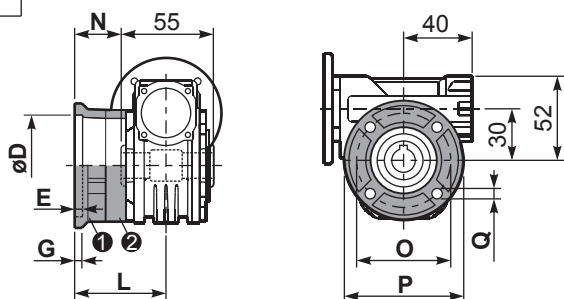
**P030PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	55	66	3	87	50	78	94	107	ø6.5	K030.9.022
type S	52	66	3	87	52	90	91	104	ø6.5	KS030.9.023

**P030FC...** Output flange  
Flangia uscita

**P030BR...** Reaction arm  
Braccio di reazione



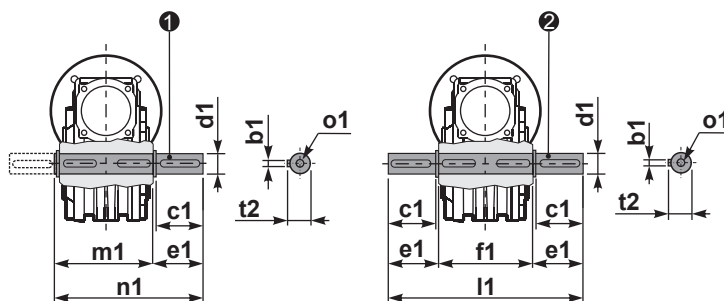
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	50 <sup>+0.15</sup> / <sub>+0.05</sub>	6	6	50.5	23	68	80	7	① K030.9.010 ② -
<b>FL</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	6	6	55.5	28	87	110	8.5	① K045.9.010 ② -

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	40 <sup>+0.15</sup> / <sub>+0.10</sub>	3.5	5.5	49	21.5	56	80	6.5	① KS030.9.012 ② -

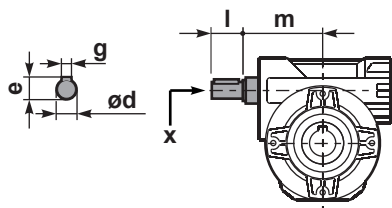
**P030.....S...** Single Shaft  
Albero lento semplice

**P030.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K030.5.028 type B    ② kit cod. K030.5.029 type B

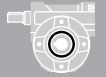
**R030FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	K030.5.006 PAM63
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 <sup>-0.005</sup> / <sub>-0.020</sub>	35.5	55	126	59	94.5	16	M5x14
type S	-	-	-	-	-	-	-	-	-	-





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
200	<b>7</b>	0.37	14	2.2	<b>0.80</b>	<b>30</b>	<b>B</b>		B-C	B-C		80	2.2	01
140	<b>10</b>	0.37	20	1.5	<b>0.57</b>	<b>30</b>	<b>B</b>		B-C	B-C		79	2.2	02
100	<b>14</b>	0.37	27	1.1	<b>0.41</b>	<b>30</b>	<b>B</b>		B-C	B-C		77	2.4	03
67	<b>21</b>	0.37	36	1.2	<b>0.43</b>	<b>41</b>	<b>B</b>		B-C	B-C		67	1.6	04
50	<b>28</b>	0.25	31	1.3	<b>0.33</b>	<b>41</b>	<b>B</b>		B-C	B-C		65	2.5	05
38	<b>37</b>	0.25	40	1.0	<b>0.26</b>	<b>41</b>	<b>B</b>		B-C	B-C		63	1.8	06
30	<b>46</b>	0.25	46	0.9	<b>0.22</b>	<b>41</b>	<b>B</b>		B-C	B-C		59	1.5	07
23	<b>60</b>	0.18	41	1.0	<b>0.18</b>	<b>41</b>	<b>B</b>		B-C	B-C		56	1.2	08
20	<b>70</b>	0.12	31	1.0	<b>0.12</b>	<b>30</b>	<b>B</b>		B-C	B-C		54	1.0	09
13.7	<b>102</b>	0.09	31	1.0	<b>0.09</b>	<b>29</b>	<b>B</b>		B-C	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

**EN** Unit **045** 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.

**I** Il riduttore tipo **045** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **045** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **045** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **045** 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.

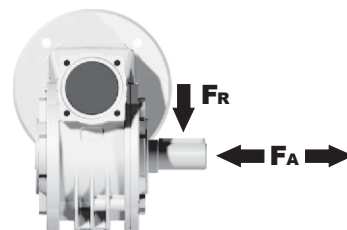
### LUBRICATION 045 Oil Quantity 0.09 Lt.

**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

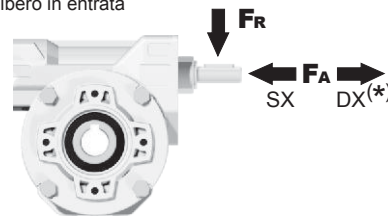
### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>200</b>	180	900
<b>150</b>	200	1000
<b>100</b>	220	1100
<b>75</b>	240	1200
<b>50</b>	260	1400
<b>25</b>	300	1800
<b>15</b>	400	2000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	42	210

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

**tab. 2**

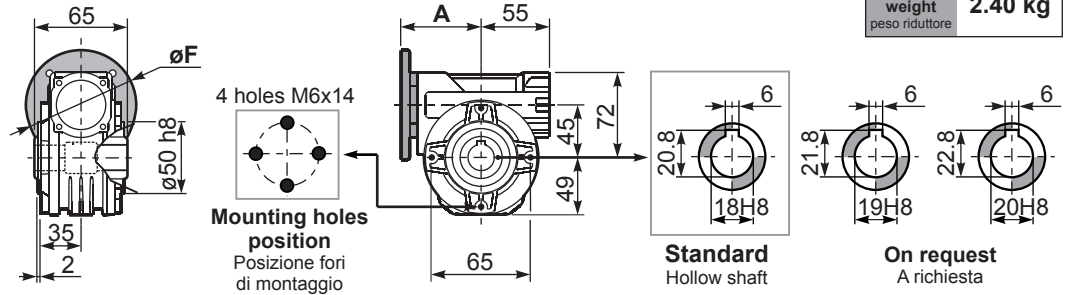
Rightangle - Gear  
**41Nm 045**

3D dimensions on the Web

**P045FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **2.40 kg**

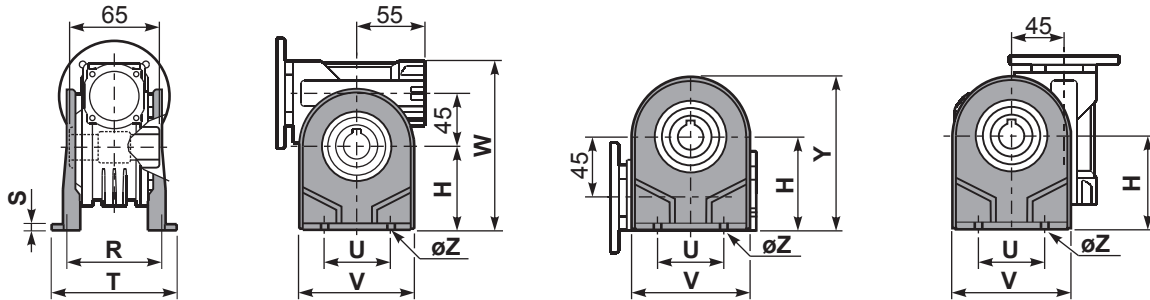
M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	74
<b>71B5</b>	K050.4.042	160	71.5
<b>56B14</b>	KC40.4.049	80	71.5
<b>63B14</b>	K050.4.047	90	74
<b>71B14</b>	K050.4.045	105	71.5



**P045PA...** Feet  
Piedini

**P045PB...** Feet  
Piedini

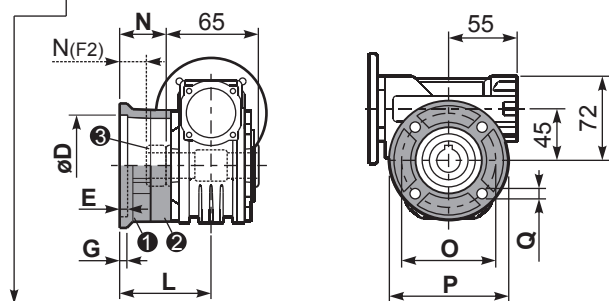
**P045PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	72	81	3	100	52	98	121	144	ø10.5	K045.9.022
type S	71	84	8	100	70	90	120	143	ø8	KS045.9.023

**P045FC...** Output flange  
Flangia uscita

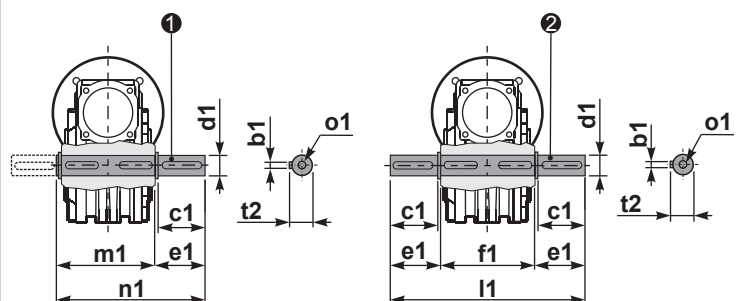
**P045BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	60.5	28	87	110	8.5	① K045.9.010 ② -
<b>FL</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	90.5	58	87	110	8.5	① K045.9.010 ② K045.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	95 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	73.5	41	115	140	9	① KS045.9.013 ② -
<b>F2</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	60.5	19	87	110	8.5	① KS045.9.010 ② S045.0.204
<b>F3</b>	80 <sup>+0.15</sup> / <sub>+0.10</sub>	3	8	51.5	19	100	120	9	① KS045.9.014 ② -

**P045.....S...** Single Shaft  
Albero lento semplice

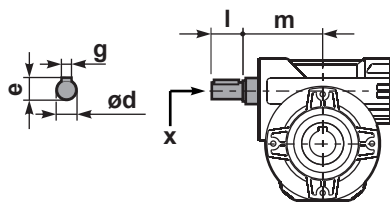
**P045.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

② kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

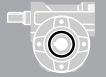
**R045FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① K045.5.006 PAM71 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	ø1
type B	6	32	18 <sup>-0.005</sup> / <sub>-0.020</sub>	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> / <sub>-0.020</sub>	58.8	65	182	70	128.5	21.5	M8x20





**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-D	-O	-P	-Q	-R			
							63	71	80	56	63	71	80			
200	<b>7</b>	0.75	29	1.9	<b>1.5</b>	<b>57</b>	B	B			B-C	B		82	2.5	01
140	<b>10</b>	0.75	41	1.5	<b>1.1</b>	<b>62</b>	B	B			B-C	B		80	2.4	02
100	<b>14</b>	0.75	57	1.2	<b>0.90</b>	<b>68</b>	B	B			B-C	B		79	2.6	03
78	<b>18</b>	0.55	51	1.2	<b>0.67</b>	<b>62</b>	B	B			B-C	B		75	2.0	04
54	<b>26</b>	0.55	67	1.0	<b>0.54</b>	<b>66</b>	B	B			B-C	B		69	2.7	05
47	<b>30</b>	0.55	79	0.9	<b>0.50</b>	<b>72</b>	B	B			B-C	B		70	2.5	12
39	<b>36</b>	0.37	63	1.2	<b>0.43</b>	<b>72</b>	B			B-C	B-C			69	2.1	06
33	<b>43</b>	0.37	72	1.0	<b>0.35</b>	<b>68</b>	B			B-C	B-C			66	1.8	07
23	<b>60</b>	0.25	59	1.0	<b>0.26</b>	<b>62</b>	B			B-C	B-C			58	1.3	08
21	<b>68</b>	0.25	66	0.9	<b>0.22</b>	<b>58</b>	B			B-C	B-C			57	1.2	09
17.5	<b>80</b>	0.18	53	1.1	<b>0.19</b>	<b>57</b>	B			B-C	B-C			54	1.0	10
14	<b>100</b>	0.12	41	1.3	<b>0.15</b>	<b>51</b>	B			B-C	B-C			50	0.8	11

**Motor Flanges Available** Flange Motore Disponibili  
**Supplied with Reduction Bushing** Fornito con Bussola di Riduzione  
**Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione  
**Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **050** 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.

**I** Il riduttore tipo **050** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **050** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **050** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **050** 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.

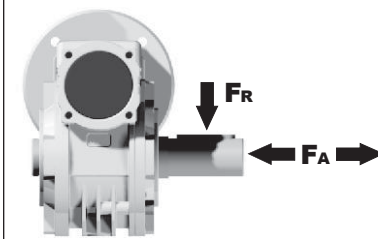
**LUBRICATION 050 Oil Quantity 0.14 Lt.**

**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

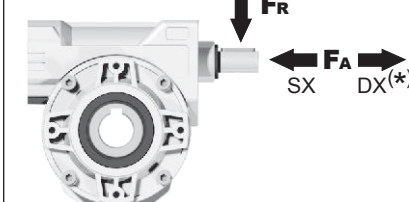
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [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 <sup>-1</sup> ]	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**

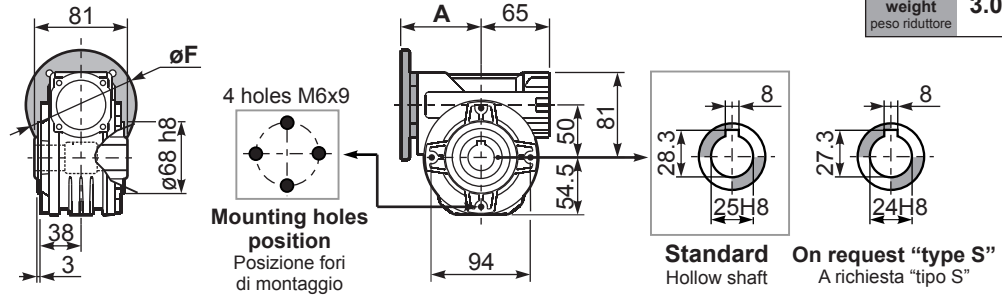
Rightangle - Gear  
**72Nm 050**

3D dimensions on the Web

**P050FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **3.00 kg**

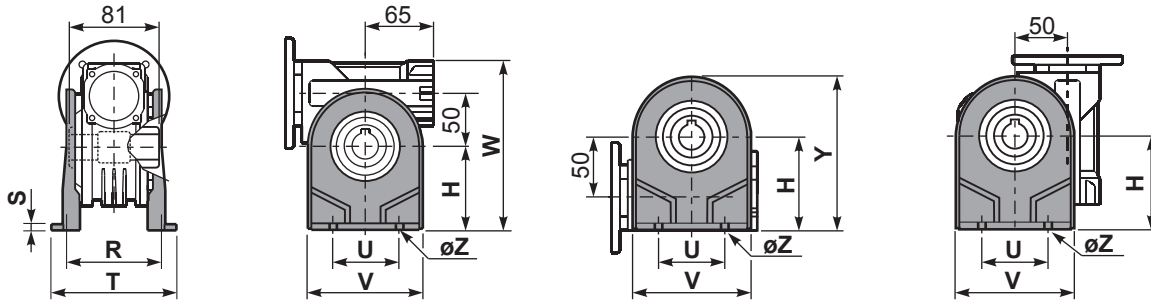
M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	78.5
<b>71B5</b>	K050.4.042	160	76
<b>80B5</b>	K050.4.043	200	76.5
<b>56B14</b>	KC40.4.049	80	76
<b>63B14</b>	K050.4.047	90	78.5
<b>71B14</b>	K050.4.045	105	76
<b>80B14</b>	K050.4.046	120	76.5



**P050PA...** Feet  
Piedini

**P050PB...** Feet  
Piedini

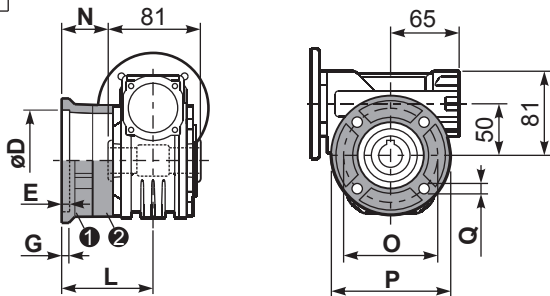
**P050PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	82	98.5	3.5	123	63	113	138.5	163	ø10.5	K050.9.022
type S	85	96	10	114	85	110	139.5	166	ø10	KS050.9.023

**P050FC...** Output flange  
Flangia uscita

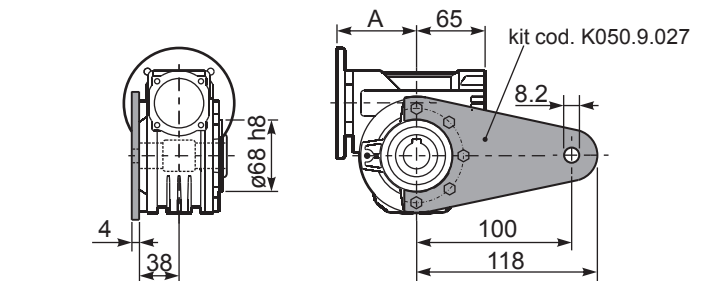
**P050BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	85	44.5	90	123	10.5	① K050.9.010 ② -
<b>FL</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	114.5	74	90	123	10.5	① K050.9.010 ② K050.0.200

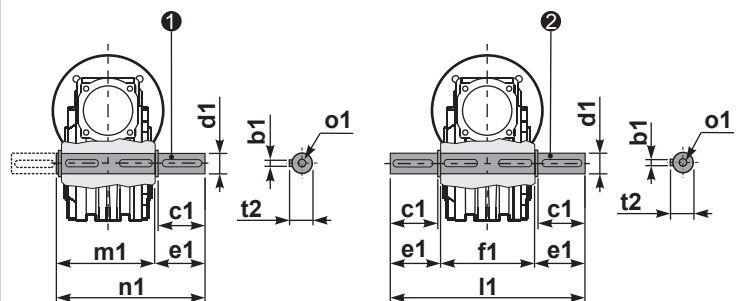
  

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	110 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	83.5	43	130	160	10	① KS050.9.012 ② -
<b>F2</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	76.5	36	90	123	10.5	① KS050.9.014 ② -
<b>F3</b>	95 <sup>+0.20</sup> / <sub>+0.15</sub>	4	10	66.5	26	115	140	10	① KS050.9.013 ② -



**P050.....S...** Single Shaft  
Albero lento semplice

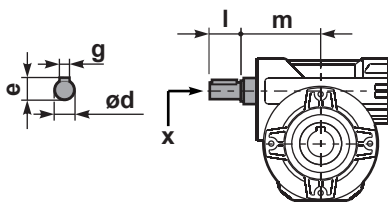
**P050.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

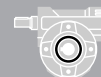
② kit cod. K050.5.029 type B  
kit cod. KS050.5.031 type S

**R050FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	74.5	M6x16	① K050.5.006 PAM71 ② K050.5.007 PAM80
type S	14 h6	16	5	30	74.5	M5x10	① KS050.5.008 PAM71 ② KS050.5.009 PAM80

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 <sup>-0.005</sup> / <sub>-0.020</sub>	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 <sup>-0.005</sup> / <sub>-0.020</sub>	68.8	81	218	86.5	155	27	M8x20


**QUICK SELECTION / Selezione veloce**

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code	
							-B	-C	-D	-E	-Q	-R	-T				
							63	71	80	90	71	80	90				
200	<b>7</b>	1.8	71	1.8	<b>3.2</b>	<b>125</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		83	3.1	01
140	<b>10</b>	1.8	99	1.4	<b>2.4</b>	<b>134</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		81	3.1	02
93	<b>15</b>	1.5	121	1.1	<b>1.7</b>	<b>138</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		79	3.1	03
74	<b>19</b>	1.1	111	1.2	<b>1.4</b>	<b>138</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		78	2.6	04
58	<b>24</b>	1.1	135	1.0	<b>1.2</b>	<b>142</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		75	2.0	05
47	<b>30</b>	1.1	167	0.9	<b>0.96</b>	<b>146</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		74	3.2	06
39	<b>36</b>	0.75	125	1.2	<b>0.88</b>	<b>147</b>		<b>B</b>	<b>B</b>	<b>B</b>		<b>B-C</b>	<b>B-C</b>		68	2.7	07
31	<b>45</b>	0.55	111	1.2	<b>0.67</b>	<b>135</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		66	2.1	08
23	<b>60</b>	0.55	140	0.9	<b>0.51</b>	<b>130</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		62	1.6	12
21	<b>67</b>	0.55	151	0.8	<b>0.45</b>	<b>124</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		60	1.5	09
17.5	<b>80</b>	0.37	115	1.0	<b>0.38</b>	<b>119</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		57	1.3	10
14.9	<b>94</b>	0.37	123	1.0	<b>0.36</b>	<b>119</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		52	1.1	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

**EN** Unit **063** 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.

**I** Il riduttore tipo **063** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **063** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **063** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **063** 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.

