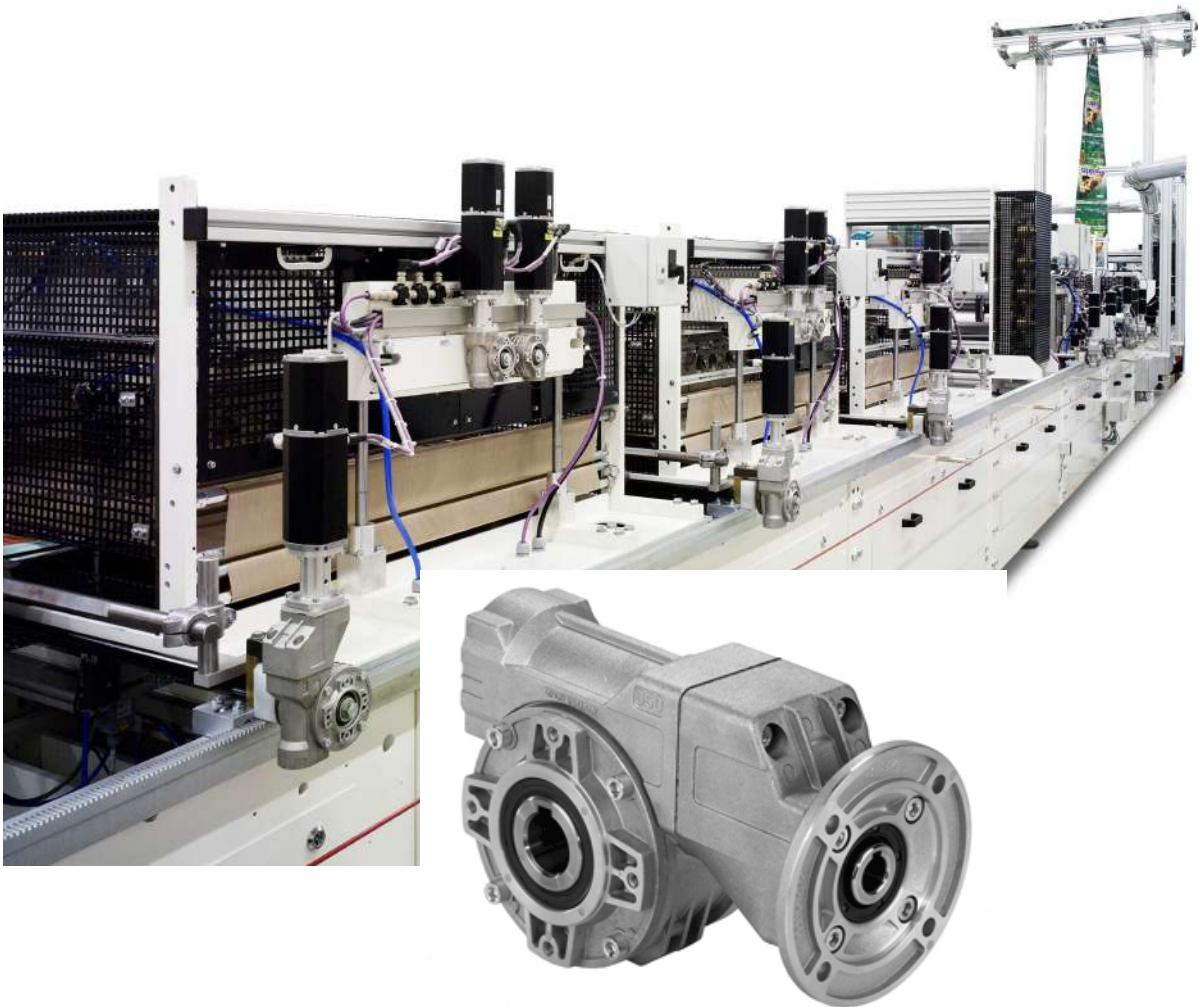


Schneckengetriebe / Worm gearbox

MS HY 030 – 115



Worm gearboxes type 030 ÷ 110

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.

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.

Oversize bearing

For radial load capability and maximum hollow output shaft diameter.

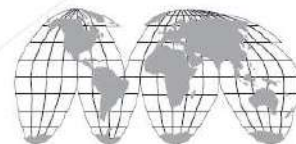
Vent Free Design.

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

oil free



vent free



World wide sales network.






MSF-Vathauer Antriebstechnik GmbH & Co KG Am Hessentuch 6-8 32758 Detmold

Tel: +49 (0)5231 – 66193 + 63030 Fax: +49 (0)5231 – 66856

Email: info@msf-technik.de www.msf-technik.de

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For : / Per : / Für : / Para :

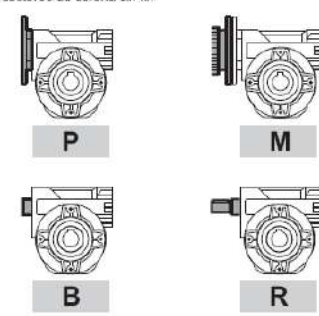
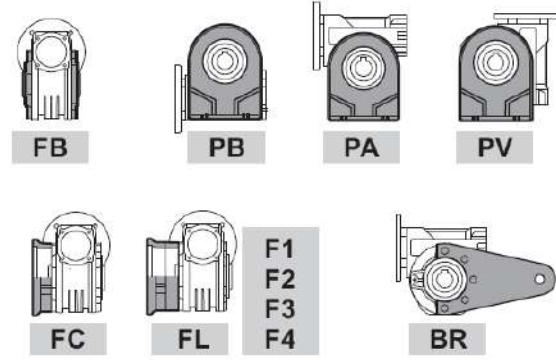
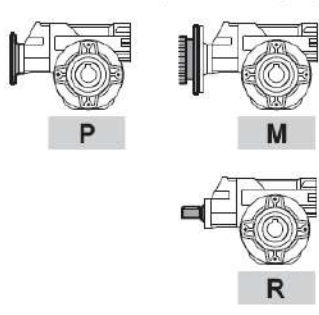
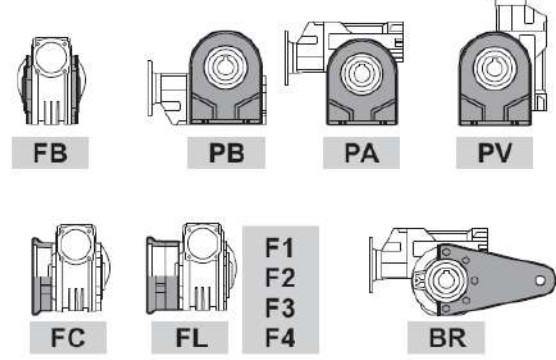
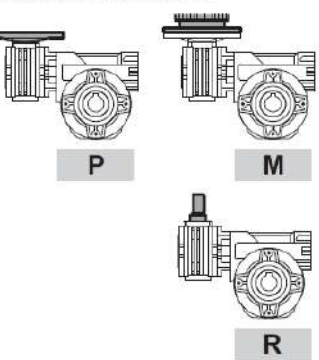
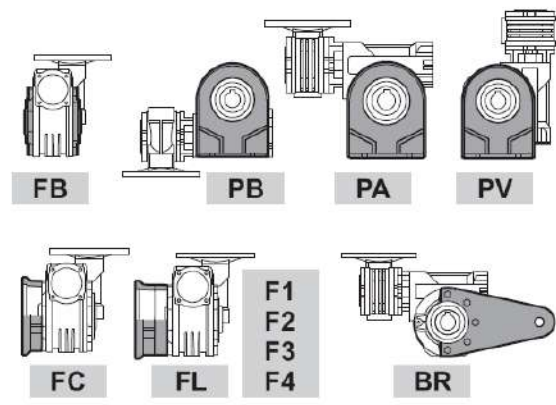
- Selection guide - fs**
Guida alla selezione
- Mounting pos. - Lubrication**
Pos. di montaggio - lubrificazione
- 2 - 6 poles selection**
Selezione 2 - 6 poli
- Radial - axial loads**
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- Installation and maintenance**
Installazione, uso e manutenzione
- Spare parts list**
Liste parti di ricambio