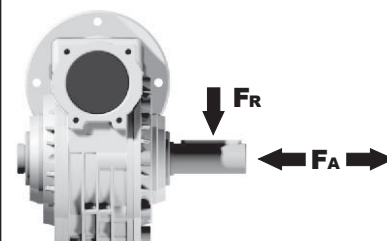
**LUBRICATION 063 Oil Quantity 0.40 Lt.**
**AGIP** Telium VSF 320

**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**

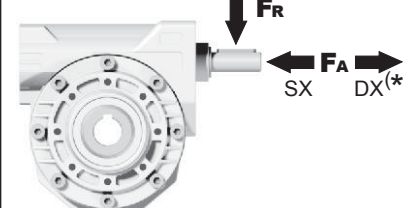
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>200</b>	360	1800
<b>150</b>	400	2000
<b>100</b>	460	2300
<b>75</b>	500	2500
<b>50</b>	600	3000
<b>25</b>	700	3800
<b>15</b>	800	4000

**Input shaft**

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	90	450

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

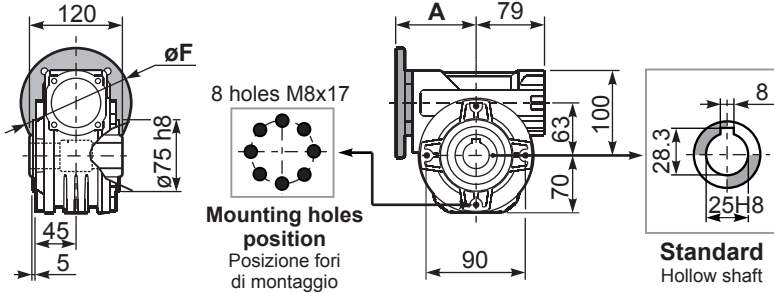
**tab. 2**

3D dimensions on the Web

**P063FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **6.00 kg**

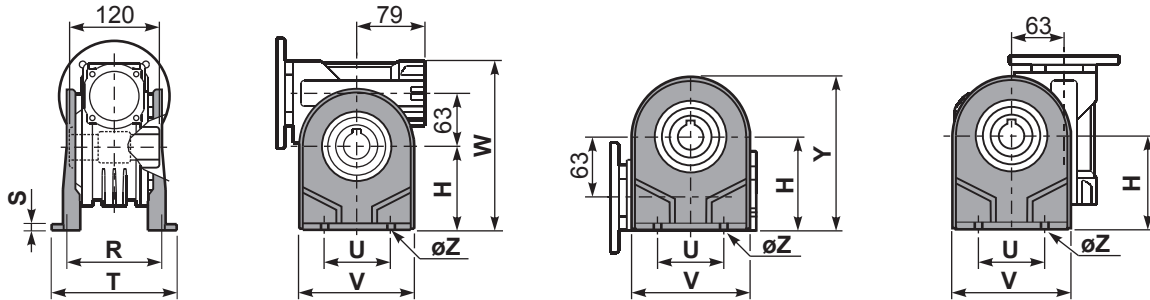
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	99.5
<b>71B5</b>	K063.4.042	160	97.5
<b>80/90B5</b>	K063.4.043	200	99.5
<b>71B14</b>	K063.4.047	105	97.5
<b>80B14</b>	K063.4.046	120	99.5
<b>90B14</b>	K063.4.041	140	99.5



**P063PA...** Feet  
Piedini

**P063PB...** Feet  
Piedini

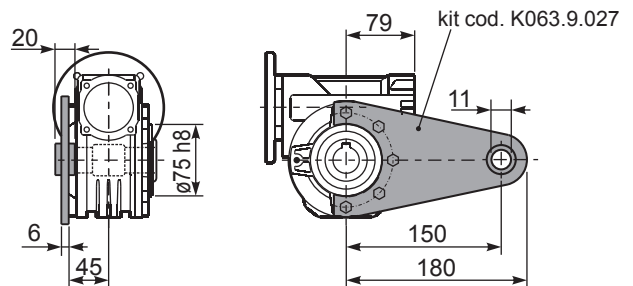
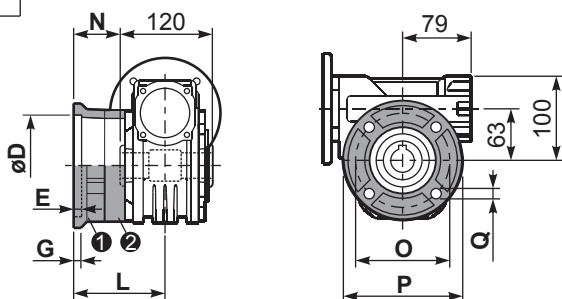
**P063PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P063FC...** Output flange  
Flangia uscita

**P063BR...** Reaction arm  
Braccio di reazione



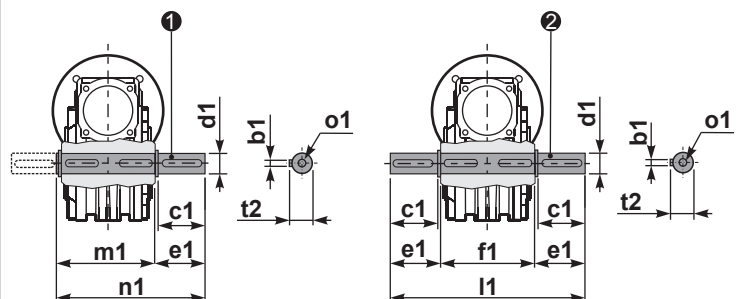
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	86	26	150	175	11	① K063.9.010 ② -
<b>FL</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① K063.9.010 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	102	42	165	200	13	① KS070.9.013 ② -
<b>F2</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
<b>F3</b>	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	82	22	130	160	10	① KS063.9.011 ② -

**P063.....S...** Single Shaft  
Albero lento semplice

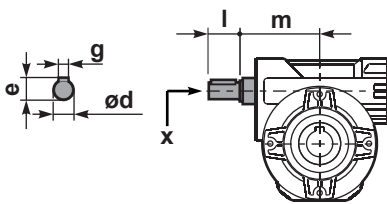
**P063.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

**R063FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	18 h6	20.5	6	45	93	M6x16	① K063.5.006 PAM80 ② K063.5.007 PAM90
type S	19 h6	21.5	6	40	93	M8x20	① KS063.5.008 PAM80 ② KS063.5.009 PAM90

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



### QUICK SELECTION / Selezione veloce

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 	
							-B	-C	-D	-E	-Q	-R	-T				
							63	71	80	90	71	80	90				
200	<b>7</b>	1.8	71	2.3	<b>4.1</b>	<b>162</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		83	3.1	01
140	<b>10</b>	1.8	99	1.7	<b>3.1</b>	<b>173</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		81	3.1	02
93	<b>15</b>	1.5	121	1.5	<b>2.2</b>	<b>178</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		79	3.1	03
74	<b>19</b>	1.5	152	1.2	<b>1.8</b>	<b>178</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		78	2.6	04
58	<b>24</b>	1.5	184	1.0	<b>1.5</b>	<b>185</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		75	2.0	05
47	<b>30</b>	1.5	227	0.8	<b>1.3</b>	<b>189</b>		<b>B</b>	<b>B</b>			<b>B-C</b>	<b>B-C</b>		74	3.2	06
39	<b>36</b>	1.1	184	1.0	<b>1.1</b>	<b>191</b>		<b>B</b>	<b>B</b>	<b>B</b>		<b>B-C</b>	<b>B-C</b>		68	2.7	07
31	<b>45</b>	0.75	152	1.2	<b>0.86</b>	<b>175</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		66	2.1	08
23	<b>60</b>	0.55	140	1.2	<b>0.66</b>	<b>168</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		62	1.6	12
21	<b>67</b>	0.55	151	1.1	<b>0.58</b>	<b>159</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		60	1.5	09
17.5	<b>80</b>	0.37	115	1.3	<b>0.49</b>	<b>153</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		57	1.3	10
14.9	<b>94</b>	0.37	123	1.1	<b>0.39</b>	<b>130</b>	<b>B</b>	<b>B</b>				<b>B-C</b>	<b>C</b>		52	1.1	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

**EN** Unit **63A** 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.

**I** Il riduttore tipo **63A** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **63A** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **63A** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **63A** 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.

### LUBRICATION 63A Oil Quantity 0.40 Lt.

**AGIP** Telium VSF 320

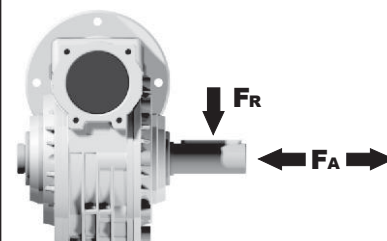
**SHELL** Omala S4 WE 320

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

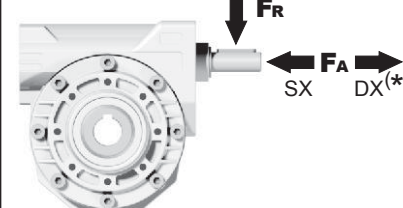
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>200</b>	360	1800
<b>150</b>	400	2000
<b>100</b>	460	2300
<b>75</b>	500	2500
<b>50</b>	600	3000
<b>25</b>	700	3800
<b>15</b>	800	4000

#### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	90	450

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

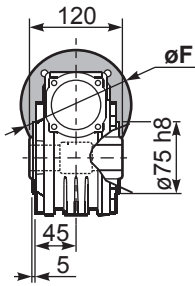
**tab. 2**



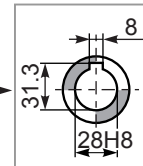
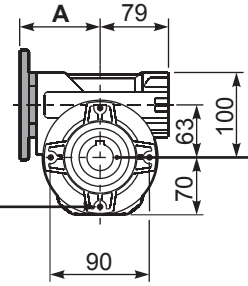
3D dimensions on the Web

**P63AFB...** Basic wormbox  
Riduttore base

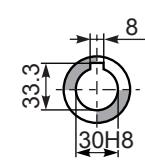
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	99.5
<b>71B5</b>	K063.4.042	160	97.5
<b>80/90B5</b>	K063.4.043	200	99.5
<b>71B14</b>	K063.4.047	105	97.5
<b>80B14</b>	K063.4.046	120	99.5
<b>90B14</b>	K063.4.041	140	99.5



8 holes M8x17  
Mounting holes position  
Posizione fori di montaggio



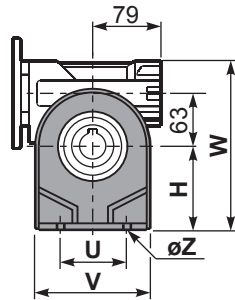
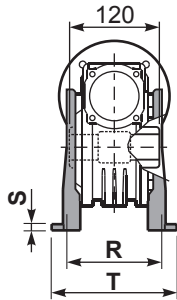
Standard  
Hollow shaft



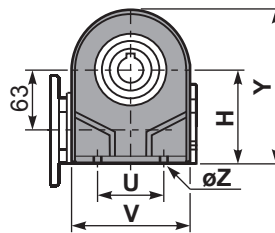
On request  
A richiesta

Gearbox weight  
peso riduttore **6.00 kg**

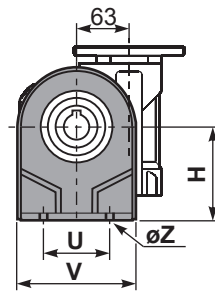
**P63APA...** Feet  
Piedini



**P63APB...** Feet  
Piedini

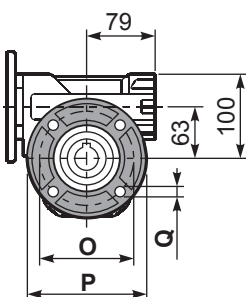
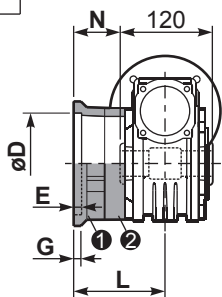


**P63APV...** Feet  
Piedini



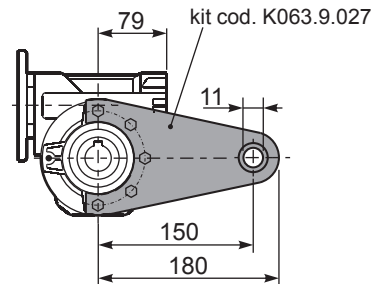
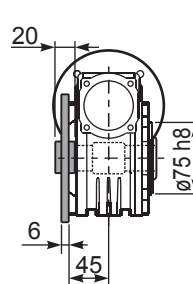
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P63AFC...** Output flange  
Flangia uscita



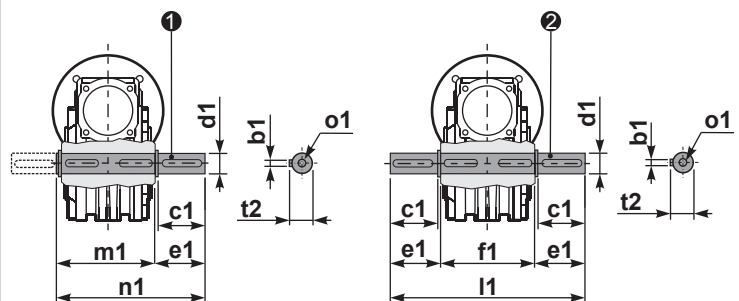
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	85	25	165	200	13	1 K070.9.010 2 -
<b>FL</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	1 K070.9.010 2 K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	1 KS070.9.014 2 -
<b>F2</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	1 KS063.9.013 2 -
<b>F3</b>	110 <sup>+0.035</sup> / <sub>0</sub>	5	13.5	84.5	24.5	130	160	11	1 KS070.9.011 2 -

**P63ABR...** Reaction arm  
Braccio di reazione



**P63A...S...** Single Shaft  
Albero lento semplice

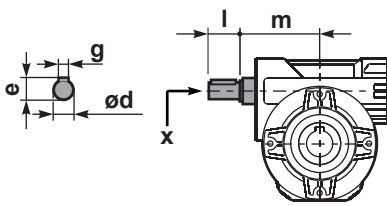
**P63A...D...** Double Shaft  
Albero lento bisp.



1 kit cod. K070.5.028 type B

2 kit cod. K070.5.029 type B

**R63AFB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	18 h6	20.5	6	45	93	M6x16	1 K063.5.006 PAM80 2 K063.5.007 PAM90
type S	19 h6	21.5	6	40	93	M8x20	1 KS063.5.008 PAM80 2 KS063.5.009 PAM90

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 <sup>-0.005</sup> / <sub>-0.020</sub>	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code	
							-C	-D	-E	-F	-R	-T	-U				
							71	80	90	100 112	80	90	100 112				
200	7	4.0	168	1.5	6.1	257		B	B			B	B		88	4.23	01
140	10	4.0	218	1.3	5.2	284		B	B			B	B		80	4.2	02
100	14	3.0	223	1.4	4.1	305		B	B			B	B		78	4.5	03
70	20	2.2	237	1.2	2.7	294		B	B			B	B		79	3.4	04
64	22	2.2	258	1.1	2.5	294		B	B			B	B		78	3.1	05
50	28	2.2	315	1.1	2.4	347		B	B	B		B	B		75	4.7	06
37	38	1.5	276	1.2	1.8	336	B	B				B			71	3.5	07
30	46	1.5	320	1.0	1.5	326	B	B				B			68	3.1	08
27	52	1.1	258	1.1	1.2	289	B	B				B			66	2.7	09
21	67	1.1	327	0.9	0.97	289	B	B				B			65	2.1	10
18.9	74	0.75	220	1.2	0.91	268	B	B				B			58	1.9	11
14.6	96	0.55	191	1.3	0.70	242	B	B				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

**EN** Unit **085** 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.

**I** Il riduttore tipo **085** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **085** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **085** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **085** 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.

**LUBRICATION 085 Oil Quantity 1.20 Lt.**

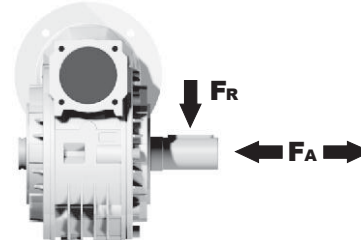
<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**RADIAL AND AXIAL LOADS**

**Output shaft**

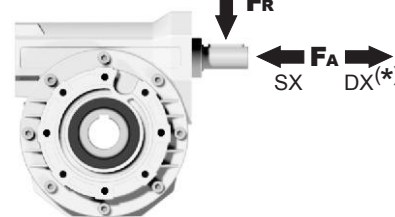
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	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 <sup>-1</sup> ]	FA [N]	FR [N]
1400	160	809

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

tab. 2

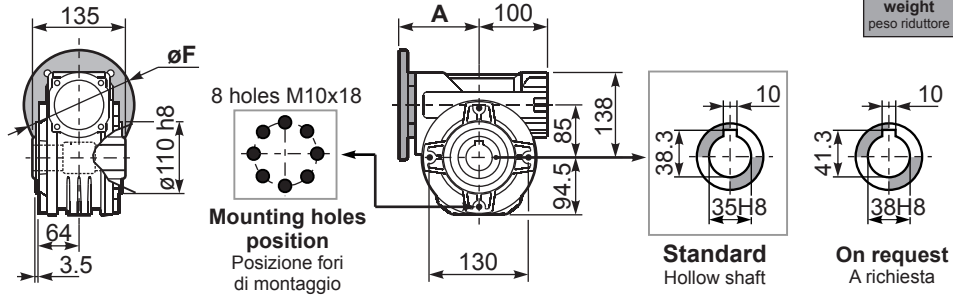


3D dimensions on the Web

**P085FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **11.00 kg**

M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	116
<b>80/90B5</b>	K023.4.042	200	118
<b>100/112B5</b>	K023.4.043	250	127
<b>80B14</b>	K085.4.046	120	118
<b>90B14</b>	K085.4.045	140	118
<b>100/112B14</b>	K023.4.041	160	116



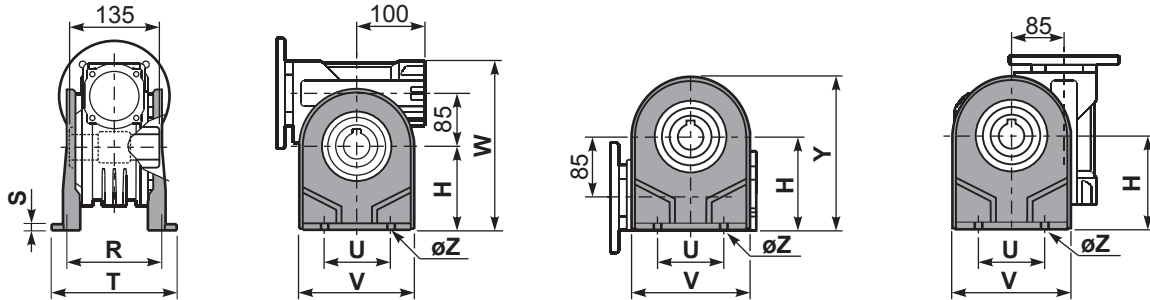
**Standard**  
Hollow shaft

**On request**  
A richiesta

**P085PA...** Feet  
Piedini

**P085PB...** Feet  
Piedini

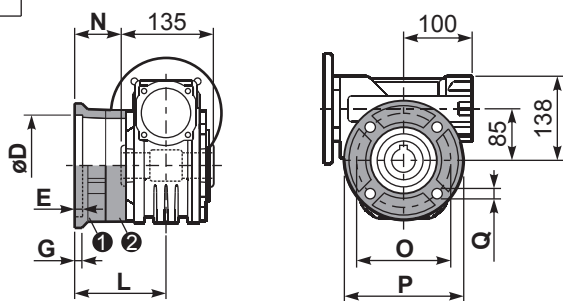
**P085PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	142	145	5	182	140	180	236.5	280	ø10.5	K085.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P085FC...** Output flange  
Flangia uscita

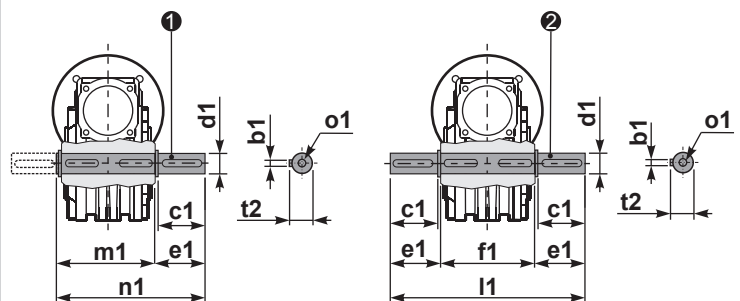
**P085BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	① K085.9.010 ② -
<b>FL</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 H7	5	13	117.5	50	165	200	11.5	① KS085.9.012 ② -
<b>F2</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	15	147.5	80	180	205	12.5	① KS085.9.013 ② -
<b>F4</b>	130 H7	5	13	106.5	39	165	200	13	① KS085.9.015 ② -

**P085.....S...** Single Shaft  
Albero lento semplice

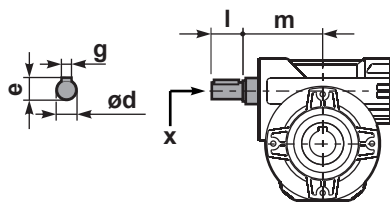
**P085.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

**R085FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	25 h6	28	8	50	112	M8x20	① K085.5.007 PAM90 ② K085.5.008 PAM100
type S	24 h6	27	8	50	112	M8x20	① KS085.5.009 PAM90 ② KS085.5.011 PAM100

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-

# 110 Rightangle - Gear

## 651Nm

Rating - Cast Iron WORM GEARBOXES


**QUICK SELECTION / Selezione veloce**

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges					Available B14 motor flanges				Dynamic efficiency RD	Tooth Module [mm]	Ratios code	
							-C	-D	-E	-F	-G	-R	-T	-U	-V				
							71	80	90	100 112	132	80	90	100 112	132				
200	7	7.5	315	1.5	11.5	483		B	B				B	B			88	5.5	01
140	10	7.5	440	1.2	9.0	525		B	B				B	B			86	5.4	02
88	16	5.5	492	1.1	6.0	536		B	B				B	B			82	5.3	03
70	20	4.0	447	1.2	4.9	546		B	B				B	B			82	4.5	04
61	23	3.0	377	1.4	4.1	515		B	B				B	B			80	3.9	05
47	30	3.0	467	1.4	4.2	651		B	B				B	B			76	5.6	06
37	38	3.0	583	1.1	3.3	641		B	B				B	B			75	4.7	07
31	45	2.2	493	1.2	2.7	599		B	B				B	B			73	4.0	08
26	53	2.2	557	1.1	2.5	620		B	B				B	B			70	3.5	09
22	64	1.5	452	1.2	1.8	536	B	B					B				69	2.9	10
16.7	84	1.1	410	1.2	1.3	494	B	B					B				65	2.2	11
14.1	99	1.1	446	1.1	1.2	483	B	B					B				60	1.9	12

**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

**EN** Unit 110 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 110 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 110 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 110 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño 110 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

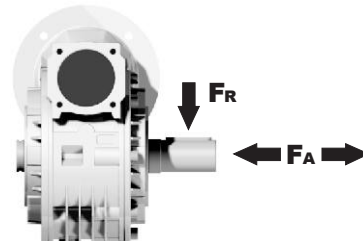
B3	B6	B7	B8	V5	V6
2.00 LT	1.35 LT	1.35 LT	2.00LT	2.00 LT	2.00LT

**AGIP** Blasias 460

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

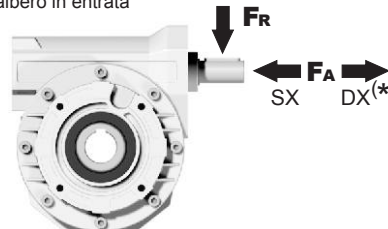
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	600	2900
150	700	3300
100	750	3600
75	800	4000
50	920	4600
25	1200	6000
15	1400	7000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	228	1140

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

tab. 2

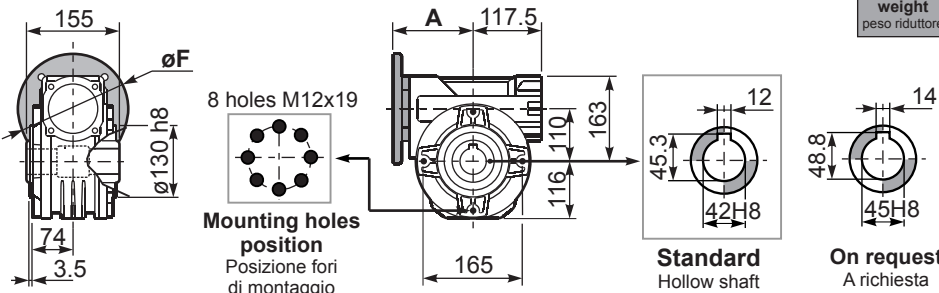
Rightangle - Gear  
**651Nm 110**

3D dimensions on the Web

**P110FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **35.00 kg**

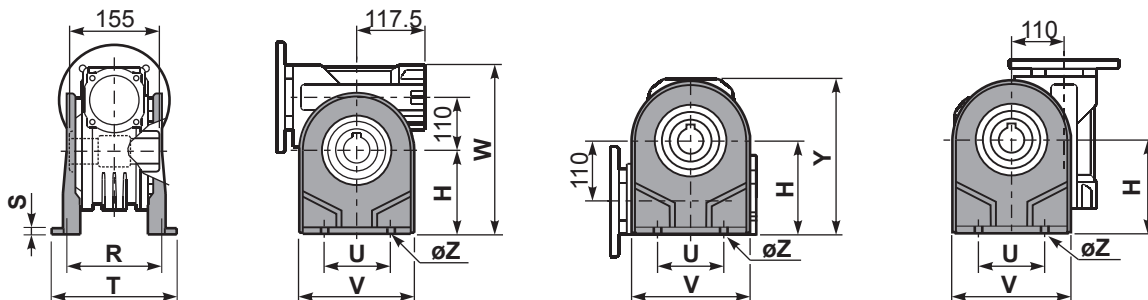
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	135.5
80/90B5	K023.4.042	200	137.5
100/112B5	K023.4.043	250	146.5
132B5	-	300	187
80B14	K085.4.046	120	137.5
90B14	K085.4.045	140	137.5
100/112B14	K023.4.041	160	135.5
132B14	-	200	187



**P110PA...** Feet  
Piedini

**P110PB...** Feet  
Piedini

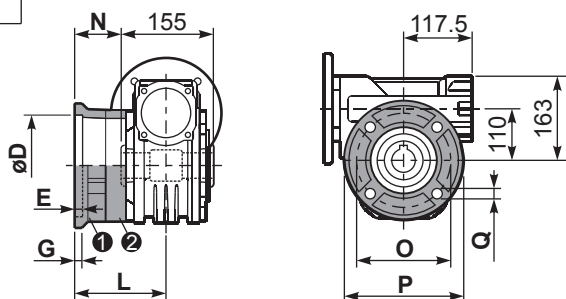
**P110PV...** Feet  
Piedini



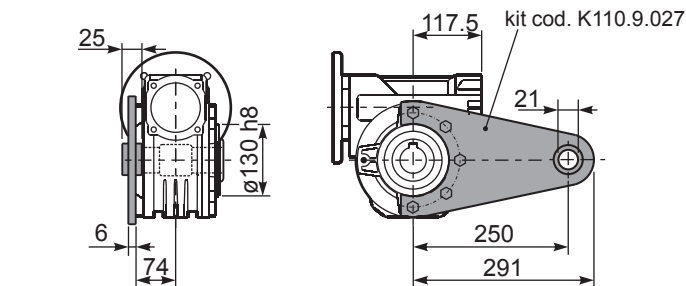
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	22	224	200	240	286	333	ø13	K110.9.022
type S	172	160	8	204	200	240	288	335	ø14	KS110.9.023

**P110FC...** Output flange  
Flangia uscita

**P110BR...** Reaction arm  
Braccio di reazione

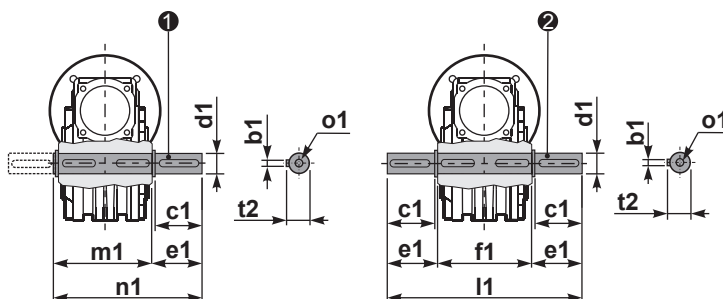


type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	131.5	54	230	270	13	1 K110.9.010 2 -
FL	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	179.5	102	230	270	13	1 K110.9.011 2 -
type S	øD	E	G	L	N	O	P	Q	kit code
F1	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	150	72.5	215	250	15	1 KS110.9.014 2 -
F2	170 <sup>+0.083</sup> / <sub>+0.043</sub>	9.5	15	178	100.5	230	270	13	1 KS110.9.012 2 -
F3	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	130	52.5	215	250	15	1 KS110.9.013 2 -



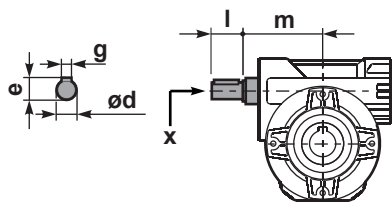
**P110.....S...** Single Shaft  
Albero lento semplice

**P110.....D...** Double Shaft  
Albero lento bisp.



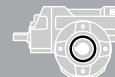
1 kit cod. K110.5.028 type B    2 kit cod. K110.5.029 type B

**R110FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	25 h6	28	8	50	131.5	M8x20	1 K085.5.007 PAM90 2 K085.5.008 PAM100
type S	24 h6	27	8	50	131.5	M8x20	1 KS085.5.009 PAM90 2 KS085.5.011 PAM100

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 <sup>-0.005</sup> / <sub>-0.020</sub>	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-



### QUICK SELECTION / Selezione veloce

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges			Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-A	-B	-C	-P	-Q			
							56	63	71	63	71			
47	<b>30.1</b>	0.25	38	1.4	<b>0.36</b>	<b>55</b>				<b>C</b>		74	2.2	01
33	<b>43.0</b>	0.25	53	1.0	<b>0.26</b>	<b>55</b>				<b>C</b>		72	2.2	02
23	<b>60.2</b>	0.25	62	0.9	<b>0.22</b>	<b>55</b>				<b>C</b>		60	2.4	03
15.5	<b>90.3</b>	0.12	42	1.3	<b>0.16</b>	<b>55</b>				<b>C</b>		57	1.6	04
11.6	<b>120</b>	0.12	52	1.1	<b>0.13</b>	<b>55</b>				<b>C</b>		53	2.5	05
8.8	<b>159</b>	0.12	64	0.9	<b>0.10</b>	<b>55</b>				<b>C</b>		49	1.8	06
7.1	<b>198</b>	0.12*	55	<0.8	<b>0.09</b>	<b>55</b>				<b>C</b>		47	1.5	07
5.4	<b>258</b>	0.12*	55	<0.8	<b>0.07</b>	<b>55</b>				<b>C</b>		45	1.2	08
4.7	<b>301</b>	0.12*	39	<0.8	<b>0.05</b>	<b>39</b>				<b>C</b>		40	1.0	09
3.2	<b>439</b>	0.12*	39	<0.8	<b>0.04</b>	<b>39</b>				<b>C</b>		36	0.72	10

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

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**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** Unit **P45** 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.


**I** Il riduttore tipo **P45** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P45** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P45** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P45** 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.

**LUBRICATION P45 Oil**  
Common lubrication 0.17 l (A + B).

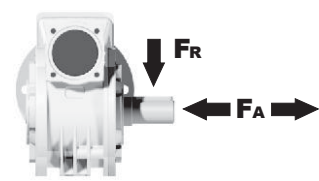


<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

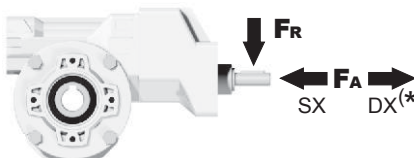
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	240	1200
50	260	1400
25	300	1800
15-6	400	2000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	44	220

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

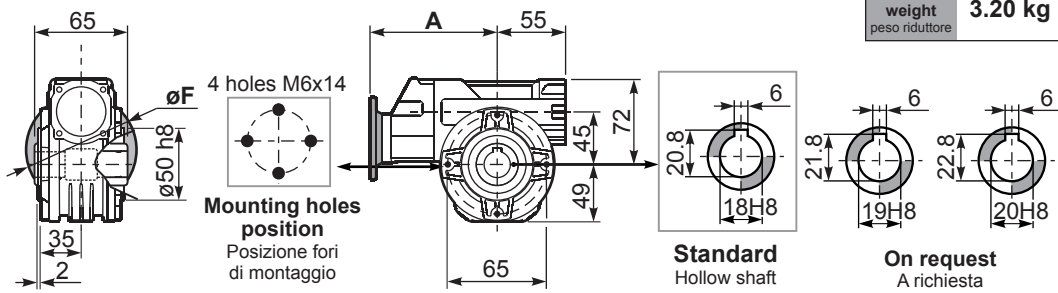
tab. 2

3D dimensions on the Web

PP45**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **3.20 kg**

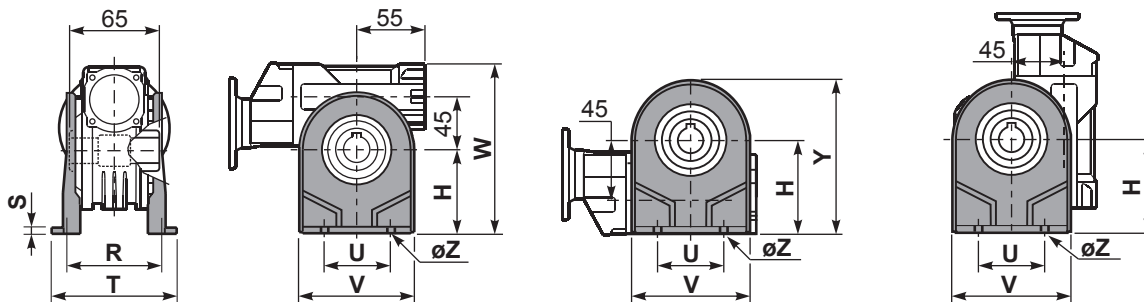
M. flanges	Kit code	øF	A
56B5	K050.4.046	120	137.5
63B5	K050.4.041	138	139.5
71B5	K050.4.042	160	137
63B14	K050.4.047	90	139.5
71B14	K050.4.045	105	137



PP45**PA**... Feet  
Piedini

PP45**PB**... Feet  
Piedini

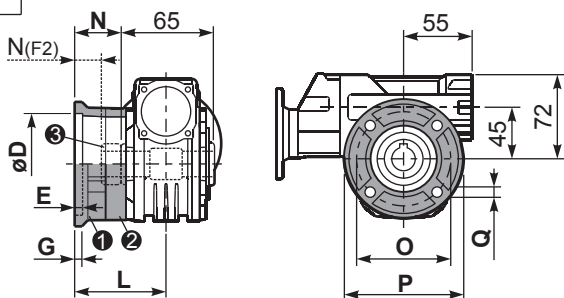
PP45**PV**... Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	72	81	3	100	52	98	121	144	ø10.5	K045.9.022
type S	71	84	8	100	70	90	120	143	ø8	KS045.9.023

PP45**FC**... Output flange  
Flangia uscita

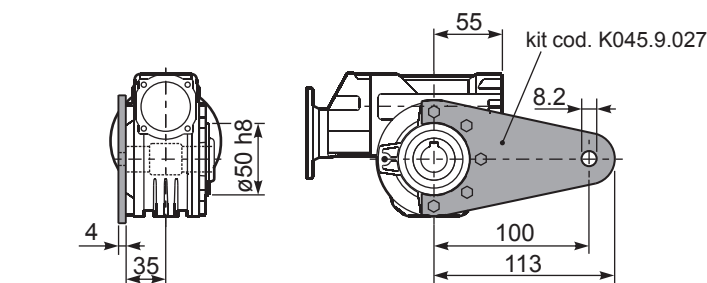
PP45**BR**... Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 <sup>+0.15</sup> / <sub>-0.05</sub>	9	9	60.5	28	87	110	8.5	① K045.9.010 ② -
FL	60 <sup>+0.15</sup> / <sub>-0.05</sub>	9	9	90.5	58	87	110	8.5	① K045.9.010 ② K045.0.200

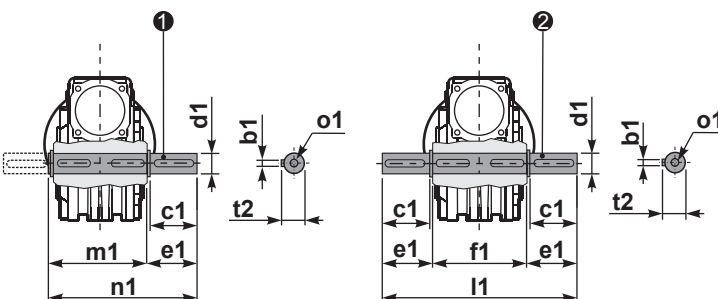
  

type S	øD	E	G	L	N	O	P	Q	kit code
F1	95 <sup>+0.20</sup> / <sub>-0.15</sub>	4	11	73.5	41	115	140	9	① KS045.9.013 ② -
F2	60 <sup>+0.15</sup> / <sub>-0.05</sub>	9	9	60.5	19	87	110	8.5	① KS045.9.010 ② S045.0.204
F3	80 <sup>+0.03</sup> / <sub>-0.00</sub>	3	8	51.5	19	100	120	9	① KS045.9.014 ② -



PP45.....**S**... Single Shaft  
Albero lento semplice

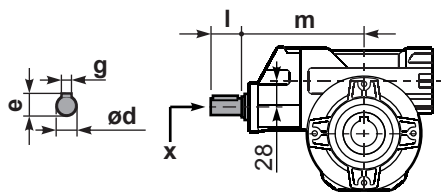
PP45.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

② kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

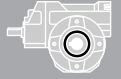
RP45**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x
type B	14 h6	16	5	25	131	M5x13
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 <sup>-0.005</sup> / <sub>-0.020</sub>	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> / <sub>-0.020</sub>	58.8	65	182	70	128.5	21.5	M8x20




**QUICK SELECTION / Selezione veloce**

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges			Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-C	-P	-Q			
							56	63	71	63	71			
47	<b>30.1</b>	0.37	58	1.3	<b>0.49</b>	77				C		76	2.5	01
33	<b>43.0</b>	0.25	55	1.4	<b>0.35</b>	77				C		75	2.4	02
23	<b>60.2</b>	0.25	71	1.1	<b>0.27</b>	77				C		69	2.6	03
18.1	<b>77.4</b>	0.25	81	1.1	<b>0.27</b>	88				C		61	2.0	04
12.5	<b>112</b>	0.18	84	1.1	<b>0.19</b>	88				C		61	2.7	05
9.0	<b>155</b>	0.12	71	1.2	<b>0.15</b>	88				C		56	2.1	06
7.6	<b>185</b>	0.12	74	1.0	<b>0.12</b>	77				C		49	1.8	07
5.4	<b>258</b>	0.12*	77	<0.8	<b>0.09</b>	77				C		47	1.3	08
4.8	<b>292</b>	0.12*	66	<0.8	<b>0.08</b>	66				C		44	1.2	09
4.1	<b>344</b>	0.12*	44	<0.8	<b>0.05</b>	44				C		40	1.0	10
3.3	<b>430</b>	0.12*	44	<0.8	<b>0.04</b>	44				C		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** Unit **P50** 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.

**I** Il riduttore tipo **P50** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P50** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P50** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P50** 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.

**LUBRICATION P50 Oil**  
Common lubrication 0.26 l (A + B).

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

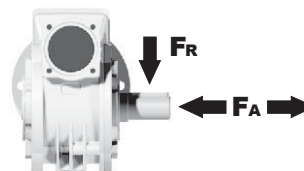
For all details on lubrication and plugs check our website

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

tab. 1

**RADIAL AND AXIAL LOADS**
**Output shaft**

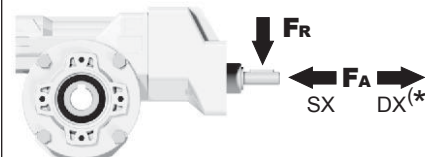
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	340	1700
50	380	1900
25	480	2500
15-6	560	2800

**Input shaft**

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	44	220

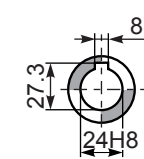
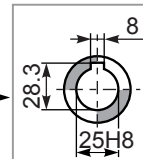
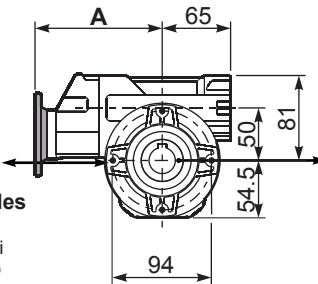
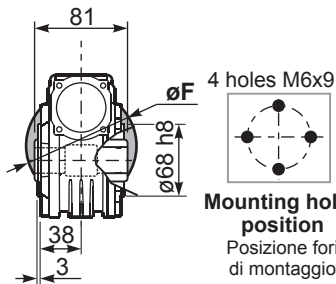
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

3D dimensions on the Web

**PP50FB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
56B5	K050.4.046	120	142
63B5	K050.4.041	138	144
71B5	K050.4.042	160	141.5
63B14	K050.4.047	90	144
71B14	K050.4.045	105	141.5



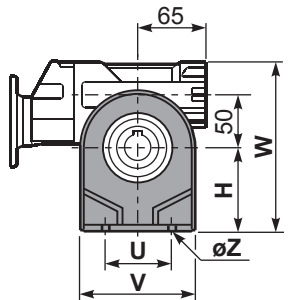
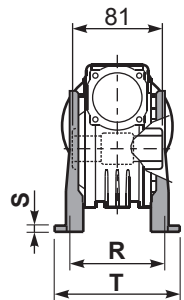
**Standard**  
Hollow shaft

**On Request "type S"**  
A richiesta "tipo S"

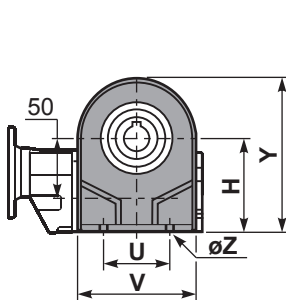
**Gearbox weight**  
peso riduttore **3.80 kg**

1

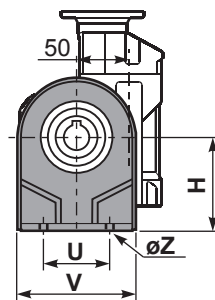
**PP50PA...** Feet  
Piedini



**PP50PB...** Feet  
Piedini

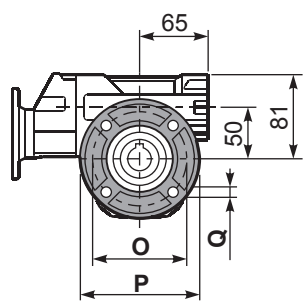
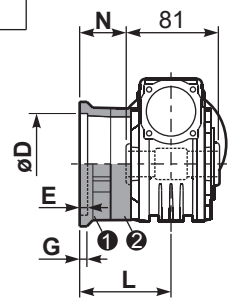