See on our web site
www.hydromec.com
just click on the product
family button



CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICACIÓN

Type - Tipo - Typ - Tipo	Size - Grandezza Größe - Tamaño	Mounting - Montaggio - Montage - Tipo de montaje
P	045	PA
<p>Worm gearboxes Riduttori a vite senza fine Schneckengetriebe Reductores de corona sin fin</p>  <p>P M B R</p>	<p>030 045 050 063 63A 085 110</p>	 <p>FB PB PA PV FC FL F1 F2 F3 F4 BR</p>
<p>Worm gearboxes with primary reduction Riduttori a vite senza fine con precoppia Schneckengetriebe mit Stirradelufe am Eintrieb Reductores corona sin fin con prereductora de engranajes</p>  <p>P M R</p>	<p>P45 P50 P63 P6A P85 P10</p>	 <p>FB PB PA PV FC FL F1 F2 F3 F4 BR</p>
<p>Combined worm gearboxes Riduttori a vite senza fine combinati Schneckengetriebekombinationen Reductores combinados corona sin fin</p>  <p>P M R</p>	<p>303 503 633 634 6A3 6A4 854 115</p>	 <p>FB PB PA PV FC FL F1 F2 F3 F4 BR</p>



A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX

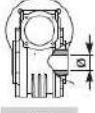
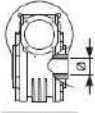



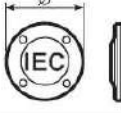




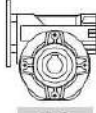

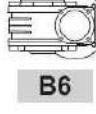
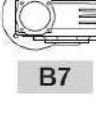


On request we can deliver our products according to the ATEX

Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern

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



Schneckengetriebe / Worm gearboxes

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICACIÓN							
Ratio - Rapporto Untersetzung Relación	Hub - Mozzo corona Hohlwelle Nucleo corona	Output shaft Albero lento Abtriebswelle Eje solida	Motor size Grandezza motore Motor Größe Tamaño motor	Terminal box position Posizione morsetiera Klemmkastenlage Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Posición de montaje	Reduced Input bore Foro entrata ridotto	Mountin position Esecuzione montaggio Einbaulage Posición de montaje
10	C	Q	Q	B	B3	-	---
<p>See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten. Ver tabla datos técnicos</p>	 <p style="text-align: center;">C</p> <p style="text-align: center;">STANDARD</p> <p>030 ⇨ ø14 045 ⇨ ø18 050 ⇨ ø25 063 ⇨ ø25 63A ⇨ ø28 085 ⇨ ø35 110 ⇨ ø42</p> <p style="text-align: center;">I</p> <p style="text-align: center;">Stainless steel hub Mozzo in acciaio inox</p> <p style="text-align: center;">Special series Serie Speciale</p> <p style="text-align: center;">S</p> <p>045 ⇨ ø19 050 ⇨ ø24</p> <p style="text-align: center;">X</p> <p style="text-align: center;">Mozzo in acciaio inox Stainless steel hub</p>  <p style="text-align: center;">U</p> <p style="text-align: center;">INCH</p> <p>045 ⇨ ø0.750" 050 ⇨ ø1.000" 063 ⇨ ø1.125" 085 ⇨ ø1.500"</p>	 <p style="text-align: center;">Q</p>  <p style="text-align: center;">S</p>  <p style="text-align: center;">D</p>	 <p style="text-align: center;">M</p> <p style="text-align: center;">without flange Senza flangia</p> <p style="text-align: center;">B5</p> <p>A=56 (ø120) B=63 (ø140) C=71 (ø160) D=80 (ø200) E=90 (ø200) F=100+112 (ø250)</p> <p style="text-align: center;">B14</p> <p>O=56 (ø80) P=63 (ø90) Q=71 (ø105) R=80 (ø120) T=90 (ø140) U=100+112 (ø160)</p> <p style="text-align: center;">0=Type R</p> <p style="text-align: center;">Reduced Fl.</p> <p>1=56B5/ø11 2=63B5/ø14 3=71B5/ø19 4=71B5/ø24 5=90B5/ø28 6=100B5/ø38 7=132B5/ø42 8=80B14/ø11 9=100B5/ø24</p>	 <p style="text-align: center;">A</p>  <p style="text-align: center;">B</p> <p style="text-align: center;">STANDARD</p>  <p style="text-align: center;">C</p>  <p style="text-align: center;">D</p>	 <p style="text-align: center;">B3</p>  <p style="text-align: center;">B8</p>  <p style="text-align: center;">B6</p>  <p style="text-align: center;">B7</p>  <p style="text-align: center;">V5</p>  <p style="text-align: center;">V6</p>	<p style="text-align: center;">-</p> <p style="text-align: center;">Nothing indication standard bore Nessuna indicazione foro standard</p> <p style="text-align: center;">P</p> <p style="text-align: center;">Input bore reduced one size Foro entrata ridotto di una misura</p> <p>Ex. Input Flange 71 B14 Standard ø14 Reduced ø11</p> <p style="text-align: center;">Q</p> <p style="text-align: center;">Input bore reduced two sizes Due grandezze ridotte foro entrata</p> <p>Ex. Input Flange 71 B14 Standard ø14 Reduced ø9</p>	<p style="text-align: center;">---</p> <p style="text-align: center;">Only for combined units See technical data table</p> <p style="text-align: center;">Solo per i riduttori combinati Vedi tabella dati tecnici.</p> <p style="text-align: center;">Ausführungen für Getriebekombinationen it.</p> <p style="text-align: center;">Solo para combinados ver tabla datos técnicos</p>



USEFUL FORMULAS / FORMULE UTILI / NÜTZLICHE FORMELN / FÓRMULAS ÚTILES

REQUIRED POWER / POTENZA RICHIESTA / ERFORDERLICHE LEISTUNG / POTENCIA NECESARIA

Lifting / sollevamento / hubantrieb / elevación

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

Rotation / rotazione / drehung / rotation

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

Linear movement / traslazione / linearbewegung / translacion

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

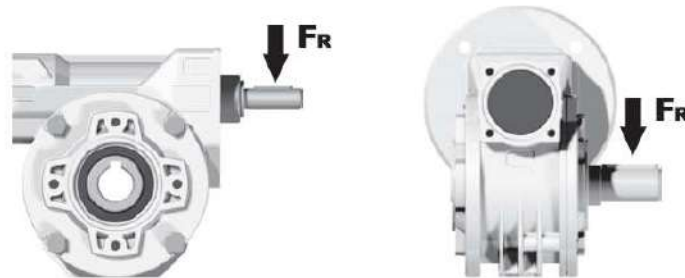
TORQUE / COPPIA / DREHMOMENT / PAR

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

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

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / 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.
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida

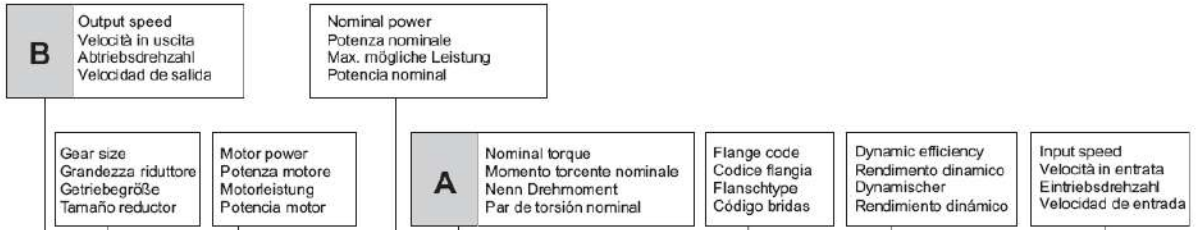


	$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$	$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$
M	Output torque / Momento torcente / Abtriebsdrehmoment / Par torsion	
d	Diam. of driving element / Diametro primitivo / Durchmesser der Abtriebseinheit / Diámetro primitivo	
f_k	Factor / Coefficiente di trasformazione / Faktor / Coefficiente de transmisión 1.15 Gearwheels / Ingranaggi / Zahnrad / Engranaje 1.25 Chain sprockets / Catena / Antriebskette / Cadena 1.75 Narrow v-belt pulley / Cinghia Trapezoidale / Keilriemen / Correa trapezoidal 2.50 Flat-belt pulley / Cinghia piatta / Flachzahnriem. / 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.
- 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 / Cómo seleccionar un reductor