**PP50PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	82	98.5	3.5	123	63	113	138.5	163	ø10.5	K050.9.022
type S	85	96	10	114	85	110	139.5	166	ø10	KS050.9.023

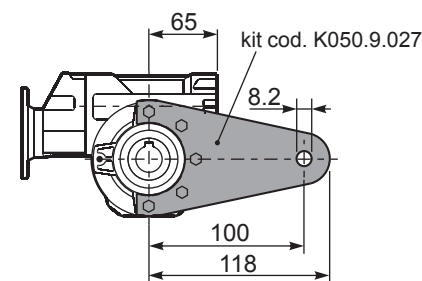
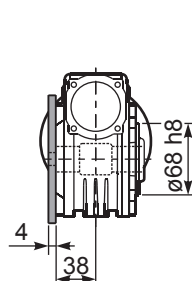
**PP50FC...** Output flange  
Flangia uscita



type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	85	44.5	90	123	10.5	1 K050.9.010 2 -
FL	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	114.5	74	90	123	10.5	1 K050.9.010 2 K050.0.200

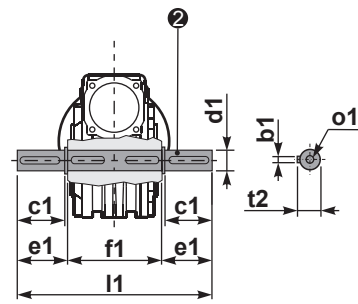
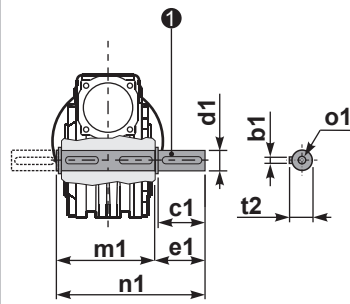
type S	øD	E	G	L	N	O	P	Q	kit code
F1	110 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	83.5	43	130	160	10	1 KS050.9.012 2 -
F2	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	76.5	36	90	123	10.5	1 KS050.9.014 2 -
F3	95 <sup>+0.035</sup> / <sub>0</sub>	4	10	66.5	26	115	140	10	1 KS050.9.013 2 -

**PP50BR...** Reaction arm  
Braccio di reazione



**PP50....S...** Single Shaft  
Albero lento semplice

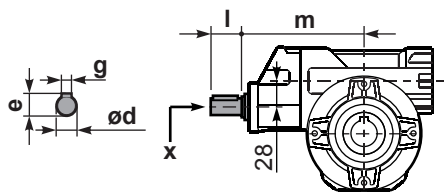
**PP50....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

2 kit cod. K050.5.029 type B  
kit cod. KS050.5.031 type S

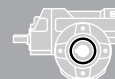
**RP50FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x
type B	14 h6	16	5	25	135.5	M5x13
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 <sup>-0.005</sup> / <sub>-0.020</sub>	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 <sup>-0.005</sup> / <sub>-0.020</sub>	68.8	81	218	86.5	155	27	M8x20




**QUICK SELECTION / Selezione veloce**

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

	Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges				Available B14 motor flanges				Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
								-B	-C	-D	-E	-P	-Q	-R	-T			
								63	71	80	90	63	71	80	90			
IEC 90 - 80 - 71	47	<b>29.9</b>	0.75	113	1.5	<b>1.1</b>	<b>165</b>						C	C		74	2.6	01
	37	<b>37.7</b>	0.75	141	1.2	<b>0.88</b>	<b>165</b>						C	C		73	2.0	02
	30	<b>47.1</b>	0.75	169	1.1	<b>0.83</b>	<b>187</b>						C	C		70	3.2	03
	25	<b>56.6</b>	0.55	136	1.4	<b>0.76</b>	<b>187</b>						C	C		64	2.7	04
	19.8	<b>70.7</b>	0.55	164	1.1	<b>0.63</b>	<b>187</b>						C	C		62	2.1	05
	15.9	<b>87.8</b>	0.37	162	1.2	<b>0.43</b>	<b>187</b>						C	C		73	2.6	06
	12.6	<b>111.0</b>	0.37	199	0.9	<b>0.35</b>	<b>187</b>						C	C		71	2.0	07
IEC 71 - 63	10.1	<b>139</b>	0.37	234	0.8	<b>0.30</b>	<b>187</b>						C			67	3.2	08
	8.4	<b>166</b>	0.25	173	1.1	<b>0.27</b>	<b>187</b>						C			61	2.7	09
	6.7	<b>208</b>	0.18	151	1.1	<b>0.20</b>	<b>165</b>						C			59	2.1	10
	4.5	<b>310</b>	0.12	129	1.3	<b>0.15</b>	<b>165</b>						C			51	1.5	11
	3.8	<b>370</b>	0.12	145	1.1	<b>0.14</b>	<b>165</b>						C			48	1.3	12
	3.2	<b>434</b>	0.12	149	0.9	<b>0.11</b>	<b>138</b>						C			42	1.1	13

**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

**EN** Unit **P63** 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.

**I** Il riduttore tipo **P63** 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.

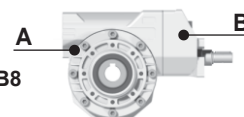
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P63** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P63** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P63** 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.

**LUBRICATION P63 Oil**

For B3-V5-V6 separate lubrication for A ( 0.40 l ) B ( 0.08 l ) , for B6-B7-B8 common lubrication 0.38 l ( A + B ).

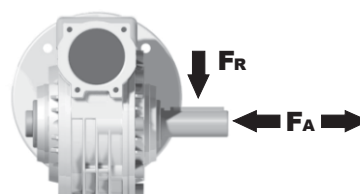

**AGIP** Telium VSF 320

**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**

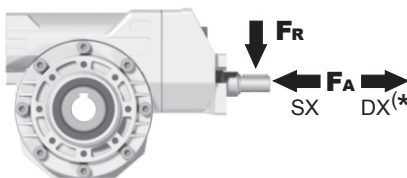
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	500	2500
50	600	3000
25	700	3800
15-6	800	4000

**Input shaft**

albero in entrata

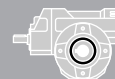


$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	61	305

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

**tab. 2**




**QUICK SELECTION / Selezione veloce**

 input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

	Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges				Dynamic efficiency RD	Tooth Module [mm]	Ratios code
								-B	-C	-D	-E	-P	-Q	-R	-T			
								63	71	80	90	63	71	80	90			
IEC 90 - 80 - 71	47	29.9	0.75	113	1.6	1.20	182					C	C		74	2.6	01	
	37	37.7	0.75	141	1.3	0.97	182					C	C		73	2.0	02	
	30	47.1	0.75	169	1.2	0.91	206					C	C		70	3.2	03	
	25	56.6	0.75	185	1.1	0.83	206					C	C		64	2.7	04	
	19.8	70.7	0.55	162	1.3	0.70	206					C	C		61	2.1	05	
	15.9	87.8	0.37	160	1.4	0.51	218					C	C		72	2.6	06	
	12.6	111.0	0.37	196	1.1	0.41	218					C	C		70	2.0	07	
IEC 71 - 63	10.1	139	0.37	231	0.9	0.35	218					C			66	3.2	08	
	8.4	166	0.25	170	1.3	0.32	218					C			60	2.7	09	
	6.7	208	0.25	195	1.0	0.25	194					C			55	2.1	10	
	4.5	310	0.18	194	1.0	0.18	194					C			51	1.5	11	
	3.8	370	0.18	213	0.9	0.16	194					C			47	1.3	12	
	3.2	434	0.18*	143	<0.8	0.11	143					C			42	1.1	13	

**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 P6A 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.

**I** Il riduttore tipo P6A 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.

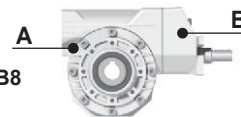
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe P6A mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type P6A est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño P6A 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.

**LUBRICATION P6A Oil**

For B3-V5-V6 separate lubrication for A ( 0.40 l ) B ( 0.08 l ) , for B6-B7-B8 common lubrication 0.38 l ( A + B ).



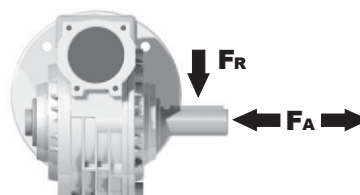
AGIP Telium VSF 320

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**

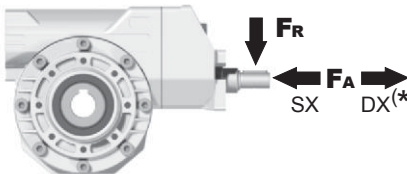
Albero di uscita



n <sub>2</sub> [min <sup>-1</sup> ]	FA [N]	FR [N]
75	500	2500
50	600	3000
25	700	3800
15-6	800	4000

**Input shaft**

albero in entrata



n <sub>1</sub> [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	61	305

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

**tab. 2**

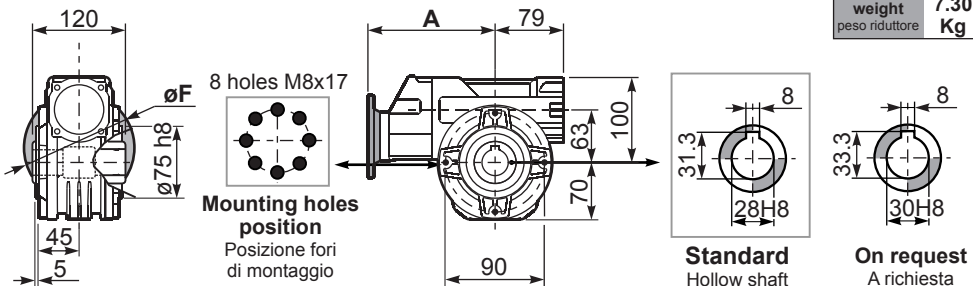
3D dimensions on the Web

Rightangle - Gear  
**218Nm** **P6A**

**PP6AFB...** Basic wormbox  
Riduttore base

Gearbox weight 29.9+111 139+434  
peso riduttore **7.30** **7.80**  
Kg Kg

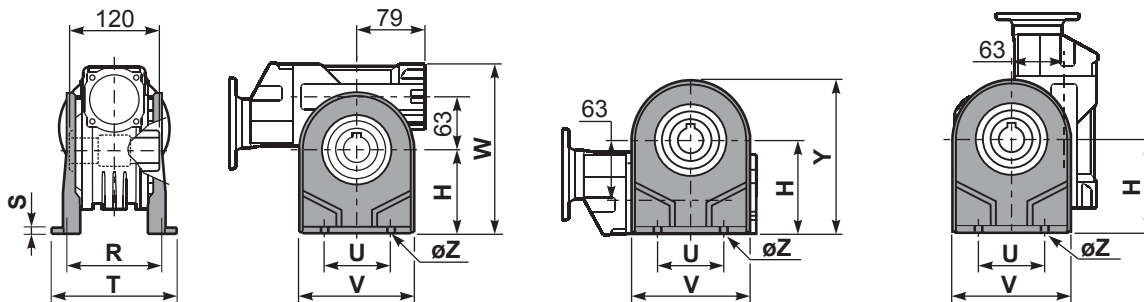
M.flange	Kit code	øF	A
71B5	K063.4.042	160	176.5
80/90B5	K063.4.043	200	178.5
71B14	K063.4.047	105	176.5
80B14	K063.4.046	120	178.5
90B14	K063.4.041	140	178.5
<b>139+434</b>			
63B5	K050.4.041	138	162.5
71B5	K050.4.042	160	160
63B14	K050.4.047	90	162.5
71B14	K050.4.045	105	160



**PP6APA...** Feet  
Piedini

**PP6APB...** Feet  
Piedini

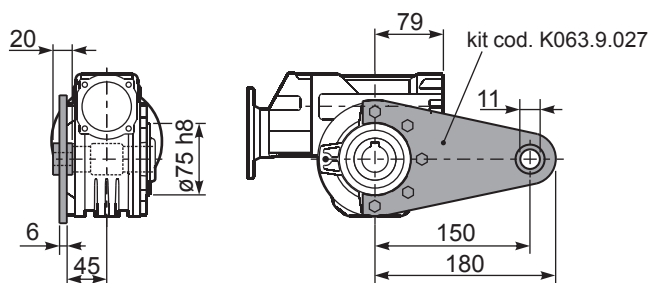
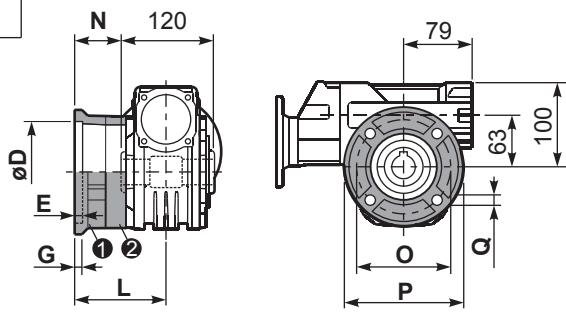
**PP6APV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

**PP6AFC...** Output flange  
Flangia uscita

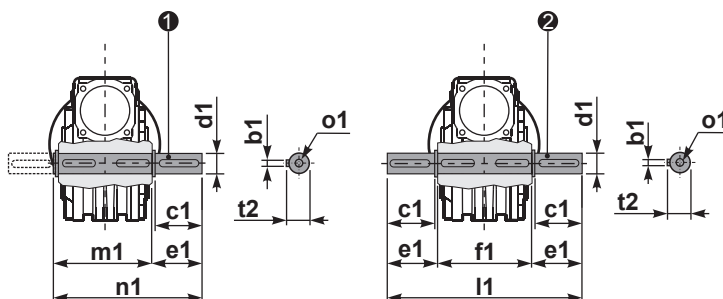
**PP6ABR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	85	25	165	200	13	① K070.9.010 ② -
FL	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	① K070.9.010 ② K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	① KS070.9.014 ② -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	13.5	84.5	24.5	130	160	11	① KS070.9.011 ② -

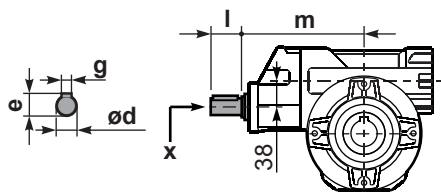
**PP6A....S...** Single Shaft  
Albero lento semplice

**PP6A....D...** Double Shaft  
Albero lento bisp.



① kit cod. K070.5.028 type B    ② kit cod. K070.5.029 type B

**RP6AFB...** Input shaft  
Albero in entrata



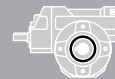
	ød	e	g	l	m	x	
29.9+111	19 h6	21.5	6	35	169.4	M6x16	C40.5.062
139+434	14 h6	16	5	25	154.2	M5x13	C35.5.061

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 <sup>-0.005</sup> / <sub>-0.020</sub>	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-

# P85 Rightangle - Gear

## 440Nm

Rating - Aluminum WORM GEARBOXES



### QUICK SELECTION / Selezione veloce

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
23.5	<b>59.7</b>	1.1	300	1.4	<b>1.5</b>	<b>418</b>					C	C		67	3.5	01
19.4	<b>72.3</b>	1.1	347	1.2	<b>1.3</b>	<b>407</b>					C	C		64	3.1	02
17.1	<b>81.7</b>	1.1	374	1.1	<b>1.2</b>	<b>418</b>					C	C		61	2.7	03
13.3	<b>105</b>	0.75	323	1.2	<b>0.89</b>	<b>385</b>					C	C		60	2.1	04
8.0	<b>176</b>	0.55	415	1.1	<b>0.58</b>	<b>440</b>	B				C	C		63	3.5	05
6.6	<b>213</b>	0.37	322	1.3	<b>0.47</b>	<b>407</b>	B				C	C		60	3.1	06
5.8	<b>240</b>	0.37	321	1.3	<b>0.48</b>	<b>418</b>	B				C	C		53	2.7	07
4.3	<b>328</b>	0.37	438	1.0	<b>0.35</b>	<b>418</b>	B				C	C		53	2.7	08
3.3	<b>422</b>	0.25	374	1.0	<b>0.26</b>	<b>385</b>	B				C	C		52	2.1	09
3.0	<b>466</b>	0.25	358	0.9	<b>0.23</b>	<b>330</b>	B				C	C		45	1.9	10
2.3	<b>605</b>	0.18	297	1.1	<b>0.20</b>	<b>330</b>	B				C	C		40	1.5	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 **P85** 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.

**I** Il riduttore tipo **P85** 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.

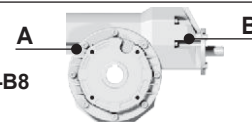
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P85** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P85** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P85** 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.

### LUBRICATION P85 Oil

For B3-V5-V6 separate lubrication for A ( 1.20 l ) B ( 0.14 l ) , for B6-B7-B8 common lubrication 0.90 l ( A + B ).



**AGIP** Telium VSF 320

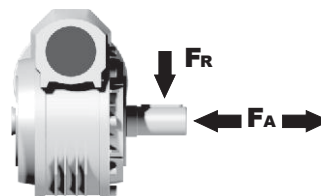
**SHELL** Omala S4 WE 320

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

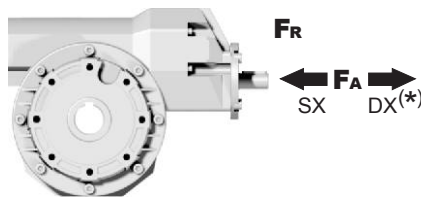
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>75</b>	700	3500
<b>50</b>	800	4000
<b>25</b>	1000	5000
<b>15-6</b>	1160	5800

#### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	108	540

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

**tab. 2**



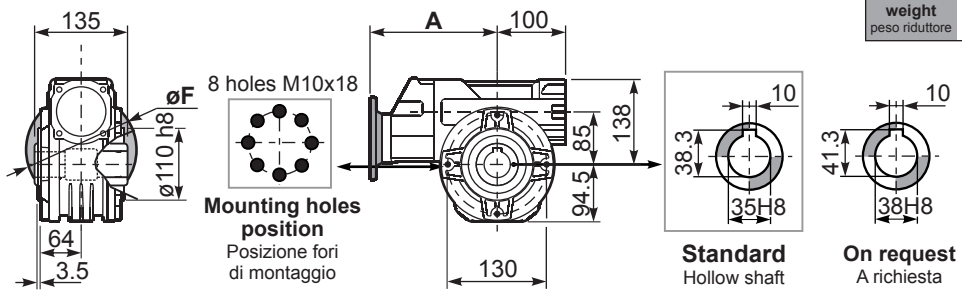
Rightangle - Gear  
**440Nm P85**

3D dimensions on the Web

PP85**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **19.30 kg**

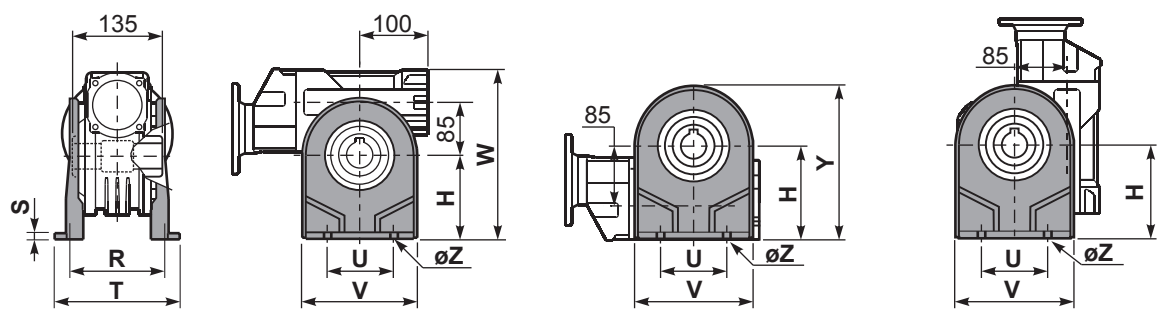
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	195.2
71B5	K063.4.042	160	193.2
80/90B5	K063.4.043	200	195.2
71B14	K063.4.047	105	193.2
80B14	K063.4.046	120	195.2
90B14	K063.4.041	140	195.2



PP85**PA**... Feet  
Piedini

PP85**PB**... Feet  
Piedini

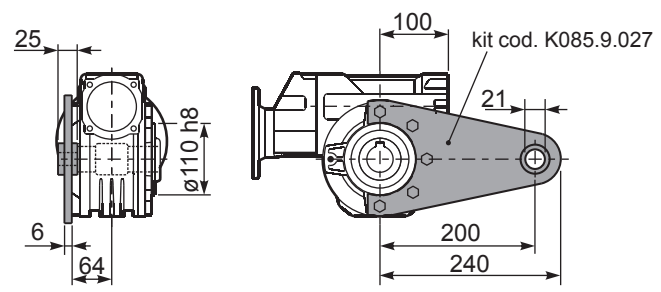
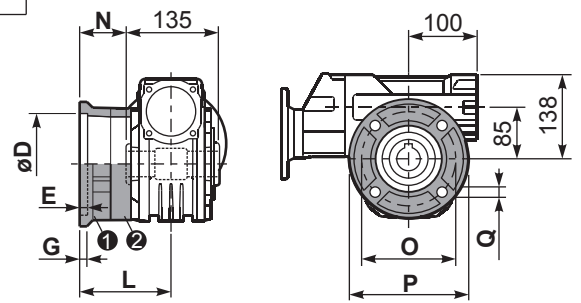
PP85**PV**... Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	142	145	5	182	140	180	236.5	280	ø10.5	K085.9.022
type S	-	-	-	-	-	-	-	-	-	-

PP85**FC**... Output flange  
Flangia uscita

PP85**BR**... Reaction arm  
Braccio di reazione



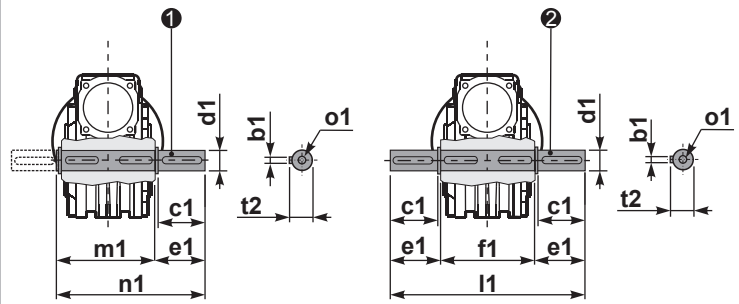
type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	① K085.9.010 ② -
FL	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.04</sup> / <sub>+0.00</sub>	5	13	117.5	50	165	200	11.5	① KS085.9.012 ② -
F2	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	15	147.5	80	180	205	12.5	① KS085.9.013 ② -
F4	130 <sup>+0.04</sup> / <sub>+0.00</sub>	5	13	106.5	39	165	200	13	① KS085.9.015 ② -

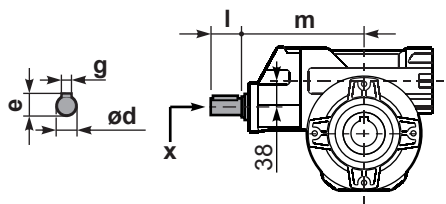
PP85.....**S**... Single Shaft  
Albero lento semplice

PP85.....**D**... Double Shaft  
Albero lento bisp.



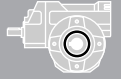
① kit cod. K085.5.028 type B    ② kit cod. K085.5.029 type B

RP85**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x
type B	19 h6	21.5	6	35	187.5	M6x16
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
16.8	<b>83.2</b>	1.5	587	1.1	<b>1.7</b>	<b>660</b>					C			69	3.5	01
13.9	<b>100.5</b>	1.5	699	0.8	<b>1.3</b>	<b>594</b>					C			68	2.9	02
10.6	<b>132</b>	1.1	634	0.9	<b>0.95</b>	<b>550</b>					C			64	2.2	03
8.0	<b>176</b>	0.75	666	1.2	<b>0.90</b>	<b>803</b>	B				C			74	4.7	04
6.7	<b>208</b>	0.75	766	0.9	<b>0.65</b>	<b>660</b>	B				C			72	4.0	05
5.7	<b>245</b>	0.55	634	1.0	<b>0.57</b>	<b>660</b>	B				C			69	3.5	06
4.7	<b>296</b>	0.55	755	0.8	<b>0.43</b>	<b>594</b>	B				C			68	2.9	07
4.2	<b>334</b>	0.55	865	0.8	<b>0.42</b>	<b>660</b>	B				C			69	3.5	08
3.5	<b>403</b>	0.37	692	0.9	<b>0.32</b>	<b>594</b>	B				C			68	2.9	09
2.6	<b>529</b>	0.25	577	1.0	<b>0.24</b>	<b>550</b>	B				C			64	2.2	10
2.2	<b>624</b>	0.25	628	0.8	<b>0.21</b>	<b>528</b>	B				C			59	1.9	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 **P10** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. Primary reduction unit is supplied with closed plugs and lubricated for life with synthetic oil. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P10** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. La precoppia è fornita con tappi chiusi e lubrificata a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **P10** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Die Stirnradvorstufe ist Lebensdauer geschmiert und wird mit synthetischem Öl geliefert. Die Stirnradvorstufe ist komplett geschlossen ohne Füllschrauben. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P10** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le pré couple est fourni lubrifié à vie avec de l'huile synthétique et avec des bouchons fermés. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **P10** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

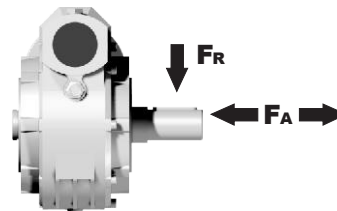
<b>B3</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>	<b>V5</b>	<b>V6</b>
2.0/0.14LT	1.35/0.14 LT	1.35/0.14 LT	2.0/0.14 LT	2.0/0.14 LT	2.0/0.14 LT

AGIP Blasia 460

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

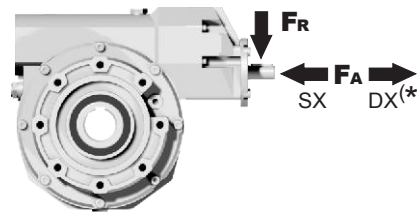
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	800	4000
50	920	4600
25	1200	6000
15-6	1400	7000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	150	760

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

tab. 2

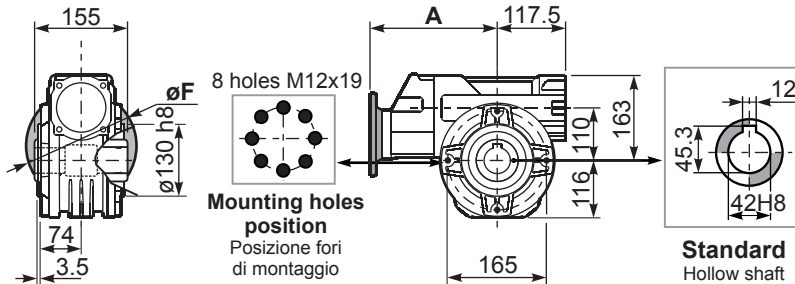


3D dimensions on the Web

PP10**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **41.00 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	214.7
71B5	K063.4.042	160	212.7
80/90B5	K063.4.043	200	214.7
71B14	K063.4.047	105	212.7
80B14	K063.4.046	120	214.7
90B14	K063.4.041	140	214.7

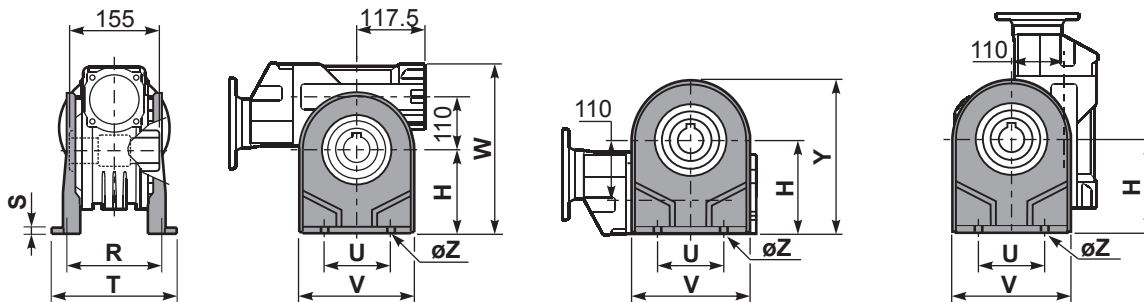


Standard  
Hollow shaft

PP10**PA**... Feet  
Piedini

PP10**PB**... Feet  
Piedini

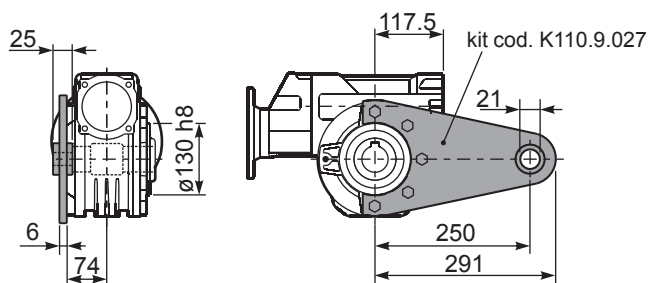
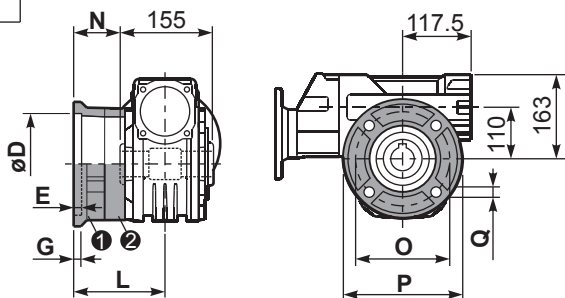
PP10**PV**... Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	22	224	200	240	286	333	ø13	K110.9.022
type S	172	160	8	204	200	240	288	335	ø14	KS110.9.023

PP10**FC**... Output flange  
Flangia uscita

PP10**BR**... Reaction arm  
Braccio di reazione



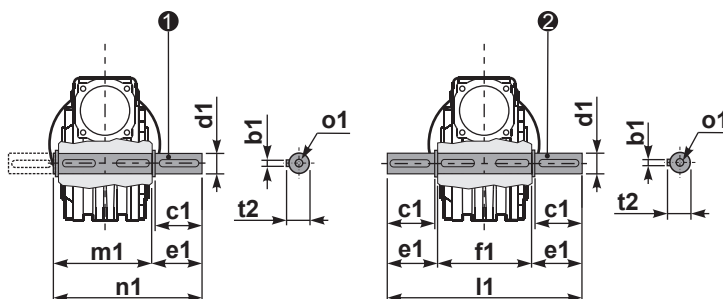
type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 <sup>+0.083</sup> / <sub>0</sub> <sup>+0.043</sup>	11	16.5	131.5	54	230	270	13	① K110.9.010 ② -
FL	170 <sup>+0.083</sup> / <sub>0</sub> <sup>+0.043</sup>	11	16.5	179.5	102	230	270	13	① K110.9.011 ② -

type S	øD	E	G	L	N	O	P	Q	kit code
F1	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	150	72.5	215	250	15	① KS110.9.014 ② -
F2	170 <sup>+0.083</sup> / <sub>0</sub> <sup>+0.043</sup>	9.5	15	178	100.5	230	270	13	① KS110.9.012 ② -
F3	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	130	52.5	215	250	15	① KS110.9.013 ② -

PP10.....**S**... Single Shaft  
Albero lento semplice

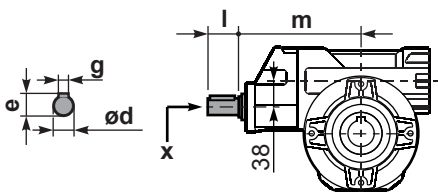
PP10.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K110.5.028 type B

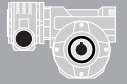
② kit cod. K110.5.029 type B

RP10**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x
type B	19 h6	21.5	6	35	205	M6x16
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 <sup>-0.005</sup> / <sub>0</sub> <sup>-0.020</sup>	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-



**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
9.3	<b>150</b>	0.06	29	1.2	<b>0.07</b>	<b>35</b>	B		B-C		48	1.44	01
6.7	<b>210</b>	0.06	39	0.9	<b>0.05</b>	<b>35</b>	B		B-C		45	1.44	02
4.7	<b>300</b>	0.06*	35	<0.8	<b>0.05</b>	<b>35</b>	B		B-C		36	1.44	03
3.1	<b>450</b>	0.06*	35	<0.8	<b>0.03</b>	<b>35</b>	B		B-C		33	1.44	04
2.3	<b>600</b>	0.06*	35	<0.8	<b>0.03</b>	<b>35</b>	B		B-C		30	1.44	05
1.6	<b>900</b>	0.06*	35	<0.8	<b>0.02</b>	<b>35</b>	B		B-C		27	1.44	06
1.2	<b>1200</b>	0.06*	35	<0.8	<b>0.02</b>	<b>35</b>	B		B-C		26	1.44	07
0.8	<b>1830</b>	0.06*	35	<0.8	<b>0.01</b>	<b>35</b>	B		B-C		24	1.44	08
0.6	<b>2400</b>	0.06*	35	<0.8	<b>0.01</b>	<b>35</b>	B		B-C		22	1.44	09

**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** Unit **303** 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.

**I** Il riduttore tipo **303** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **303** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **303** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **303** 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.

**LUBRICATION 303 Oil** **Quantity 0.03/0.03 Lt.**

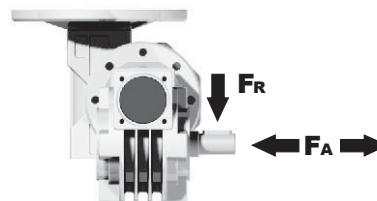
**AGIP** Telium VSF 320

**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

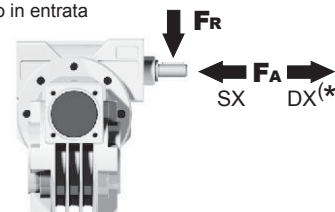
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	300	1800
<b>15</b>	400	2000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	20	100

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

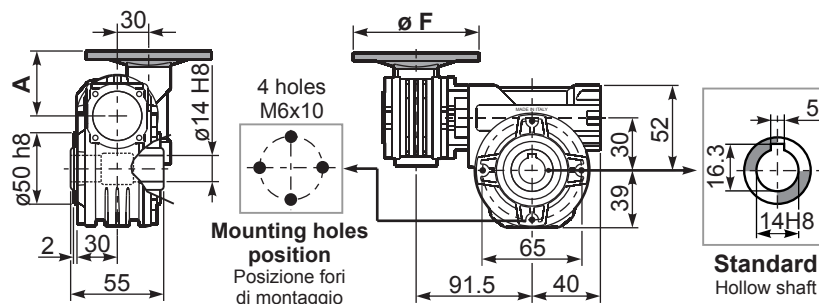
**tab. 2**

3D dimensions on request

**P303FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **2.15 kg**

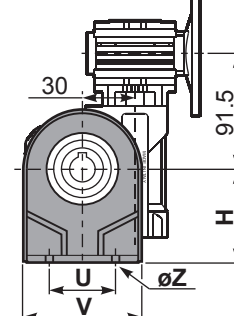
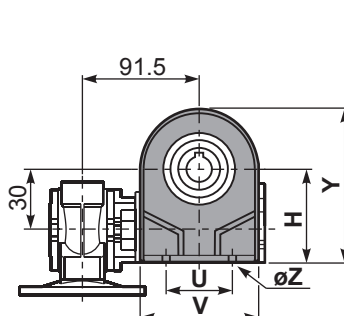
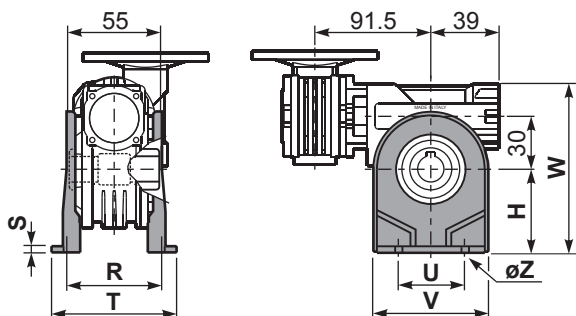
M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5



**P303PA...** Feet  
Piedini

**P303PB...** Feet  
Piedini

**P303PV...** Feet  
Piedini

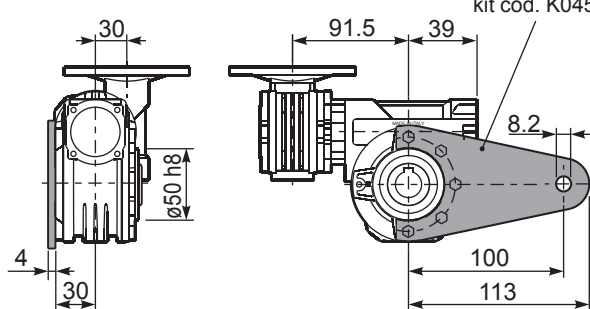
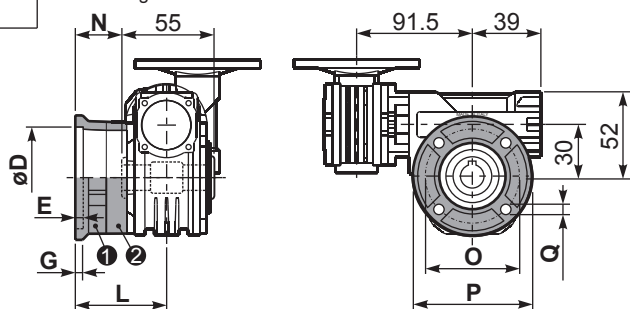


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	55	66	3	87	50	78	94	107	ø6.5	K030.9.022
type S	52	66	3	87	52	90	91	104	ø6.5	KS030.9.023

**P303FC...** Output flange  
Flangia uscita

**P303BR...** Reaction arm  
Braccio di reazione

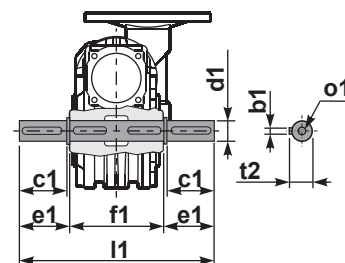
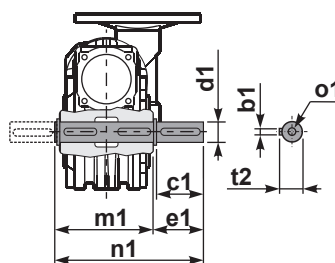
kit cod. K045.9.027



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	50 <sup>+0.15</sup> / <sub>+0.05</sub>	6	6	50.5	23	68	80	7	1 K030.9.010 2 -
<b>FL</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	6	6	55.5	28	87	110	8.5	1 K030.9.011 2 -
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	40 <sup>+0.15</sup> / <sub>+0.10</sub>	3.5	5.5	49	21.5	56	80	6.5	1 KS030.9.012 2 -

**P303....S...** Single Shaft  
Albero lento semplice

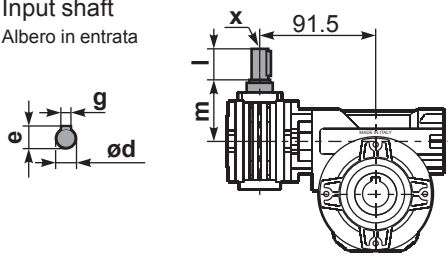
**P303....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K030.5.028 type B

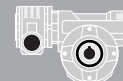
2 kit cod. K030.5.029 type B

**R303FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	K030.5.006 PAM63
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 <sup>-0.005</sup> / <sub>-0.020</sub>	35.5	55	126	59	94.5	15.8	M5x14
type S	-	-	-	-	-	-	-	-	-	-


**QUICK SELECTION / Selezione veloce**

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
10.0	<b>140</b>	0.12	57	1.2	<b>0.14</b>	<b>69</b>	B		B-C		50	2.2	01
7.0	<b>200</b>	0.12	79	0.9	<b>0.11</b>	<b>69</b>	B		B-C		48	2.2	02
5.0	<b>280</b>	0.12*	69	<0.8	<b>0.08</b>	<b>69</b>	B		B-C		45	2.4	03
3.3	<b>420</b>	0.12*	69	<0.8	<b>0.07</b>	<b>69</b>	B		B-C		36	1.6	04
2.5	<b>560</b>	0.12*	69	<0.8	<b>0.05</b>	<b>69</b>	B		B-C		33	2.5	05
1.9	<b>740</b>	0.12*	69	<0.8	<b>0.05</b>	<b>69</b>	B		B-C		30	1.8	06
1.5	<b>920</b>	0.12*	69	<0.8	<b>0.04</b>	<b>69</b>	B		B-C		27	1.5	07
1.3	<b>1120</b>	0.12*	69	<0.8	<b>0.03</b>	<b>69</b>	B		B-C		26	2.5	08
0.9	<b>1480</b>	0.12*	69	<0.8	<b>0.03</b>	<b>69</b>	B		B-C		24	1.8	09
0.8	<b>1840</b>	0.12*	69	<0.8	<b>0.02</b>	<b>69</b>	B		B-C		22	1.5	10
0.6	<b>2400</b>	0.12*	69	<0.8	<b>0.02</b>	<b>69</b>	B		B-C		21	1.2	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** Unit 453 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.

**I** Il riduttore tipo 453 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 453 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 453 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 453 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.