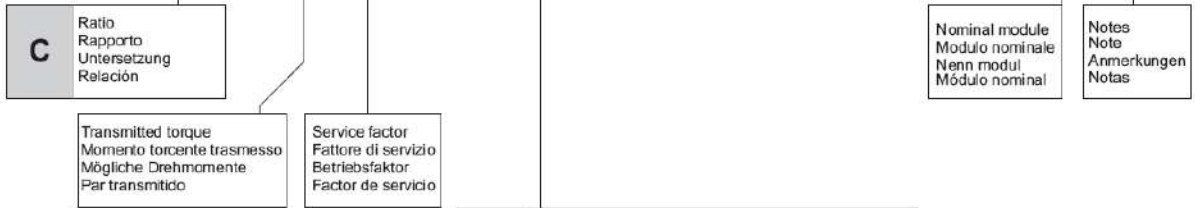


045 Rightangle - Gear **39Nm** Rating - Alluminum WORM GEARBOXES

QUICK SELECTION / Selezione veloce

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{1R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn	Ratios code
							B	C	O	P	Q			
200	7	0.37	14	2.1	0.76	29	B		B-C	B-C		80	2.2	01
140	10	0.37	20	1.5	0.54	29	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.1	0.39	29	B		B-C	B-C		77	2.4	03

input speed (n₁) = 1400 min⁻¹



D	Motor flange available Flange disponibili Erhältliche Motorflansche Bridas disponibles
B)	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montaje con casquillo de reducción
C)	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Posición agujeros brida / base motor
B)	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponibile también sin casquillo

A	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Seleccionar la velocidad de salida
C	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	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Seleccionar la brida disponible (sobre pedido)



030 Rightangle - Gear 20Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce							input speed (n ₁) = 1400 min ⁻¹						
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1W} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1N} [kW]	Nominal torque M _{2N} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							A	B	O	P			
280	5	0.18	5	3.2	0.57	16	B		B-C		82	1.26	01
200	7	0.18	7	2.3	0.42	16	B		B-C		80	1.44	02
140	10	0.18	10	1.7	0.30	16	B		B-C		78	1.44	03
93	15	0.18	13	1.3	0.24	18	B		B-C		73	1.44	04
70	20	0.18	17	1.0	0.19	18	B		B-C		70	1.09	05
47	30	0.12	15	1.3	0.16	20	B		B-C		62	1.44	06
35	40	0.12	19	1.0	0.12	19	B		B-C		57	1.09	07
23	61	0.09	19	1.0	0.09	19	B		B-C		50	0.72	08
17.5	80	0.09	16	1.0	0.06	15	B		B-C		48	0.56	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

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. [For complete documentation please visit our web site.](#)

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. [Per la documentazione completa consulta il nostro sito.](#)

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. [Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.](#)

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. [Para documentación completa, consultar nuestra Web.](#)

LUBRICATION 030 Oil Quantity 0.03 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft Albero di uscita			
n ₂ [min ⁻¹]	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 ⁻¹]	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



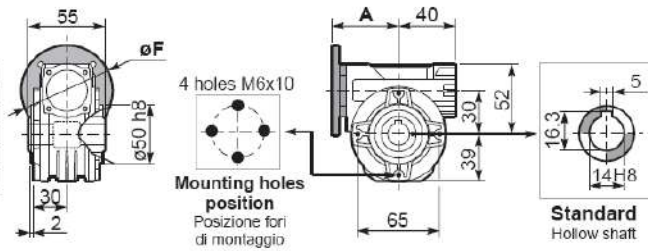
3D dimensions on the Web

Rightangle - Gear
20Nm 030

P030FB... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **1.05 kg**

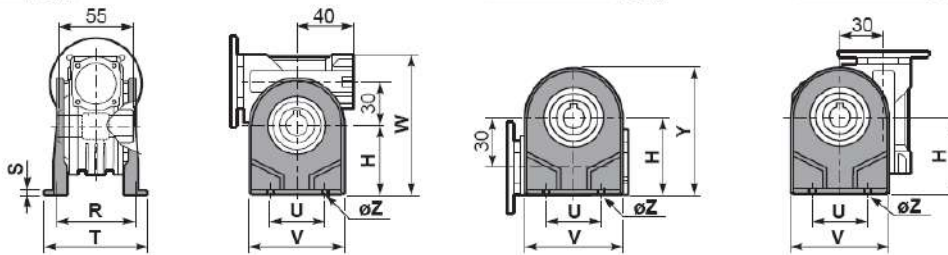
M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



P030PA... Feet
Piedini

P030PB... Feet
Piedini

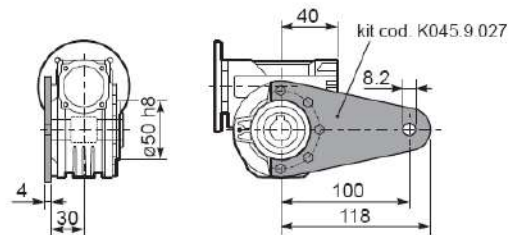
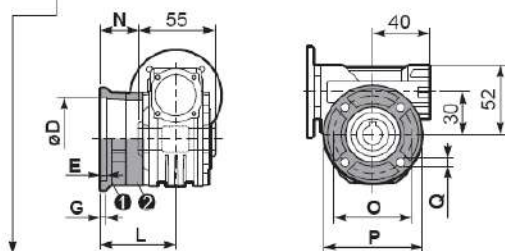
P030PV... Feet
Piedini



	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

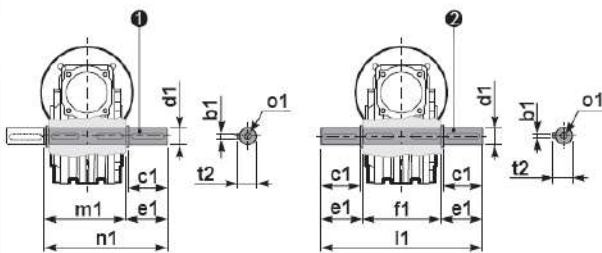
P030BR... Reaction arm
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	50 ^{+0.15} _{-0.05}	6	6	50.5	23	68	80	7	1 K030.9.010 2
FL	60 ^{+0.15} _{-0.05}	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
F1	40 ^{+0.15} _{-0.10}	3.5	5.5	49	21.5	56	80	6.5	1 KS030.9.012 2

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

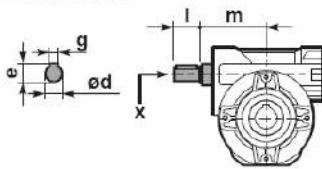
P030....D... Double Shaft
Albero lento bip.



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 ^{+0.008} _{-0.020}	35.5	55	126	59	94.5	15.8	M5x14
type S	-	-	-	-	-	-	-	-	-	-



045 Rightangle - Gear 39Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{M2} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{N2} [kW]	Nominal torque M_{2N} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	O	P	Q			
200	7	0.37	14	2.1	0.76	29	B		B-C	B-C		80	2.2	01
140	10	0.37	20	1.5	0.54	29	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.1	0.39	29	B		B-C	B-C		77	2.4	03
67	21	0.37	36	1.1	0.41	39	B		B-C	B-C		67	1.6	04
50	28	0.25	31	1.3	0.31	39	B		B-C	B-C		65	2.5	05
38	37	0.25	40	1.0	0.25	39	B		B-C	B-C		63	1.8	06
30	46	0.25	46	0.8	0.21	39	B		B-C	B-C		59	1.5	07
23	60	0.18	41	0.9	0.17	39	B		B-C	B-C		56	1.2	08
20	70	0.12	31	0.9	0.11	29	B		B-C	B-C		54	1.0	09
13.7	102	0.09*	28	<0.8	0.08	28	B		B-C	B-C		49	0.72	10

Motor Flanges Available Flange Motore Disponibili
 B) Supplied with Reduction Bushing Fornito con Bussole di Riduzione
 B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussoia 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_{2N}
 Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2N}

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

LUBRICATION 045 Oil Quantity 0.09 Lt.