**LUBRICATION 453 Oil** 0.09 Lt. 0.03 Lt.

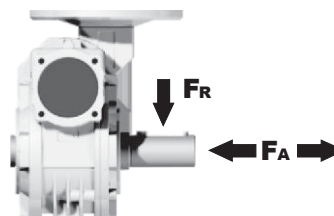
**AGIP** Telium VSF 320

**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

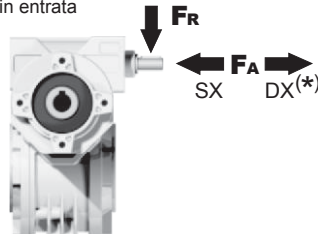
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	$F_A$ [N]	$F_R$ [N]
25	300	1800
15	400	2000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	$F_A$ [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

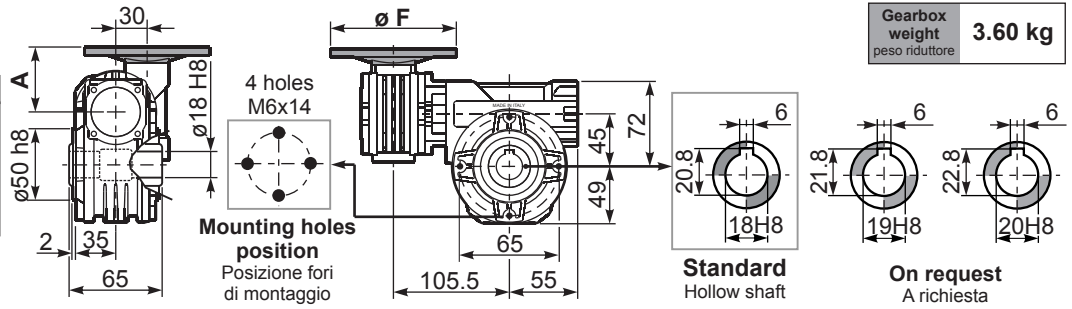
**tab. 2**

Rightangle - Gear  
**69Nm 453**

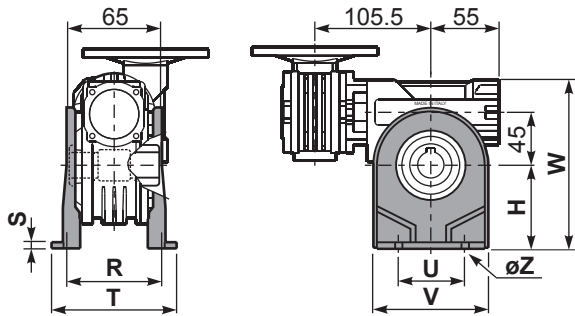
3D dimensions on request

**P453FB...** Basic wormbox  
Riduttore base

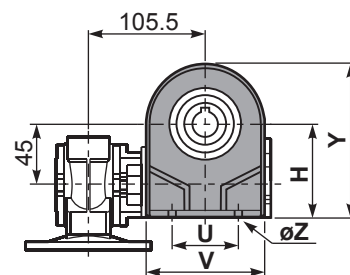
M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



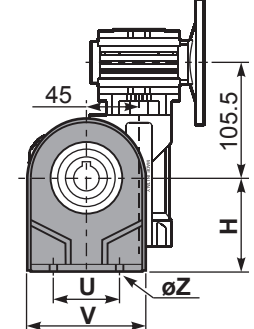
**P453PA...** Feet  
Piedini



**P453PB...** Feet  
Piedini

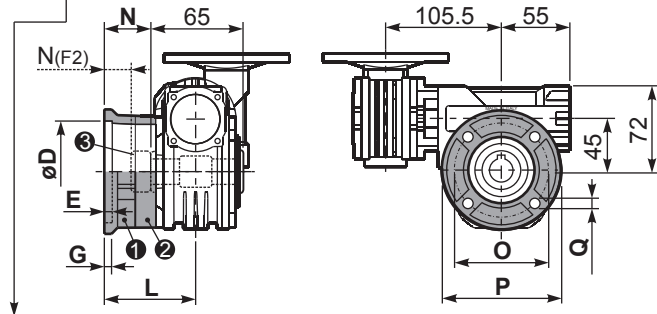


**P453PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	72	81	3	100	52	98	121	144	ø10.5	K045.9.022
type S	71	84	8	100	70	90	120	143	ø8	KS045.9.023

**P453FC...** Output flange  
Flangia uscita

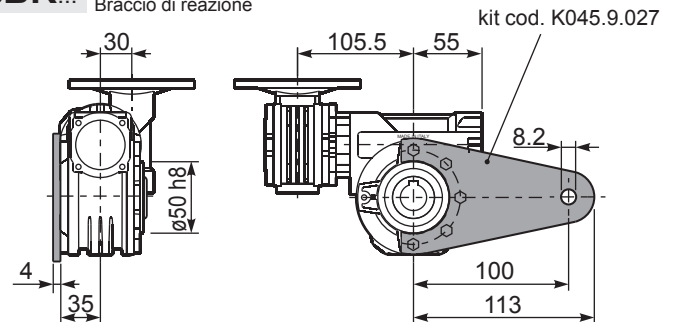


type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 <sup>+0.15</sup> / <sub>-0.05</sub>	9	9	60.5	28	87	110	8.5	① K045.9.010 ② -
FL	60 <sup>+0.15</sup> / <sub>-0.05</sub>	9	9	90.5	58	87	110	8.5	① K045.9.010 ② K045.0.200

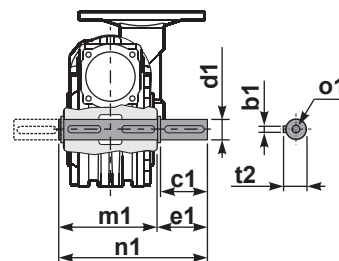
  

type S	øD	E	G	L	N	O	P	Q	kit code
F1	95 <sup>+0.20</sup> / <sub>-0.15</sub>	4	11	73.5	41	115	140	9	① KS045.9.013 ② -
F2	60 <sup>+0.15</sup> / <sub>-0.05</sub>	9	9	60.5	19	87	110	8.5	① KS045.9.010 ② S045.0.204
F3	80 <sup>+0.030</sup> / <sub>0</sub>	3	8	51.5	19	100	120	9	① KS045.9.014 ② -

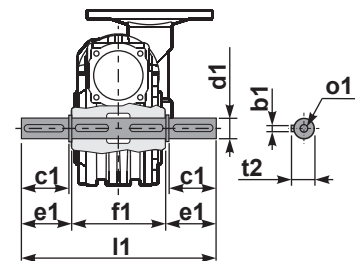
**P453BR...** Reaction arm  
Braccio di reazione



**P453....S...** Single Shaft  
Albero lento semplice

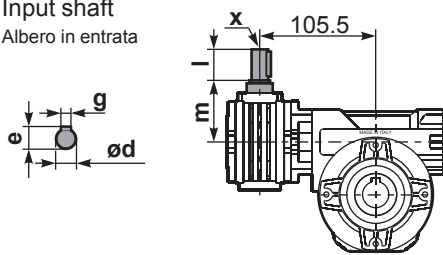


**P453....D...** Double Shaft  
Albero lento bisp.



- ① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S
- ② kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

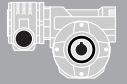
**R453FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	① K030.5.006 PAM63 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 <sup>-0.005</sup> / <sub>-0.020</sub>	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> / <sub>-0.020</sub>	58.5	65	182	70	128.5	21.5	M8x20





**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
5.6	<b>252</b>	0.12	97	1.1	<b>0.14</b>	<b>109</b>	B		B-C		47	2.1	01
3.9	<b>360</b>	0.12	124	0.9	<b>0.11</b>	<b>109</b>	B		B-C		42	2.1	02
2.6	<b>540</b>	0.12*	109	<0.8	<b>0.08</b>	<b>109</b>	B		B-C		39	2.1	03
1.9	<b>720</b>	0.12*	109	<0.8	<b>0.06</b>	<b>109</b>	B		B-C		36	2.1	04
1.6	<b>860</b>	0.12*	109	<0.8	<b>0.06</b>	<b>109</b>	B		B-C		32	1.8	05
1.2	<b>1200</b>	0.12*	109	<0.8	<b>0.05</b>	<b>109</b>	B		B-C		27	1.3	06
1.0	<b>1440</b>	0.12*	109	<0.8	<b>0.04</b>	<b>109</b>	B		B-C		26	2.1	07
0.8	<b>1720</b>	0.12*	109	<0.8	<b>0.04</b>	<b>109</b>	B		B-C		25	1.8	08
0.6	<b>2400</b>	0.12*	104	<0.8	<b>0.03</b>	<b>104</b>	B		B-C		21	1.3	09

**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** Unit 503 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.

**I** Il riduttore tipo 503 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 503 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 503 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 503 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.

**LUBRICATION 503 Oil** 0.14 Lt. 0.03 Lt.

**Quantity 0.14/0.03 Lt.**

**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 [N]	FR [N]
25	480	2500
15	560	2800

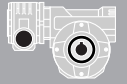
**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [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





**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
5.6	<b>252</b>	0.18	142	1.6	<b>0.29</b>	<b>230</b>	B		B-C		46	2.7	01
3.9	<b>360</b>	0.18	181	1.3	<b>0.23</b>	<b>230</b>	B		B-C		41	2.7	02
2.6	<b>540</b>	0.12	164	1.4	<b>0.17</b>	<b>230</b>	B		B-C		37	2.7	03
1.9	<b>720</b>	0.12	200	1.1	<b>0.14</b>	<b>230</b>	B		B-C		34	2.7	04
1.3	<b>1080</b>	0.12	265	0.9	<b>0.10</b>	<b>230</b>	B		B-C		30	2.7	05
1.0	<b>1440</b>	0.12*	230	<0.8	<b>0.09</b>	<b>230</b>	B		B-C		27	2.7	06
0.5	<b>2745</b>	0.12*	230	<0.8	<b>0.05</b>	<b>230</b>	B		B-C		23	2.1	07

**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** Unit **633** 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.

**I** Il riduttore tipo **633** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **633** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **633** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **633** 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.

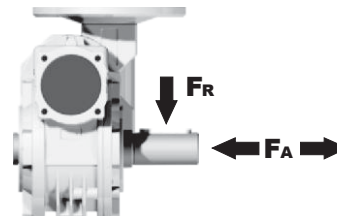
**LUBRICATION 633 Oil** 0.40 Lt. 0.03 Lt.  
**Quantity 0.40/0.03 Lt.**

<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

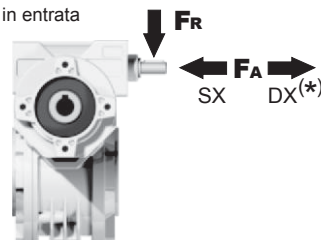
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	700	3800
<b>15</b>	800	4000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	20	100

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

**tab. 2**

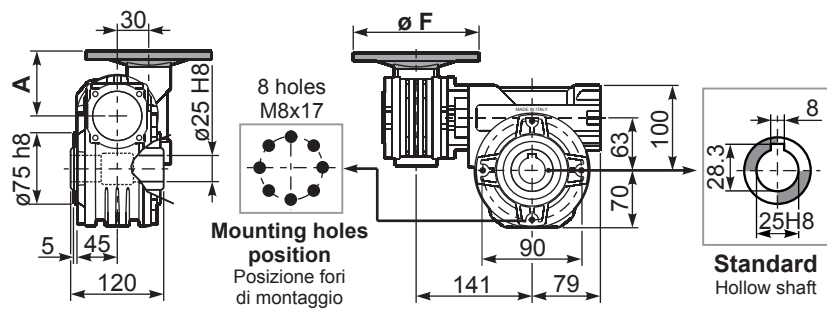
Rightangle - Gear  
**230Nm** **633**

3D dimensions on request

P633**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **7.50 kg**

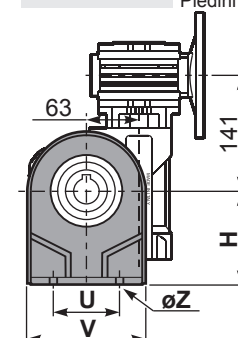
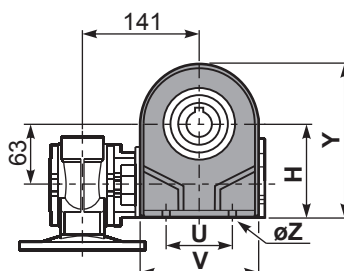
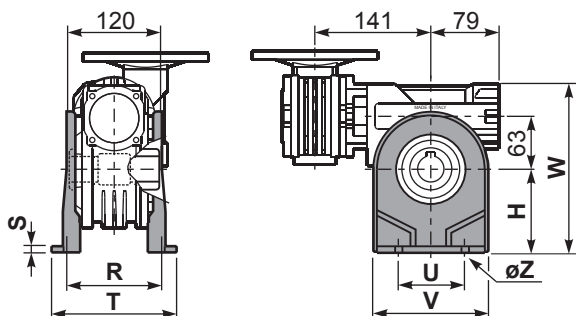
M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5



P633**PA**... Feet  
Piedini

P633**PB**... Feet  
Piedini

P633**PV**... Feet  
Piedini

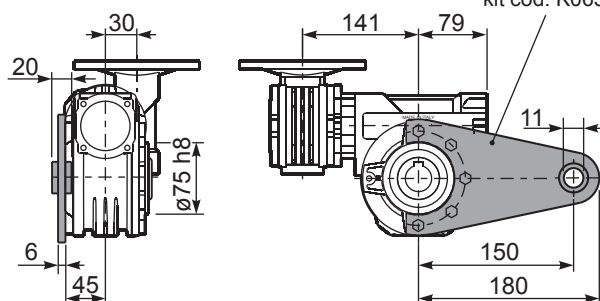
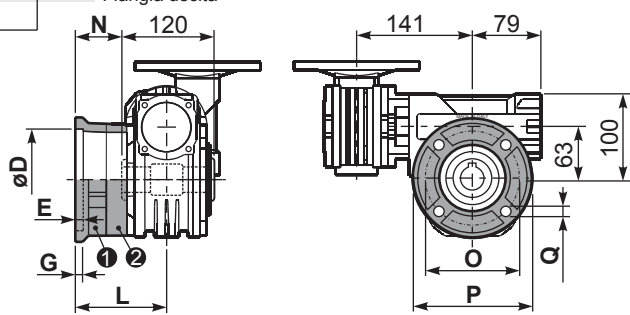


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

P633**FC**... Output flange  
Flangia uscita

P633**BR**... Reaction arm  
Braccio di reazione

kit cod. K063.9.027



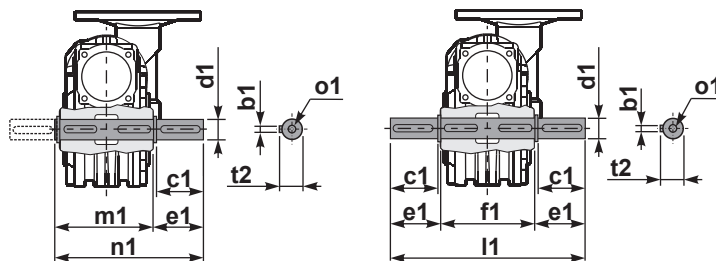
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	86	26	150	175	11	1 ① K063.9.010 2 ② -
<b>FL</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	1 ① K063.9.010 2 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	102	42	165	200	13	1 ① KS070.9.013 2 ② -
<b>F2</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	1 ① KS063.9.013 2 ② -
<b>F3</b>	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	82	22	130	160	10	1 ① KS063.9.011 2 ② -

P633.....**S**... Single Shaft  
Albero lento semplice

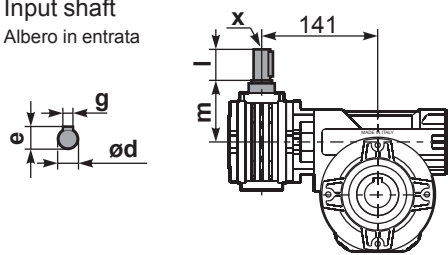
P633.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K063.5.028 type B

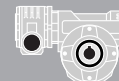
② kit cod. K063.5.029 type B

R633**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	1 ① K030.5.006 PAM63 2 ② -
type S	-	-	-	-	-	-	1 ① - 2 ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
5.6	<b>252</b>	0.25	198	1.3	<b>0.33</b>	<b>265</b>	<b>B</b>		B-C	B-C		46	2.7	01
3.9	<b>360</b>	0.18	186	1.4	<b>0.26</b>	<b>265</b>	<b>B</b>		B-C	B-C		42	2.7	02
2.8	<b>504</b>	0.18	241	1.1	<b>0.20</b>	<b>265</b>	<b>B</b>		B-C	B-C		39	2.7	03
1.9	<b>756</b>	0.12	204	1.3	<b>0.16</b>	<b>265</b>	<b>B</b>		B-C	B-C		33	2.7	04
1.4	<b>1008</b>	0.12	256	1.0	<b>0.12</b>	<b>265</b>	<b>B</b>		B-C	B-C		31	2.7	05
1.1	<b>1332</b>	0.12*	265	<0.8	<b>0.10</b>	<b>265</b>	<b>B</b>		B-C	B-C		30	2.7	06
0.8	<b>1656</b>	0.12*	265	<0.8	<b>0.08</b>	<b>265</b>	<b>B</b>		B-C	B-C		28	2.7	07
0.6	<b>2160</b>	0.12*	265	<0.8	<b>0.07</b>	<b>265</b>	<b>B</b>		B-C	B-C		26	2.7	08
0.6	<b>2520</b>	0.12*	265	<0.8	<b>0.06</b>	<b>265</b>	<b>B</b>		B-C	B-C		25	2.7	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

\* 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** Unit 634 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.

**I** Il riduttore tipo 634 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 634 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 634 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 634 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.

**LUBRICATION 634 Oil** 0.40 Lt. 0.09 Lt.

**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 [N]	FR [N]
25	700	3800
15	800	4000

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [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



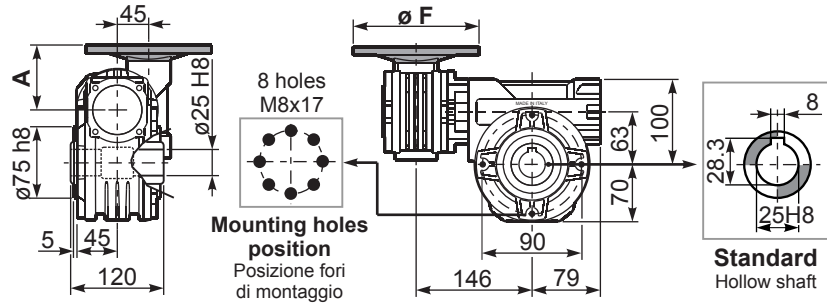
Rightangle - Gear  
**265Nm** **634**

3D dimensions on request

P634**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **8.90 kg**

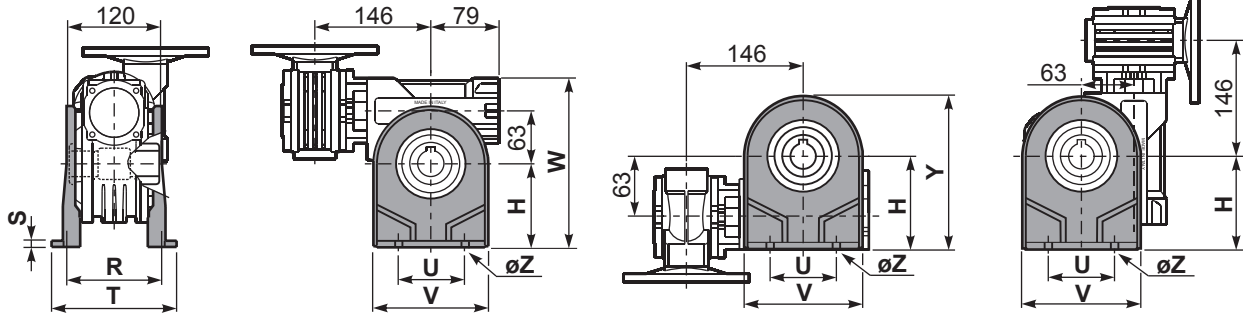
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	74
71B5	K050.4.042	160	71.5
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5



P634**PA**... Feet  
Piedini

P634**PB**... Feet  
Piedini

P634**PV**... Feet  
Piedini

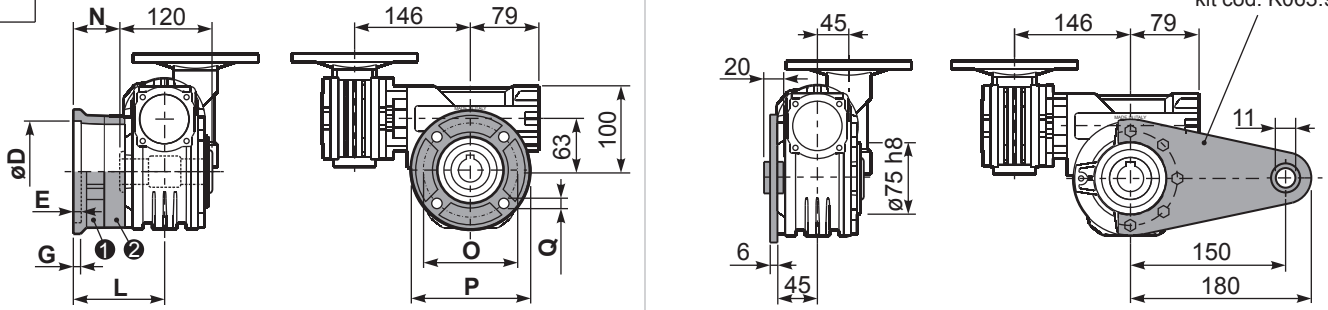


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

P634**FC**... Output flange  
Flangia uscita

P634**BR**... Reaction arm  
Braccio di reazione

kit cod. K063.9.027



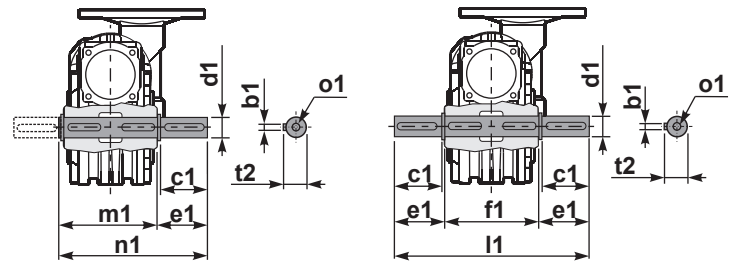
type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	86	26	150	175	11	① K063.9.010 ② -
FL	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① K063.9.010 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	102	42	165	200	13	① KS070.9.013 ② -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	82	22	130	160	10	① KS063.9.011 ② -

P634.....**S**... Single Shaft  
Albero lento semplice

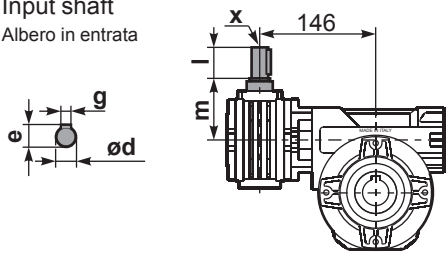
P634.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

R634**FB**... Input shaft  
Albero in entrata



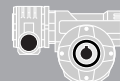
	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① K045.5.006 PAM71 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	ø1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-

# 6A3 Rightangle - Gear 63A+030

## 290Nm

Rating - Aluminum WORM GEARBOXES


**QUICK SELECTION / Selezione veloce**

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
5.6	<b>252</b>	0.18	142	2.0	<b>0.37</b>	<b>290</b>	B		B-C		46	2.7	01
3.9	<b>360</b>	0.18	181	1.6	<b>0.29</b>	<b>290</b>	B		B-C		41	2.7	02
2.6	<b>540</b>	0.18	245	1.2	<b>0.21</b>	<b>290</b>	B		B-C		37	2.7	03
1.9	<b>720</b>	0.12	200	1.4	<b>0.17</b>	<b>290</b>	B		B-C		34	2.7	04
1.3	<b>1080</b>	0.12	265	1.1	<b>0.13</b>	<b>290</b>	B		B-C		30	2.7	05
1.0	<b>1440</b>	0.12	318	0.9	<b>0.11</b>	<b>290</b>	B		B-C		27	2.7	06
0.5	<b>2745</b>	0.12*	242	<0.8	<b>0.06</b>	<b>242</b>	B		B-C		23	2.1	07

**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** Unit **6A3** 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.

**I** Il riduttore tipo **6A3** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **6A3** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **6A3** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **6A3** 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.

**LUBRICATION 6A3 Oil** 0.40 Lt. 0.03 Lt.

**Quantity 0.40/0.03 Lt.**

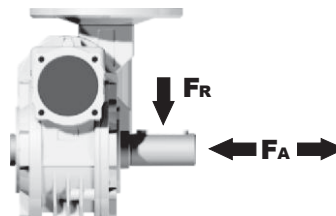
**AGIP** Telium VSF 320

**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**

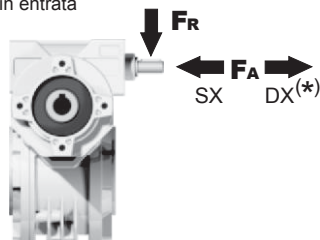
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	700	3800
<b>15</b>	800	4000

**Input shaft**

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	20	100

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

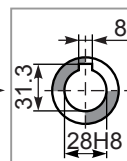
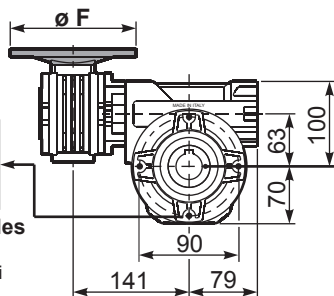
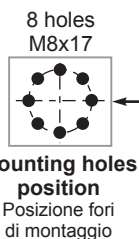
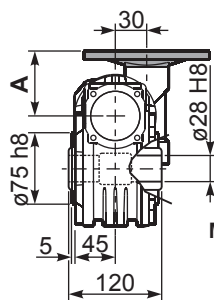
**tab. 2**

Rightangle - Gear  
**290Nm 6A3**

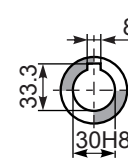
3D dimensions on request

**P6A3FB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



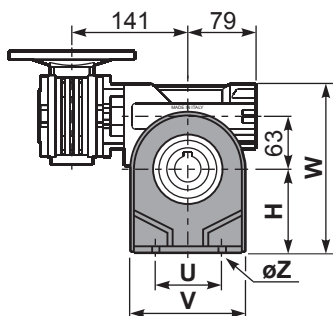
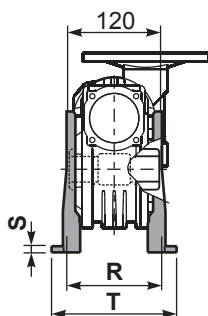
**Standard**  
Hollow shaft



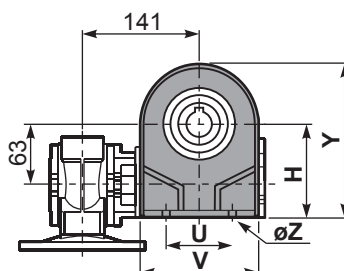
**On request**  
A richiesta

**Gearbox weight**  
peso riduttore **8.90 kg**

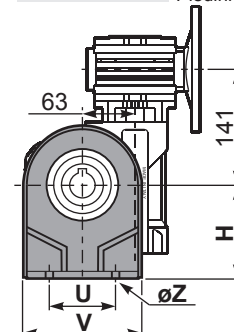
**P6A3PA...** Feet  
Piedini



**P6A3PB...** Feet  
Piedini

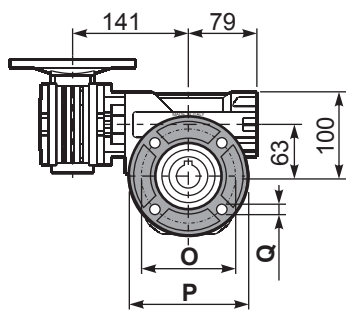
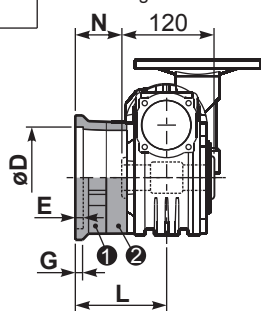


**P6A3PV...** Feet  
Piedini

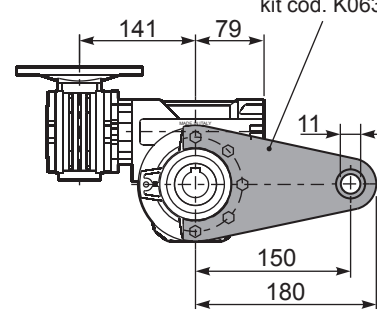
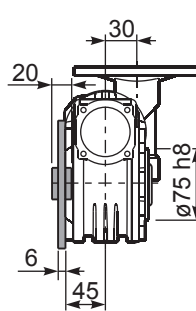


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P6A3FC...** Output flange  
Flangia uscita



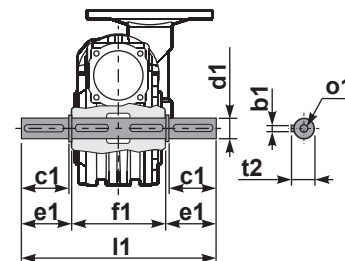
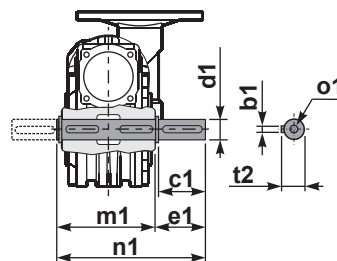
**P6A3BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	85	25	165	200	13	1 K070.9.010 2 -
FL	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	1 K070.9.010 2 K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	1 KS070.9.014 2 -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	1 KS063.9.013 2 -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	13.5	84.5	24.5	130	160	11	1 KS070.9.011 2 -

**P6A3....S...** Single Shaft  
Albero lento semplice

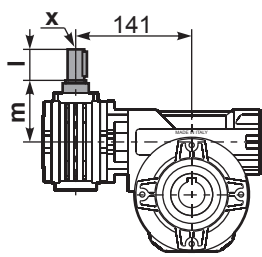
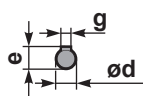
**P6A3....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K070.5.028 type B

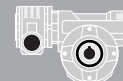
2 kit cod. K070.5.029 type B

**R6A3FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	1 K030.5.006 PAM63 2 -
type S	-	-	-	-	-	-	1 - 2 -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 <sup>-0.005</sup> / <sub>-0.020</sub>	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-


**QUICK SELECTION / Selezione veloce**

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
5.6	<b>252</b>	0.25	198	1.5	<b>0.38</b>	<b>304</b>	<b>B</b>		B-C	B-C		46	2.7	01
3.9	<b>360</b>	0.25	258	1.2	<b>0.29</b>	<b>304</b>	<b>B</b>		B-C	B-C		42	2.7	02
2.8	<b>504</b>	0.18	241	1.3	<b>0.23</b>	<b>304</b>	<b>B</b>		B-C	B-C		39	2.7	03
1.9	<b>756</b>	0.12	204	1.5	<b>0.18</b>	<b>304</b>	<b>B</b>		B-C	B-C		33	2.7	04
1.4	<b>1008</b>	0.12	256	1.2	<b>0.14</b>	<b>304</b>	<b>B</b>		B-C	B-C		31	2.7	05
1.1	<b>1332</b>	0.12	327	0.9	<b>0.11</b>	<b>304</b>	<b>B</b>		B-C	B-C		30	2.7	06
0.8	<b>1656</b>	0.12*	304	<0.8	<b>0.10</b>	<b>304</b>	<b>B</b>		B-C	B-C		28	2.7	07
0.6	<b>2160</b>	0.12*	304	<0.8	<b>0.08</b>	<b>304</b>	<b>B</b>		B-C	B-C		26	2.7	08
0.6	<b>2520</b>	0.12*	304	<0.8	<b>0.07</b>	<b>304</b>	<b>B</b>		B-C	B-C		25	2.7	09

**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** Unit **6A4** 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.

**I** Il riduttore tipo **6A4** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **6A4** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **6A4** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **6A4** 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.

**■ LUBRICATION 6A4 Oil** 0.40 Lt. 0.09 Lt.

**Quantity 0.40/0.09 Lt.**

<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

**■ RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	700	3800
15	800	4000

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	42	210

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

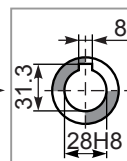
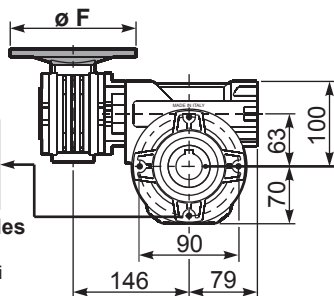
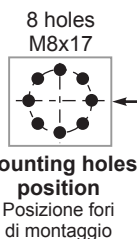
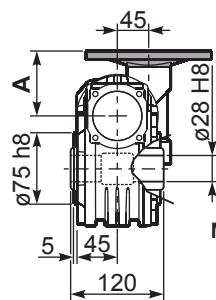
tab. 2

Rightangle - Gear  
**304Nm** **6A4**

3D dimensions on request

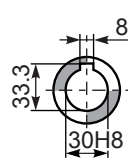
**P6A4FB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
63B5	K050.4.041	138	74
71B5	K050.4.042	160	71.5
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5



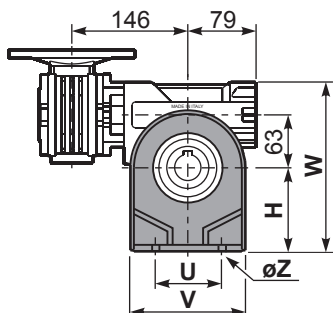
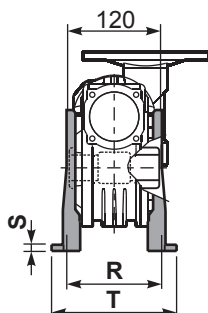
**Standard**  
Hollow shaft

**Gearbox weight**  
peso riduttore **8.90 kg**

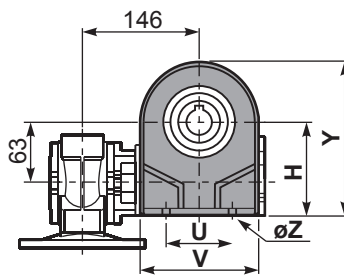


**On request**  
A richiesta

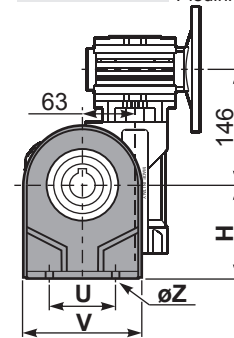
**P6A4PA...** Feet  
Piedini



**P6A4PB...** Feet  
Piedini

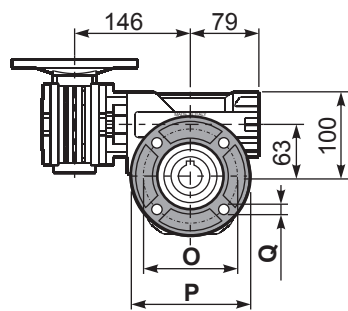
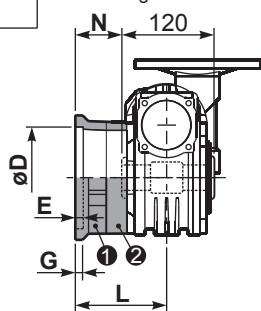


**P6A4PV...** Feet  
Piedini

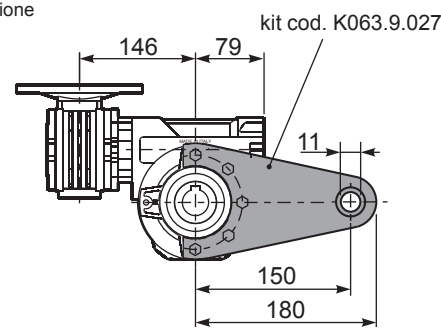
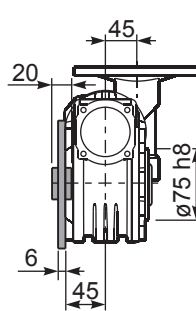


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P6A4FC...** Output flange  
Flangia uscita



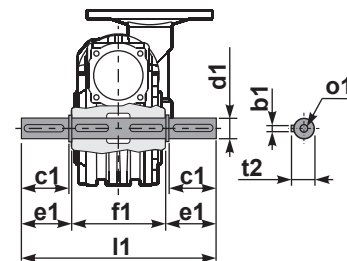
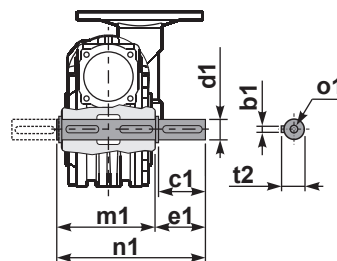
**P6A4BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	85	25	165	200	13	① K070.9.010 ② -
FL	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	① K070.9.010 ② K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	① KS070.9.014 ② -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	13.5	84.5	24.5	130	160	11	① KS070.9.011 ② -

**P6A4....S...** Single Shaft  
Albero lento semplice

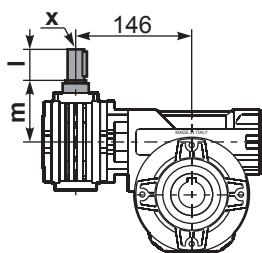
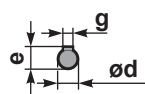
**P6A4....D...** Double Shaft  
Albero lento bisp.



① kit cod. K070.5.028 type B

② kit cod. K070.5.029 type B

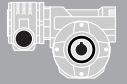
**R6A4FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① K045.5.006 PAM71 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 <sup>-0.005</sup> / <sub>-0.020</sub>	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-




**QUICK SELECTION / Selezione veloce**

 input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code 
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
10	<b>140</b>	0.37	205	1.8	<b>0.66</b>	<b>368</b>	<b>B</b>		B-C	B-C		58	4.5	01
7.1	<b>196</b>	0.37	257	1.4	<b>0.53</b>	<b>368</b>	<b>B</b>		B-C	B-C		52	4.7	02
5.0	<b>280</b>	0.37	332	1.6	<b>0.58</b>	<b>518</b>	<b>B</b>		B-C	B-C		47	4.7	03
3.6	<b>392</b>	0.37	435	1.2	<b>0.44</b>	<b>518</b>	<b>B</b>		B-C	B-C		44	4.7	04
2.4	<b>588</b>	0.25	371	1.4	<b>0.35</b>	<b>518</b>	<b>B</b>		B-C	B-C		37	4.7	05
1.8	<b>784</b>	0.25	455	1.1	<b>0.28</b>	<b>518</b>	<b>B</b>		B-C	B-C		34	4.7	06
1.4	<b>1036</b>	0.18	420	1.2	<b>0.22</b>	<b>518</b>	<b>B</b>		B-C	B-C		33	4.7	07
1.1	<b>1288</b>	0.18	474	1.1	<b>0.20</b>	<b>518</b>	<b>B</b>		B-C	B-C		30	4.7	08
0.7	<b>1960</b>	0.12	449	1.2	<b>0.14</b>	<b>518</b>	<b>B</b>		B-C	B-C		28	4.7	09
0.5	<b>2856</b>	0.12	584	0.9	<b>0.11</b>	<b>518</b>	<b>B</b>		B-C	B-C		25	4.7	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

**EN** Unit **854** 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.

**I** Il riduttore tipo **854** 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.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **854** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **854** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **854** 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.

**LUBRICATION 854 Oil** **1.2 Lt.** **0.09 Lt.**  
**Quantity 1.2/0.09 Lt.**

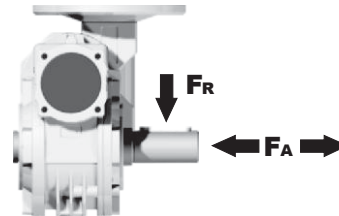
**AGIP** Telium VSF 320

**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**

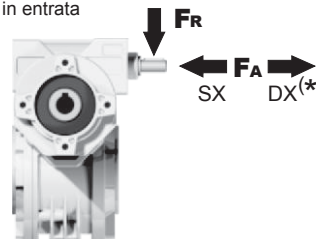
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	1000	5000
<b>15</b>	1160	5800

**Input shaft**

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	42	210

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

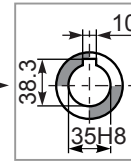
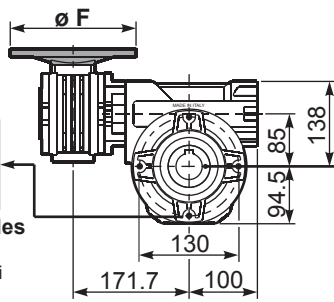
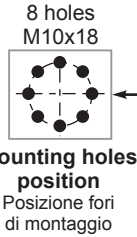
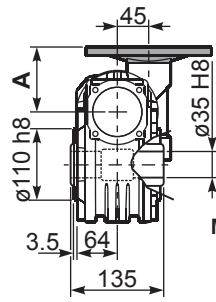
**tab. 2**

Rightangle - Gear  
**518Nm 854**

3D dimensions on request

**P854FB...** Basic wormbox  
Riduttore base

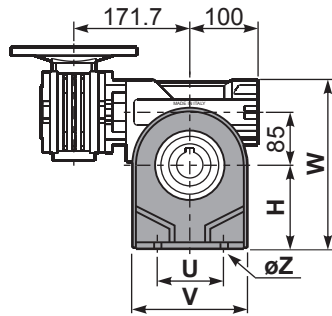
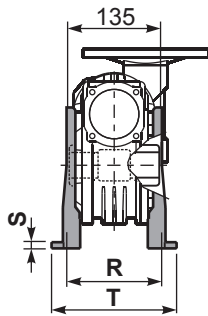
M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	74
<b>71B5</b>	K050.4.042	160	71.5
<b>56B14</b>	KC40.4.049	80	71.5
<b>63B14</b>	K050.4.047	90	74
<b>71B14</b>	K050.4.045	105	71.5



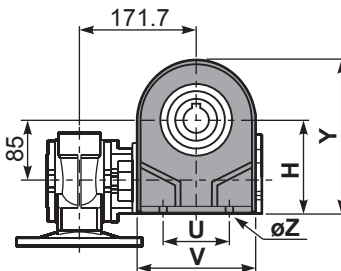
**Standard**  
Hollow shaft

Gearbox weight  
peso riduttore **19.50 kg**

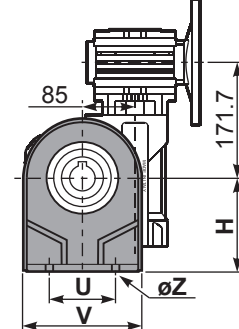
**P854PA...** Feet  
Piedini



**P854PB...** Feet  
Piedini

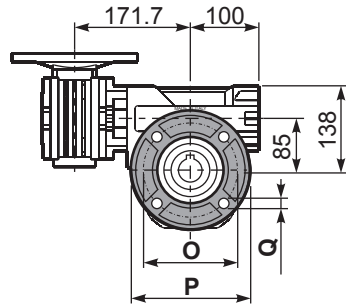
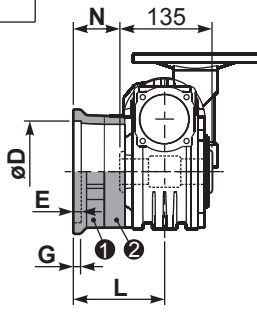