AGIP	KLUBER	SHELL	MOBIL
Tellum VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
albero di uscita

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

Input shaft
albero in entrata

n_1 [min ⁻¹]	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

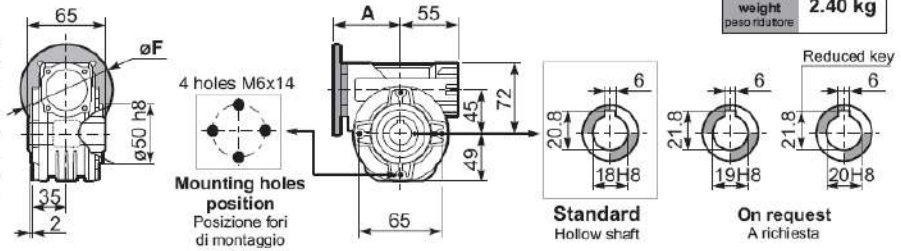


3D dimensions on the Web

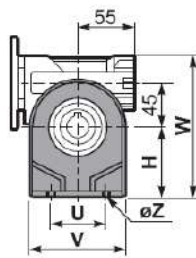
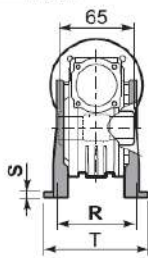
Rightangle - Gear **39Nm 045**

P045**FB**... Basic wormbox
Riduttore base

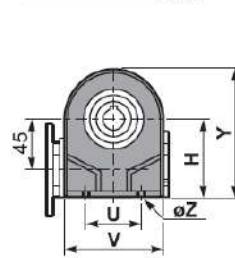
N. flanges	Kit code	øF	A
63B5	K050.4.041	138	72
71B5	K050.4.042	160	70
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5



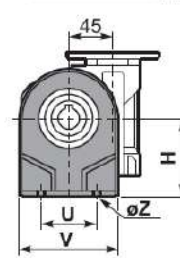
P045**PA**... Feet
Piedini



P045**PB**... Feet
Piedini

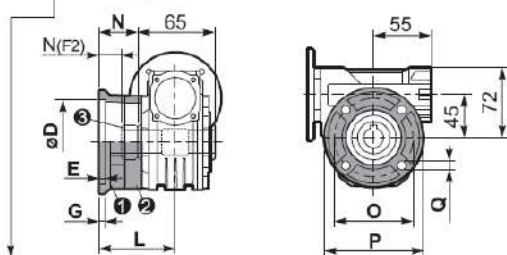


P045**PV**... Feet
Piedini



	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

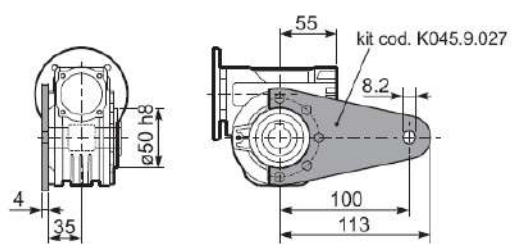
P045**FC**... Output flange
Flangia uscita



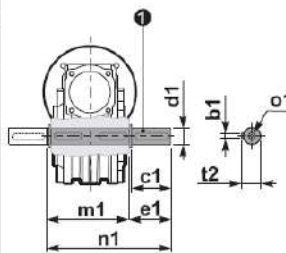
type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 ^{+0.15} / _{+0.05}	9	9	60.5	28	87	110	8.5	1 ① K045.9.010 2 ② -
FL	60 ^{+0.15} / _{+0.05}	9	9	90.5	58	87	110	8.5	1 ① K045.9.010 2 ② K045.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
F1	95 ^{+0.20} / _{+0.15}	4	11	73.5	41	115	140	9	1 ① KS045.9.013 2 ② -
F2	60 ^{+0.15} / _{+0.05}	9	9	60.5	19	87	110	8.5	1 ① KS045.9.010 2 ② S045.0.204
F3	80 ^{+0.15} / _{+0.10}	3	8	51.5	19	100	120	9	1 ① KS045.9.014 2 ② -

P045**BR**... Reaction arm
Braccio di reazione

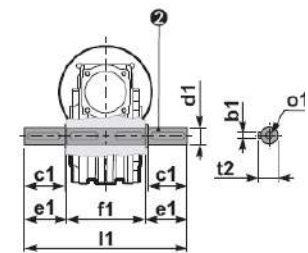


P045...**S**... Single Shaft
Albero lento semplice



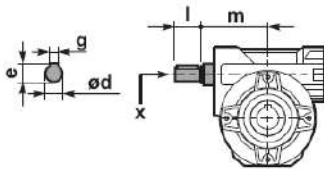
① kit cod. K045.5.028 type B
kit cod. KS045.5.030 type S

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



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

R045**FB**... Input shaft
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	1 ① K045.5.005 PAM71 2 ② -
type S	-	-	-	-	-	-	1 ① - 2 ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 ^{+0.020} / _{-0.020}	43	65	151	70	113	20.5	M6x18
type S	6	40	19 ^{+0.020} / _{-0.020}	58.8	65	182	70	128.5	21.5	M8x20



050 Rightangle - Gear

69Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce								input speed (n ₁) = 1400 min ⁻¹								
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{sw} [kW]	Output torque M _{sw} [Nm]	Service factor f.s.	Nominal power P _{re} [kW]	Nominal torque M _{re} [Nm]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	D	O	P	Q	R			
							63	71	80	56	63	71	80			
200	7	0.75	29	1.8	1.4	54	B	B			B-C	B		82	2.5	01
140	10	0.75	41	1.4	1.1	59	B	B			B-C	B		80	2.4	02
100	14	0.75	57	1.1	0.86	65	B	B			B-C	B		79	2.6	03
78	18	0.55	51	1.2	0.64	59	B	B			B-C	B		75	2.0	04
54	26	0.55	67	0.9	0.51	63	B	B			B-C	B		69	2.7	05
39	36	0.37	63	1.1	0.41	69	B			B-C	B-C			69	2.1	06
33	43	0.37	72	0.9	0.34	65	B			B-C	B-C			66	1.8	07
23	60	0.25	59	1.0	0.25	59	B			B-C	B-C			58	1.3	08
21	68	0.25	66	0.8	0.21	55	B			B-C	B-C			57	1.2	09
17.5	80	0.18	53	1.0	0.18	54	B			B-C	B-C			54	1.0	10
14	100	0.12	41	1.2	0.14	49	B			B-C	B-C			50	0.8	11

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

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

•LUBRICATION 050 Oil Quantity 0.14 Lt.

AGIP	KLUBER	SHELL	MOBIL
Talium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

•RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
200	240	1200
150	280	1400
100	300	1500
75	340	1700
50	380	1900
25	480	2500
15	560	2800

Input shaft
albero in entrata

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

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

tab. 2



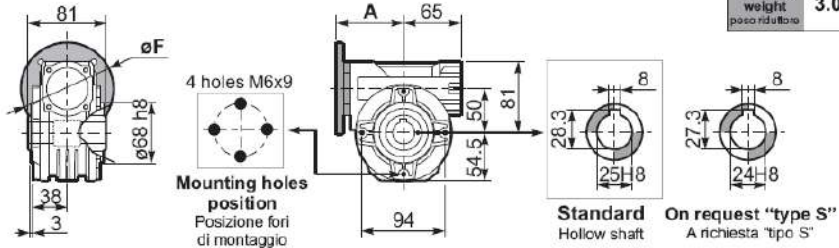
3D dimensions on the Web

Rightangle - Gear
69Nm **050**

P050**FB**... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **3.00 kg**

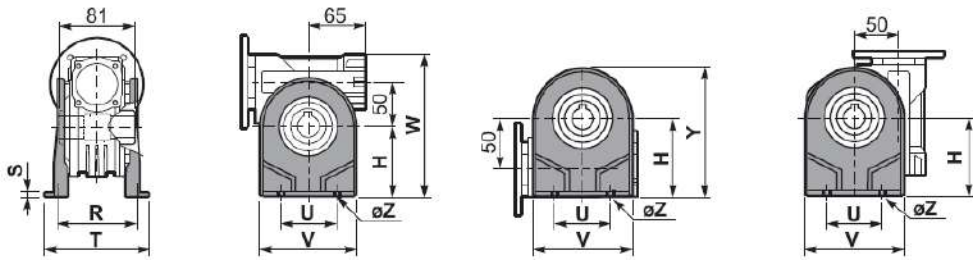
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	76.5
71B5	K050.4.042	160	74.5
80B5	K050.4.043	200	76.5
56B14	KC40.4.049	80	76
63B14	K050.4.047	90	78.5
71B14	K050.4.045	105	76
80B14	K050.4.046	120	76.5



P050**PA**... Feet
Piedini

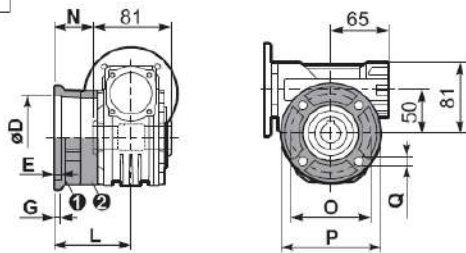
P050**PB**... Feet
Piedini

P050**PV**... Feet
Piedini



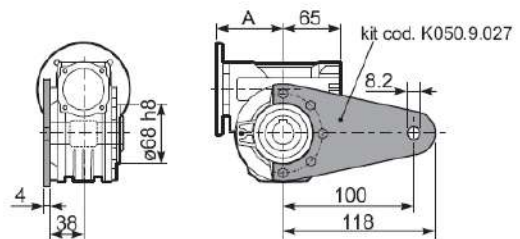
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	82	98.5	3.5	123	63	113	138.5	163	ø10.5	K050.9.022
type S	85	96	10	114	85	110	139.5	166	ø10	KS050.9.023

P050**FC**... Output flange
Flangia uscita



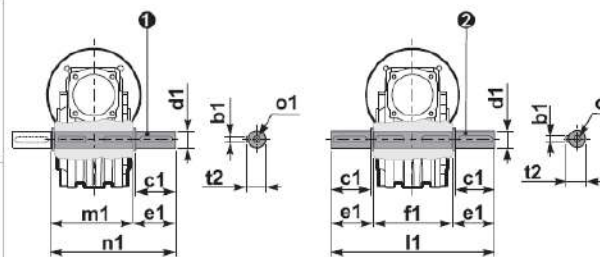
type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 ^{+0.20} _{-0.15}	9	12	85	44.5	90	123	10.5	1 K050.9.010 2
FL	70 ^{+0.20} _{-0.15}	9	12	114.5	74	90	123	10.5	1 K050.9.010 2 K050.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	110 ^{+0.20} _{+0.15}	4	11	83.5	43	130	160	10	1 KS050.9.012 2
F2	70 ^{+0.20} _{-0.15}	9	12	76.5	36	90	123	10.5	1 KS050.9.014 2
F3	95 ^{+0.20} _{-0.15}	4	10	66.5	26	115	140	10	1 KS050.9.013 2

P050**BR**... Reaction arm
Braccio di reazione



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

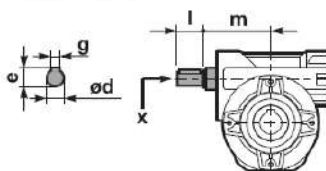
P050...**D**... Double Shaft
Albero lento bisp.



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

R050**FB**... 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 ^{-0.003} _{-0.020}	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 ^{-0.003} _{-0.020}	68.8	81	218	86.5	155	27	M8x20



063 Rightangle - Gear 140Nm

Rating - Aluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce								input speed (n ₁) = 1400 min ⁻¹									
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{in} [kW]	Output torque M _{2n} [Nm]	Service factor f.s.	Nominal power P _{in} [kW]	Nominal torque M _{2n} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code	
							B	C	D	E	Q	R	T				
200	7	1.8	71	1.7	3.0	119		B	B			B-C	B-C		83	3.1	01
140	10	1.8	99	1.3	2.3	128		B	B			B-C	B-C		81	3.1	02
93	15	1.5	121	1.1	1.6	131		B	B			B-C	B-C		79	3.1	03
74	19	1.1	111	1.2	1.3	131		B	B			B-C	B-C		78	2.6	04
58	24	1.1	135	1.0	1.1	135		B	B			B-C	B-C		75	2.0	05
47	30	1.1	167	0.8	0.92	139		B	B			B-C	B-C		74	3.2	06
39	36	0.75	125	1.1	0.84	140		B	B			B-C	B-C		68	2.7	07
31	45	0.55	111	1.2	0.64	129	B	B				B-C	C		66	2.1	08
21	67	0.55	151	0.8	0.43	118	B	B				B-C	C		60	1.5	09
17.5	80	0.37	115	1.0	0.36	113	B	B				B-C	C		57	1.3	10
14.9	94	0.37	123	0.9	0.34	113	B	B				B-C	C		52	1.1	11

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

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. For complete documentation please visit our web site.

LUBRICATION 063 Oil Quantity 0.40 Lt.			
AGIP	KLUBER	SHELL	MOBIL
Tellium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

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. Per la documentazione completa consulta il nostro sito.

RADIAL AND AXIAL LOADS			
Output shaft Albero di uscita			
	n ₂ [min ⁻¹]	FA [N]	FR [N]
	200	360	1800
	150	400	2000
	100	460	2300
	75	500	2500
	50	600	3000
25	700	3800	
15	800	4000	
Input shaft albero in entrata			
	n ₁ [min ⁻¹]	FA [N]	FR [N]
	1400	90	450

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

tab. 2

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. Die komplette Dokumentation, Wartungs - und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.



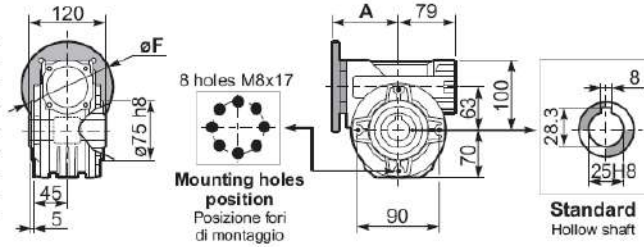
3D dimensions on the Web

Rightangle - Gear
140Nm **063**

P063**FB**... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **6.00 kg**

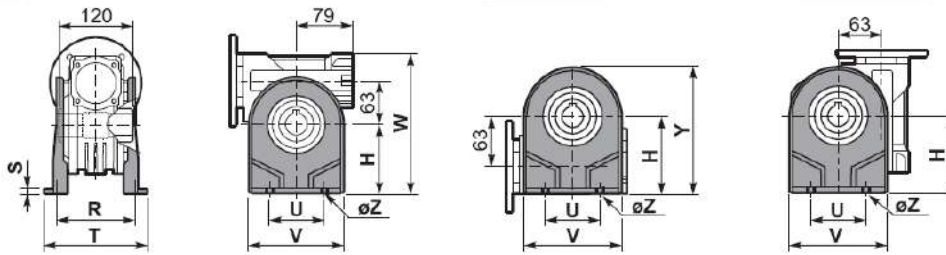
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	99.5
71B5	K063.4.042	160	97.5
80/90B5	K063.4.043	200	99.5
71B14	K063.4.047	105	97.5
80B14	K063.4.046	120	98.5
90B14	K063.4.041	140	99.5



P063**PA**... Feet
Piedini

P063**PB**... Feet
Piedini

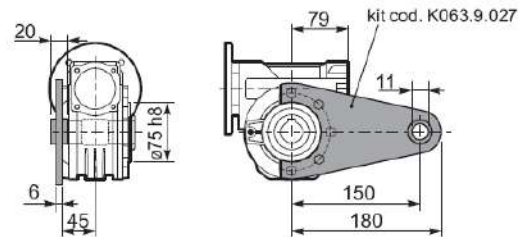
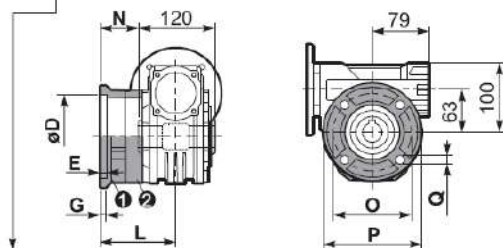
P063**PV**... Feet
Piedini



	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	-	-	-	-	-	-	-	-	-	-

P063**FC**... Output flange
Flangia uscita

P063**BR**... Reaction arm
Braccio di reazione

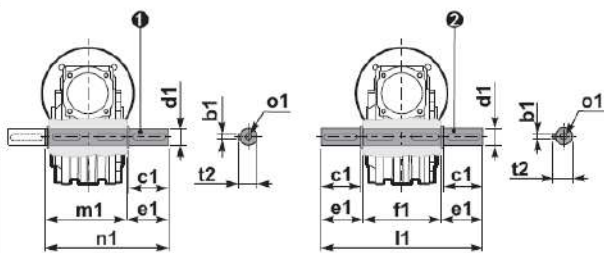


type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 ^{+0.20} / _{+0.15}	7	13	86	26	150	175	11	① K063.9.010 ② -
FL	115 ^{+0.20} / _{+0.15}	7	13	116	56	150	175	11	① K063.9.010 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.20} / _{+0.15}	7	13	102	42	165	200	13	① KS070.9.013 ② -
F2	115 ^{+0.20} / _{+0.15}	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 ^{+0.036} / ₀	5	11	82	22	130	160	10	① KS063.9.011 ② -

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

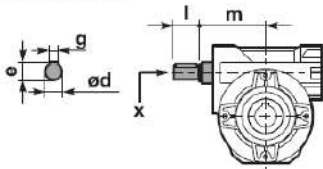
P063...**D**... Double Shaft
Albero lento bisp.



① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

R063**FB**... 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 ^{+0.025} / _{-0.025}	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



63A Rightangle - Gear 180Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n₁) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _M [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{2N} [kW]	Nominal torque M _{2N} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code	
							B	C	D	E	Q	R	T				
							63	71	80	90	71	80	90				
200	7	1.8	71	2.2	3.9	155		B	B			B-C	B-C		83	3.1	01
140	10	1.8	99	1.7	3.0	165		B	B			B-C	B-C		81	3.1	02
93	15	1.5	121	1.4	2.1	169		B	B			B-C	B-C		79	3.1	03
74	19	1.5	152	1.1	1.7	169		B	B			B-C	B-C		78	2.6	04
58	24	1.5	184	1.0	1.4	176		B	B			B-C	B-C		75	2	05
47	30	1.5	227	0.8	1.2	180		B	B			B-C	B-C		74	3.2	06
39	36	1.1	184	1.0	1.1	181		B	B			B-C	B-C		68	2.7	07
31	45	0.75	152	1.1	0.82	167		B	B			B-C	C		66	2.1	08
21	67	0.55	151	1.0	0.55	151		B	B			B-C	C		60	1.5	09
17.5	80	0.37	115	1.3	0.47	146		B	B			B-C	C		57	1.3	10
14.9	94	0.37	123	1.0	0.37	124		B	B			B-C	C		52	1.1	11

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

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs - und Inbetriebnahmeleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

-LUBRICATION 63A Oil Quantity 0.40 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

-RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

Input shaft
albero in entrata

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

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

tab. 2

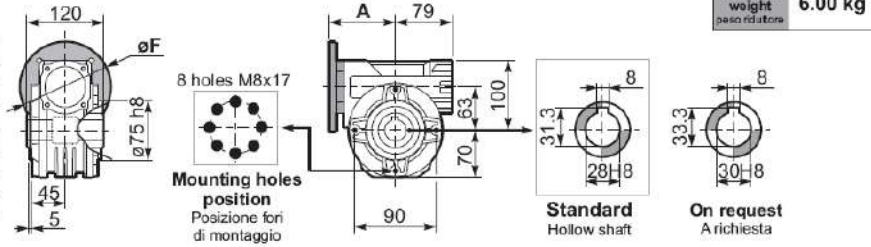


3D dimensions on the Web

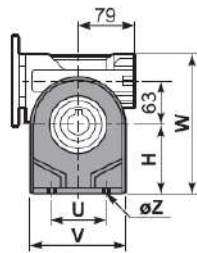
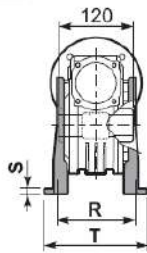
Rightangle - Gear
180Nm **63A**

P63AFB... Basic wormbox
Riduttore base

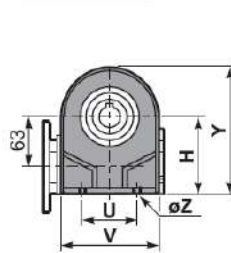
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	99.5
71B5	K063.4.042	160	97.5
80/90B5	K063.4.043	200	99.5
71B14	K063.4.047	105	97.5
80B14	K063.4.045	120	98.5
90B14	K063.4.041	140	99.5



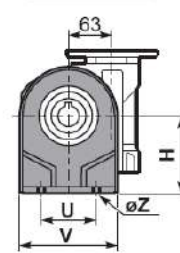
P63APA... Feet
Piedini



P63APB... Feet
Piedini

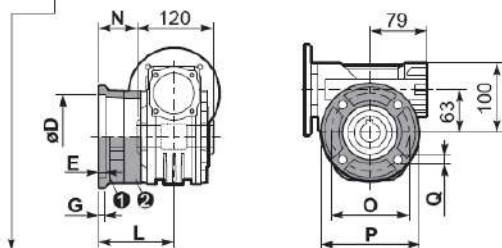


P63APV... Feet
Piedini



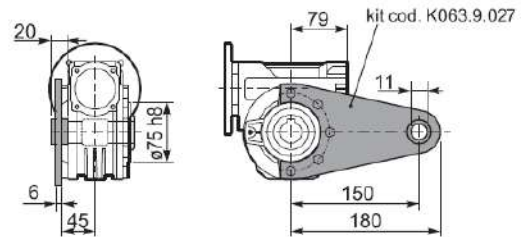
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

P63AFC... Output flange
Flangia uscita



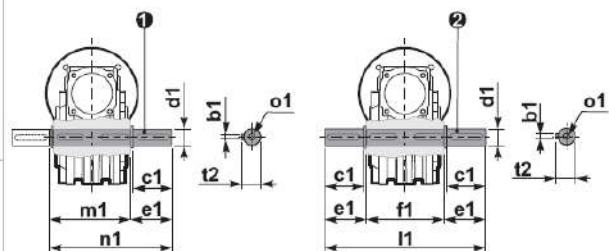
type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 ^{+0.20} / _{+0.15}	7	13	85	25	165	200	13	① K070.9.010 ② -
FL	130 ^{+0.20} / _{+0.15}	7	13	111	51	165	200	13	① K070.9.010 ② K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.20} / _{+0.15}	7	13	111	51	165	200	13	① KS070.9.014 ② -
F2	115 ^{+0.20} / _{+0.15}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

P63ABR... Reaction arm
Braccio di reazione



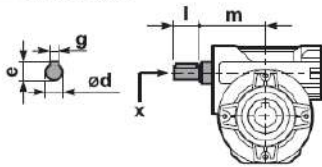
P63A.....S... Single Shaft
Albero lento semplice

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 PAM90 ② KS063.5.009 PAM90

	b1	c1	d1	e1	f1	l1	m1	n1	t2	ø1
type B	8	60	28 ^{+0.025} / _{-0.025}	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



085 Rightangle - Gear 330Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce										input speed (n ₁) = 1400 min ⁻¹							
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _M [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _N [kW]	Nominal torque M _N [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code	
							C	D	E	F	R	T	U				
200	7	4.0	168	1.5	5.8	245		B	B			B	B		88	4.23	01
140	10	4.0	218	1.2	4.9	270		B	B			B	B		80	4.2	02
100	14	3.0	223	1.3	3.9	290		B	B			B	B		78	4.5	03
70	20	2.2	237	1.2	2.6	280		B	B			B	B		79	3.4	04
64	22	2.2	258	1.1	2.4	280		B	B			B	B		78	3.1	05
50	28	2.2	315	1.0	2.3	330		B	B			B	B		75	4.7	06
37	38	1.5	276	1.2	1.7	320	B	B				B			71	3.5	07
30	46	1.5	320	1.0	1.4	310	B	B				B			68	3.1	08
27	52	1.1	258	1.1	1.2	275	B	B				B			66	2.7	09
21	67	1.1	327	0.8	0.93	275	B	B				B			65	2.1	10
18.9	74	0.75	220	1.2	0.87	255	B	B				B			58	1.9	11
14.6	96	0.55	191	1.2	0.66	230	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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

•LUBRICATION 085 Oil Quantity 1.20 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

•RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
200	500	2500
150	580	2900
100	600	3000
75	700	3500
50	800	4000
25	1000	5000
15	1160	5800

Input shaft
albero in entrata

n ₁ [min ⁻¹]	FA [N]	FR [N]
1400	160	809

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

tab. 2



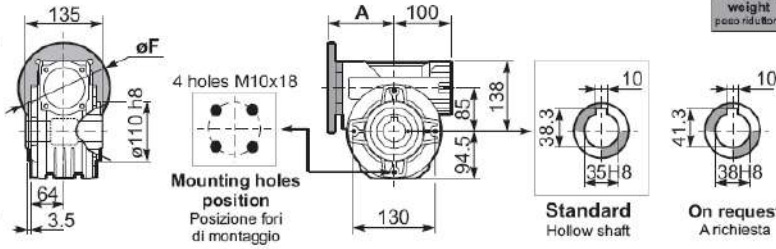
3D dimensions on the Web

Rightangle - Gear **330Nm 085**

P085FB... Basic wormbox
Riduttore base

Wormbox weight peso riduttore **11.00 kg**

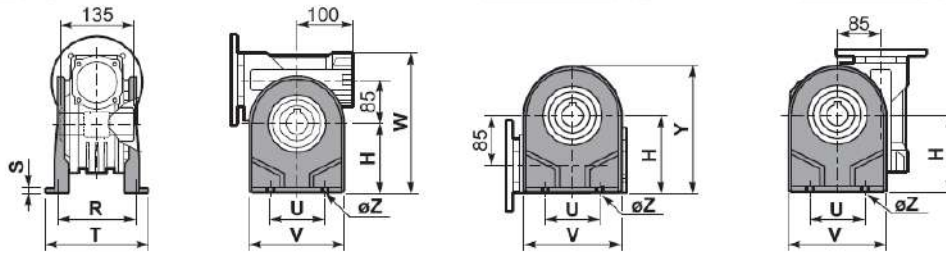
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	116
80/90B5	K023.4.042	200	118
100/112B5	K023.4.043	250	124
80B14	K085.4.046	120	116
90B14	K085.4.045	140	116
100/112B14	K023.4.041	160	116



P085PA... Feet
Piedini

P085PB... Feet
Piedini

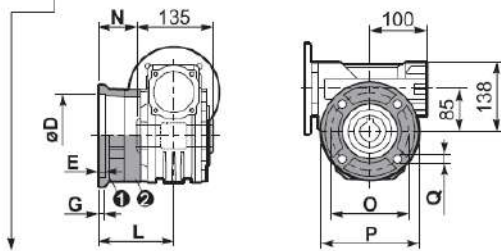
P085PV... Feet
Piedini



	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

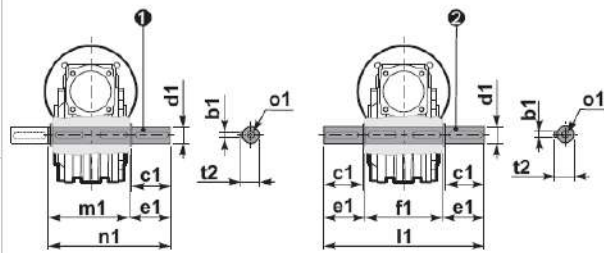


type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 ^{+0.20} _{+0.00}	5	16	108	40.5	176	205	13	⊕ K085.9.010 ⊙ K085.9.010 ⊚ K085.0.201
FL	152 ^{+0.20} _{+0.00}	5	16	148.5	81	176	205	13	⊕ K085.9.010 ⊙ K085.9.010 ⊚ K085.0.201

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 H7	5	13	117.5	50	165	200	11.5	⊕ KS085.9.012 ⊙ KS085.9.013 ⊚ KS085.9.015
F2	152 ^{+0.20} _{+0.00}	5	15	147.5	80	180	205	12.5	⊕ KS085.9.012 ⊙ KS085.9.013 ⊚ KS085.9.015
F4	130 H7	5	13	106.5	39	165	200	13	⊕ KS085.9.012 ⊙ KS085.9.013 ⊚ KS085.9.015

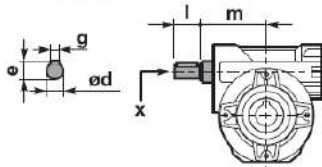
P085.....S... Single Shaft
Albero lento semplice

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



⊕ kit cod. K085.5.028 type B ⊙ 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	⊕ K085.5.007 PAM90 ⊙ K085.5.008 PAM100
type S	24 h6	27	8	50	112	M8x20	⊕ KS085.5.009 PAM90 ⊙ KS085.5.011 PAM100

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 ^{-0.05} _{+0.020}	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



110 Rightangle - Gear 620Nm

Rating - Cast Iron WORM GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{in} [kW]	Output torque M_{2max} [Nm]	Service factor f.s.	Nominal power P_{10} [kW]	Nominal torque M_{10} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code	
							C	D	E	F	R	T	U				
							71	80	90	100 112	80	90	100 112				
200	7	4.0	168	2.7	10.9	460		B	B			B	B		88	5.5	01
140	10	4.0	235	2.1	8.5	500		B	B			B	B		86	5.4	02
88	16	4.0	358	1.4	5.7	510		B	B			B	B		82	5.3	03
70	20	4.0	447	1.2	4.6	520		B	B			B	B		82	4.5	04
61	23	3.0	377	1.3	3.9	490		B	B			B	B		80	3.9	05
47	30	3.0	467	1.3	4.0	620		B	B			B	B		76	5.6	06
37	38	3.0	583	1.0	3.1	610		B	B			B	B		75	4.7	07
31	45	2.2	493	1.2	2.5	570		B	B			B	B		73	4.0	08
26	53	2.2	557	1.1	2.3	590		B	B			B	B		70	3.5	09
22	64	1.5	452	1.1	1.7	510	B	B				B			69	2.9	10
16.7	84	1.1	410	1.1	1.3	470	B	B				B			65	2.2	11
14.1	99	1.1	446	1.0	1.1	460	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.
For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

D Das Getriebe der Baugröße 110 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Abfließschraube 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

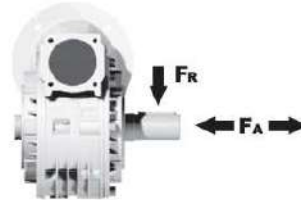
B3 2.00 LT	B6 1.50 LT	B7 1.50 LT	B8 2.00LT	V5 2.00 LT	V6 2.00LT
AGIP	BP	SHELL	KLUBER	MOBIL	
Telium VSF 320	Energol SGXP220	Tivela Oil WB	Syntheso D220 EF	Glygoyl 30	

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



n_2 [min ⁻¹]	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 ⁻¹]	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



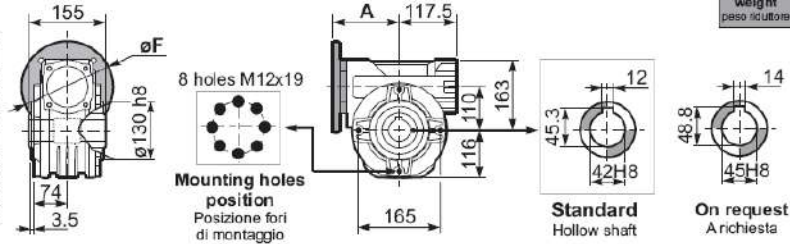
3D dimensions on the Web

Rightangle - Gear
620Nm **110**

P110**FB**... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **35.00 kg**

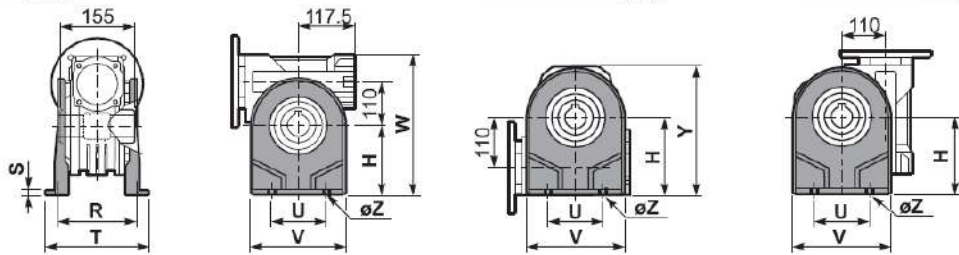
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	135.5
80/90B5	K023.4.042	200	137.5
100/112B5	K023.4.043	250	143.5
80B14	K085.4.046	120	135.5
90B14	K085.4.045	140	135.5
100/112B14	K023.4.041	160	135.5



P110**PA**... Feet
Pedini

P110**PB**... Feet
Piedini

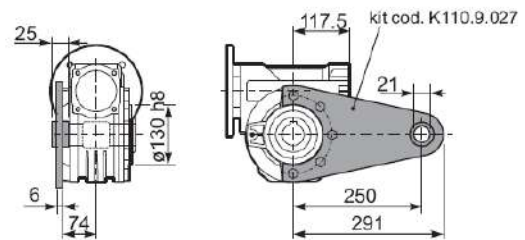
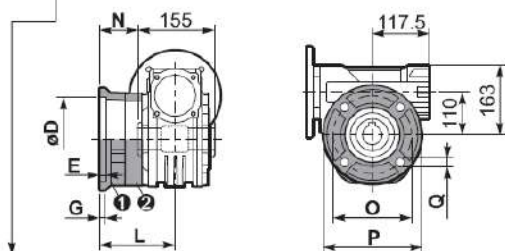
P110**PV**... Feet
Piedini



	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	18	190	200	240	288	335	ø14	KS110.9.023

P110**FC**... Output flange
Flangia uscita

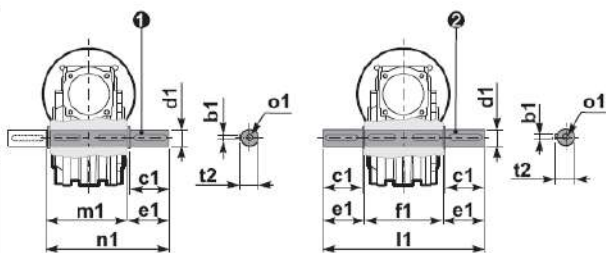
P110**BR**... Reaction arm
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 ^{+0.083} / _{-0.045}	11	16.5	131.5	54	230	270	13	Ⓚ110.9.010
FL	170 ^{+0.083} / _{-0.045}	11	16.5	179.5	102	230	270	13	Ⓚ110.9.011
type S	øD	E	G	L	N	O	P	Q	kit code
F1	180 ^{+0.040} / ₀	5	18	150	72.5	215	250	15	ⓀS110.9.014
F2	170 ^{+0.083} / _{-0.042}	9.5	15	178	100.5	230	270	13	ⓀS110.9.012
F3	180 ^{+0.046} / ₀	5	18	130	52.5	215	250	15	ⓀS110.9.013

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

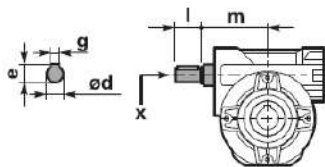
P110...**D**... Double Shaft
Albero lento bisp.



Ⓚ kit cod. K110.5.028 type B

Ⓚ kit cod. K110.5.029 type B

R110**FB**... Input shaft
Albero in entrata



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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	ø1
type B	12	75	42 ^{+0.004} / _{-0.020}	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-



P45 Rightangle - Gear 50Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce								input speed (n ₁) = 1400 min ⁻¹					
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{SW} [kW]	Output torque M _{SW} [Nm]	Service factor f.s.	Nominal power P _{SN} [kW]	Nominal torque M _{SN} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	P	Q			
47	30.1	0.25	38	1.3	0.33	50			C		74	2.2	01
33	43.0	0.25	53	0.9	0.24	50			C		72	2.4	02
23	60.2	0.12	30	1.7	0.20	50			C		60	1.6	03
15.5	90.3	0.12	42	1.2	0.14	50			C		57	2.5	04
11.6	120	0.12	52	1.0	0.11	50			C		53	1.8	05
8.8	159	0.12	64	0.8	0.09	50			C		49	1.5	06
7.1	198	0.12*	50	<0.8	0.08	50			C		47	1.5	07
5.4	258	0.12*	50	<0.8	0.06	50			C		45	1.0	08
4.7	301	0.12*	35	<0.8	0.04	35			C		40	0.72	09
3.2	439	0.12*	35	<0.8	0.03	35			C		36	0.72	10

A) Motor Flanges Available Flange Motore Disponibili
 B) Supplied with Reduction Bushing Fornito con Bussole di Riduzione
 B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussole 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_{SN}
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{SN}.

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. [For complete documentation please visit our web site.](#)

LUBRICATION P45 Oil
Quantity 0.09/0.04 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

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. [Per la documentazione completa consulta il nostro sito](#)

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	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 ⁻¹]	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

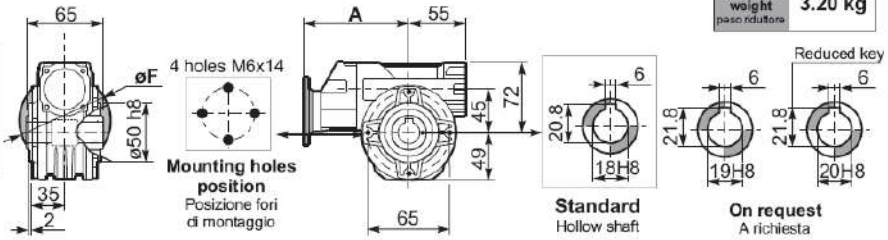


3D dimensions on the Web

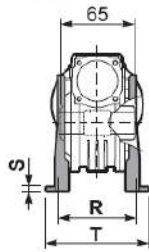
Rightangle - Gear
50Nm **P45**

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

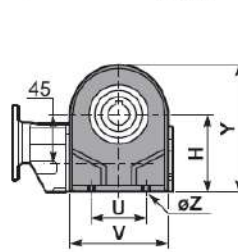
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	137.5
71B5	K050.4.042	160	135.5
63B14	K050.4.047	90	139.5
71B14	K050.4.045	105	137



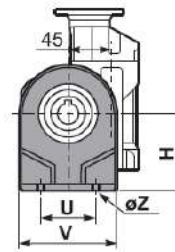
PP45**PA**... Feet
Piedini



PP45**PB**... Feet
Piedini

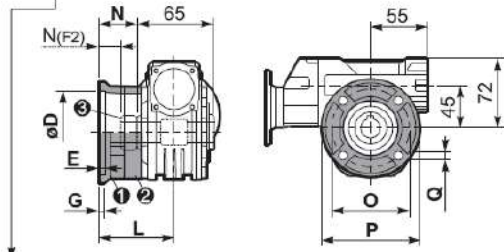


PP45**PV**... Feet
Piedini



	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

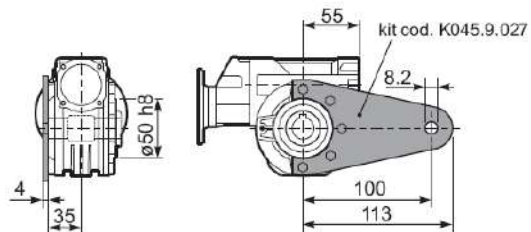
PP45**FC**... Output flange
Flangia uscita



type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 ^{+0.13} / _{-0.08}	9	9	60.5	28	87	110	8.5	1) K045.9.010 2) K045.9.011
FL	60 ^{+0.18} / _{+0.05}	9	9	90.5	58	87	110	8.5	1) K045.9.010 2) K045.0.200

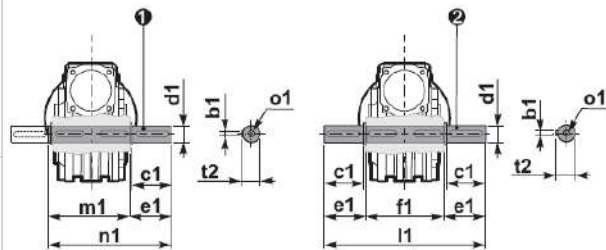
type S	øD	E	G	L	N	O	P	Q	kit code
F1	95 ^{+0.20} / _{+0.14}	4	11	73.5	41	115	140	9	KS045.9.013
F2	60 ^{+0.18} / _{+0.05}	9	9	60.5	19	87	110	8.5	1) KS045.9.010 2) S045.0.204
F3	80 ^{+0.03} / _{+0.00}	3	8	51.5	19	100	120	9	KS045.9.014

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



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

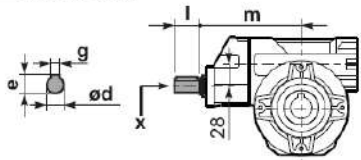
PP45...**D**... Double Shaft
Albero lento bispo.



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 j6	16	5	25	131	M5x13	C35.5.061
type S	-	-	-	-	-	-	-

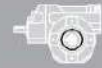
	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 ^{-0.005} / _{-0.005}	43	65	151	70	113	20.5	M6x18
type S	6	40	19 ^{-0.005} / _{-0.005}	58.8	65	182	70	128.5	21.5	M8x20



P50 Rightangle - Gear

80Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce							input speed (n _i) = 1400 min ⁻¹						
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{MW} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P ₁₀ [kW]	Nominal torque M ₂₀₅ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	P	Q			
47	30.1	0.37	58	1.2	0.45	70			C		76	2.4	01
33	43.0	0.25	55	1.3	0.32	70			C		75	2.6	02
23	60.2	0.25	71	1.0	0.25	70			C		69	2.0	03
18.1	77.4	0.18	58	1.4	0.25	80			C		61	2.7	04
12.5	112	0.18	84	1.0	0.17	80			C		61	2.1	05
9.0	155	0.12	71	1.1	0.14	80			C		56	1.8	06
7.6	185	0.12	74	0.9	0.11	70			C		49	1.3	07
5.4	258	0.12*	70	<0.8	0.08	70			C		47	1.2	08
4.8	292	0.12*	60	<0.8	0.07	60			C		44	1.0	09
4.1	344	0.12*	40	<0.8	0.04	40			C		40	0.8	10
3.3	430	0.12*	40	<0.8	0.04	40			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 M₂₀₅
 Potenze superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M₂₀₅

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. For complete documentation please visit our web site.

LUBRICATION P50 Oil
 Quantity 0.14/0.04 Lt.

AGIP	KLUBER	SHELL	MOBIL
Tellium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

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. Per la documentazione completa consulta il nostro sito.

RADIAL AND AXIAL LOADS

Output shaft
 Albero di uscita

n ₂ [min ⁻¹]	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 ⁻