**P854PV...** Feet  
Piedini

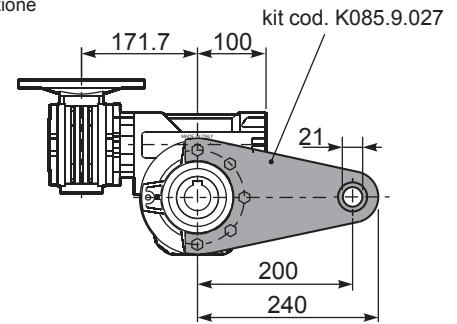
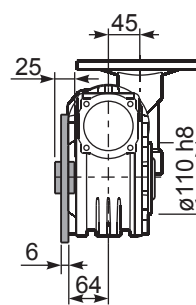


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	142	145	5	182	140	180	236.5	280	ø10.5	K085.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P854FC...** Output flange  
Flangia uscita



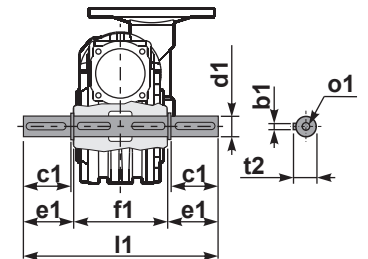
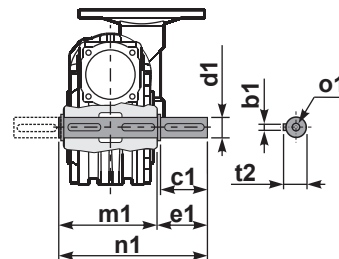
**P854BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	1 K085.9.010 2 -
<b>FL</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	1 K085.9.010 2 K085.0.201
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.040</sup> / <sub>0</sub>	5	13	117.5	50	165	200	11.5	1 KS085.9.012 2 -
<b>F2</b>	152 <sup>+0.06</sup> / <sub>0</sub>	5	15	147.5	80	180	205	12.5	1 KS085.9.013 2 -
<b>F4</b>	130 <sup>+0.040</sup> / <sub>0</sub>	5	13	106.5	39	165	200	13	1 KS085.9.015 2 -

**P854.....S...** Single Shaft  
Albero lento semplice

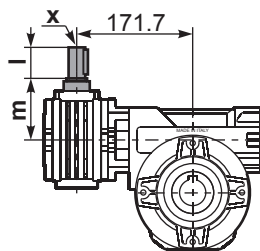
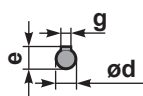
**P854.....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K085.5.028 type B

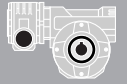
2 kit cod. K085.5.029 type B

**R854FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	1 K045.5.006 PAM71 2 -
type S	-	-	-	-	-	-	1 - 2 -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	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]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-D	-O	-P	-Q	-R			
							63	71	80	56	63	71	80			
6.7	<b>210</b>	0.75	591	1.5	<b>1.1</b>	<b>863</b>	B	B			B-C	B		55	5.6	01
4.7	<b>300</b>	0.75	752	1.3	<b>0.97</b>	<b>978</b>	B	B			B-C	B		49	5.6	02
3.3	<b>420</b>	0.55	741	1.3	<b>0.73</b>	<b>978</b>	B	B			B-C	B		47	5.6	03
2.6	<b>540</b>	0.55	851	1.1	<b>0.63</b>	<b>978</b>	B	B			B-C	B		42	5.6	04
1.8	<b>780</b>	0.37	748	1.3	<b>0.48</b>	<b>978</b>	B	B			B-C	B		38	5.6	05
1.3	<b>1080</b>	0.37	1009	1.0	<b>0.36</b>	<b>978</b>	B			B-C	B-C			37	5.6	06
1.1	<b>1290</b>	0.25	770	1.3	<b>0.32</b>	<b>978</b>	B			B-C	B-C			35	5.6	07
0.8	<b>1800</b>	0.25	921	1.1	<b>0.27</b>	<b>978</b>	B			B-C	B-C			30	5.6	08
0.7	<b>2040</b>	0.18	751	1.3	<b>0.23</b>	<b>978</b>	B			B-C	B-C			30	5.6	09
0.6	<b>2400</b>	0.18	825	1.2	<b>0.21</b>	<b>978</b>	B			B-C	B-C			28	5.6	10
0.5	<b>3000</b>	0.18	958	1.0	<b>0.18</b>	<b>978</b>	B			B-C	B-C			26	5.6	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 115 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a type that are closed. Gearbox 050 is supplied lubricated for life. See tab.1 for oils and recommended quantity. In tab.2 there are radial loads and axial loads applicable to the gearbox.

**I** Il riduttore tipo 115 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Il riduttore 050 è fornito lubrificato a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 115 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Das Getriebe der Baugröße 050 ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 115 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le réducteur de type 050 est fourni lubrifié à vie avec de l'huile synthétique. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño 115 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. El reductor 050 se suministra lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

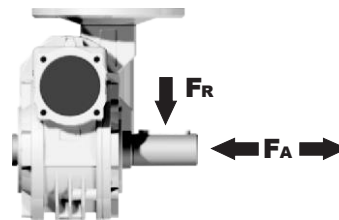
B3	B6	B7	B8	V5	V6
2.0/0.14 LT	1.35/0.14 LT	1.35/0.14 LT	2.0/0.14 LT	2.0/0.14 LT	2.0/0.14 LT

AGIP Blasias 460

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

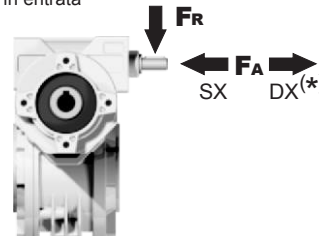
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	1200	6000
15	1400	7000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	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

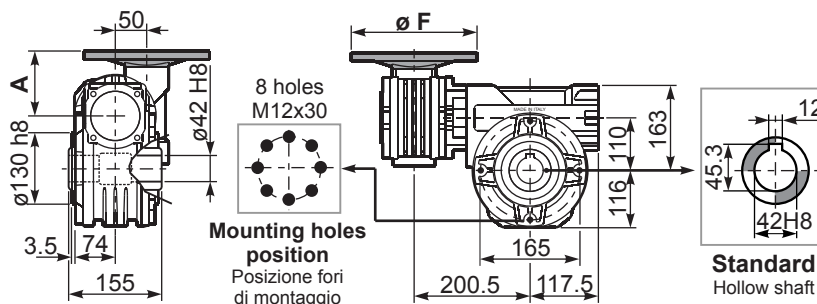
**tab. 2**

Rightangle - Gear  
**978Nm 115**

3D dimensions on request

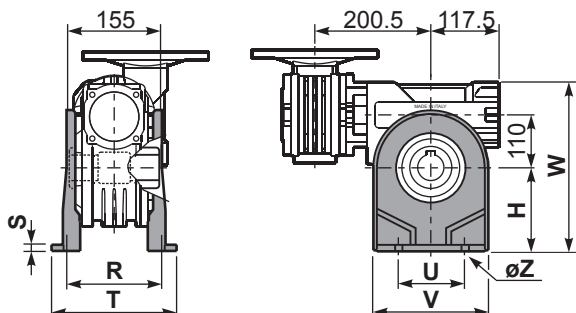
**P115FB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	78.5
<b>71B5</b>	K050.4.042	160	76
<b>80B5</b>	K050.4.043	200	76.5
<b>56B14</b>	KC40.4.049	80	76
<b>63B14</b>	K050.4.047	90	78.5
<b>71B14</b>	K050.4.045	105	76
<b>80B14</b>	K050.4.046	120	76.5

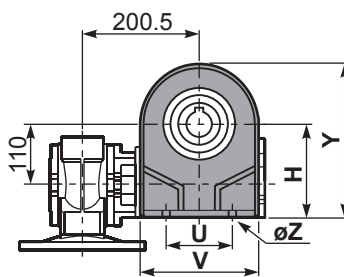


Gearbox weight  
peso riduttore **38.00 kg**

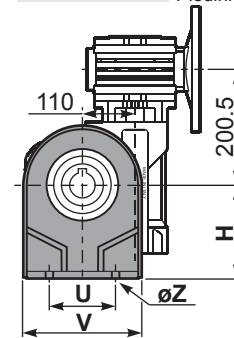
**P115PA...** Feet  
Piedini



**P115PB...** Feet  
Piedini

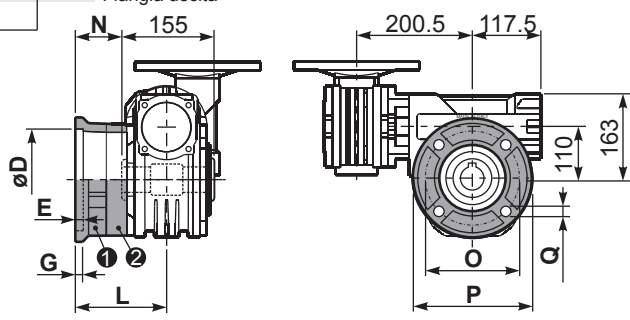


**P115PV...** Feet  
Piedini



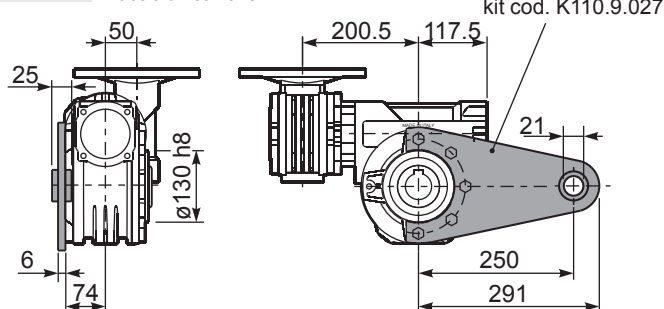
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	22	224	200	240	286	333	ø13	K110.9.022
type S	172	160	8	204	200	240	288	335	ø14	KS110.9.023

**P115FC...** Output flange  
Flangia uscita

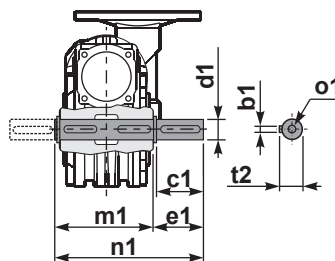


type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	131.5	54	230	270	13	① K110.9.010 ② -
<b>FL</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	179.5	102	230	270	13	① K110.9.011 ② -
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	150	72.5	215	250	15	① KS110.9.014 ② -
<b>F2</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	9.5	15	178	100.5	230	270	13	① KS110.9.012 ② -
<b>F3</b>	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	130	52.5	215	250	15	① KS110.9.013 ② -

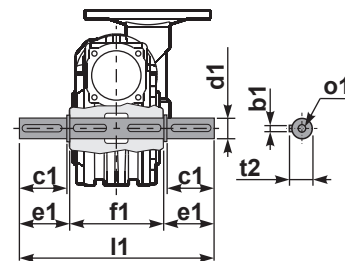
**P115BR...** Reaction arm  
Braccio di reazione



**P115....S...** Single Shaft  
Albero lento semplice



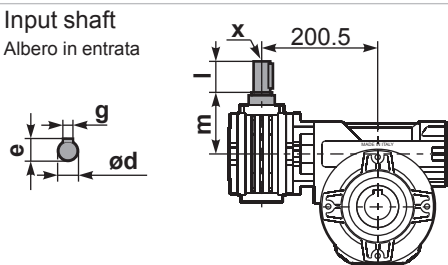
**P115....D...** Double Shaft  
Albero lento bisp.



① kit cod. K110.5.028 type B

② kit cod. K110.5.029 type B

**R115FB...** Input shaft  
Albero in entrata



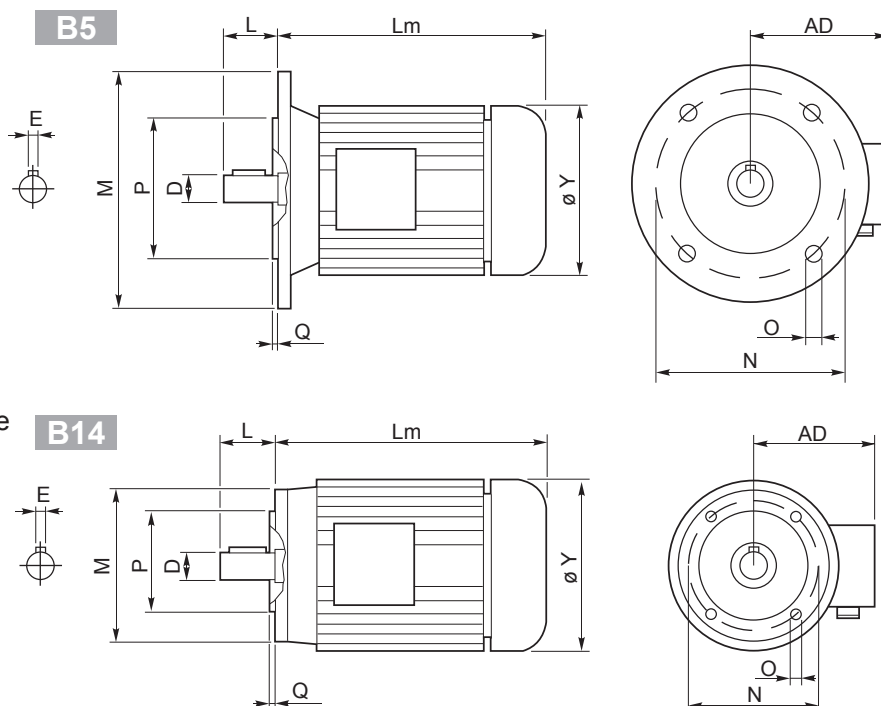
	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	74.5	M6x16	① K050.5.006 PAM71 ② K050.5.007 PAM80
type S	14 h6	16	5	30	74.5	M5x10	① KS050.5.008 PAM71 ② KS050.5.009 PAM80

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 <sup>-0.005</sup> / <sub>-0.020</sub>	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-



- 1) 230/400V - 50Hz three-phase asynchronous induction motor
- 2) Class F insulation
- 3) S1 duty
- 4) IP 55 protection
- 5) Not painted
- 6) Hard plastic sleeve to protect output shaft during the transportation

- 1) 230/400V - 50Hz motore trifase asincrono
- 2) Isolamento Classe F
- 3) S1 servizio continuo
- 4) Protezione IP 55
- 5) Non verniciato
- 6) Manicotto di protezione per l'albero motore

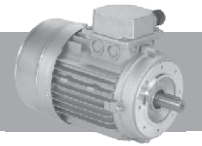


Outside dimensions and weight may be different according to manufacturers.

Le dimensioni esterne e il peso sono indicative, possono variare tra i vari costruttori.

	2 poli / poles			4 poli / poles			6 poli / poles			B5-B14					B5					B14					Kg	
	kW	Nm	A (400V)	kW	Nm	A (400V)	kW	Nm	A (400V)	D	E	L	Lm	Y	AD	P	N	M	O	Q	P	N	M	O		Q
56 A	0.09	0.32	0.38	0.06	0.44	0.27	—	—	—	9	3	20	179	108	96	80	100	120	7	2.5	50	65	80	M5	2.5	2.7
56 B	0.12	0.42	0.46	0.09	0.67	0.37	—	—	—																	2.9
63 A	0.18	0.63	0.60	0.12	0.84	0.50	0.09	0.99	0.57	11	4	23	185	120	99	95	115	140	9.5	3	60	75	90	M5	2.5	3.8
63 B	0.25	0.87	0.76	0.18	1.30	0.69	0.12	1.32	0.74																	4.2
71 A	0.37	1.30	1.00	0.25	1.70	0.91	0.18	1.90	0.80	14	5	30	-	130	104	110	130	160	9.5	3.5	70	85	105	M6	2.5	5.9
71 B	0.55	1.90	1.54	0.37	2.52	1.14	0.25	2.72	1.10				225	141	107											6.5
80 A	0.75	2.60	1.85	0.55	3.77	1.51	0.37	3.84	1.18	19	6	40	256	159	127	130	165	200	11.5	3.5	80	100	120	M6	3	8.5
80 B	1.1	3.90	2.64	0.75	5.11	2.57	0.55	5.84	1.80																	10
90 S	1.5	5.00	3.31	1.1	7.45	2.78	0.75	7.92	2.32	24	8	50	-	170	135	130	165	200	11.5	3.5	95	115	140	M8	3	12.5
90 L	2.2	7.50	4.46	1.5	10.2	3.61	1.1	11.6	3.45				280													15
100 LA	3.0	10.0	6.28	2.2	14.8	5.07	1.5	15.4	3.88																	20
100 LB	—	—	—	3.0	20.1	6.66	—	—	—	28	8	60	-	190	148	180	215	250	13	4	110	130	160	M8	3.5	22
112 M	4.0	13.4	8.10	4.0	26.7	8.55	2.2	22.6	5.30				321	210	164											35
132 S	5.5	18.3	11.2	5.5	36.5	11.4	3.0	30.2	7.20	38	10	80	375	244	180	230	265	300	14	4	130	165	200	M10	4	41
	7.5	24.9	15.3																							51
132 M	—	—	—	7.5	49.4	15.0	4.0	40.0	9.13	42	12	110	420	335	246	250	300	350	18	5	—	—	—	—	—	51
	9	61.4	18.5	51																						
160 M	—	—	—	11	72	21.5	—	—	—	42	12	110	503	335	246	250	300	350	18	5	—	—	—	—	—	79.2
160 L	—	—	—	15	98	29	—	—	—				547													97.5
180 M	—	—	—	18.5	121	35.5	—	—	—	48	14	110	602	366	266	250	300	350	19	5	—	—	—	—	—	170
180 L	—	—	—	22	144	42	—	—	—																	
200 L	—	—	—	30	196	53	—	—	—	55	16	110	670	405	341	300	350	400	19	5	—	—	—	—	—	240
225 S	—	—	—	37	240	69	—	—	—	60	18	140	748	463	360	350	400	450	19	5	—	—	—	—	—	305
225 M	—	—	—	45	292	84	—	—	—																	310




**Protection**

Standard IP55  
Please specify on purchase orders if you need a higher IP protection class.

**Grado di protezione**

IP55 Standard  
Specificare in sede di ordinazione per IP superiore.

**Schutzart**

IP55 Standard.  
Höheren IP Grad bitte im Auftrag angeben.

**Degré de protection**

IP55 standard.  
Au moment de la commande, spécifiez si vous souhaitez IP supérieur.

**Grado de protección**  
IP55 standard.  
Especificar en el pedido cuando necesiten protección IP superior.

**Insulation**

Standard CI.F  
To be specified upon placing the order if different insulation is required.

**Isolamento**

CI.F Standard  
Specificare in sede di ordinazione classe di isolamento diversa.

**Isolierung**

CI.F Standard.  
Davon abweichende Isolierungsklasse im Auftrag angeben.

**Isolement**

CI.F Standard.  
Au moment de la commande, spécifiez si vous souhaitez une classe d'isolement différente.

**Aislamiento**

CI.F standard.  
Especificar al efectuar el pedido la clase diferente de aislamiento.

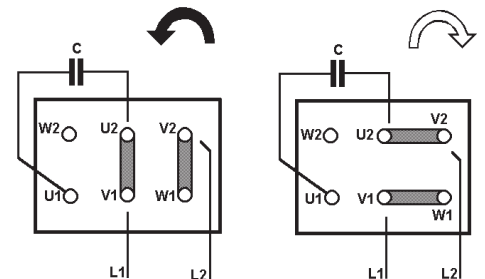
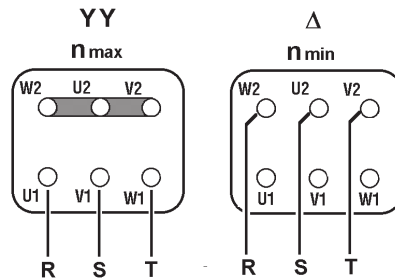
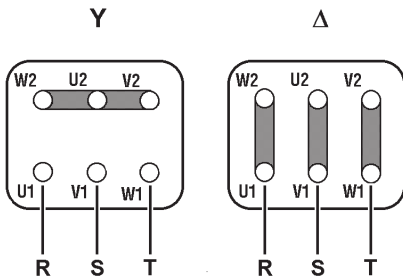
Insulation / Isolamento Isolierung /Aislamiento		E	B	F	H
Max. temp.	C°	120°	130°	155°	175°
	F*	248°	266°	311°	347°

**Connections**
**Collegamenti**
**Verbindungselemente**
**Branchements**
**Conexiones**

Threephase asynchronous single polarity  
Asincrono trifase singola polarità  
Asynchronmotor 3-ph eine Drehzahl  
Moteur triphasé à une vitesse  
Asincrono trifasico de una velocidad

Threephase asynchronous double polarity  
Asincrono trifase doppia polarità  
Asynchronmotor 3-ph doppelte Drehzahl  
Moteur triphasé à deux vitesses  
Asincrono trifasico de dos velocidades

Single phase asynchronous  
Asincrono monofase  
Einphasen-Asynchronmotor  
Moteur monophasé  
Asincrono monofasico





# Suministros Industriales del Tajo, S.A.

C/ Jarama 52, Polígono Industrial, 45007 Toledo (Spain)

Telf: (34) 925 23 22 00

Fax: (34) 925 23 21 47

[sitasa@sitasa.com](mailto:sitasa@sitasa.com)

[www.sitasa.com](http://www.sitasa.com)

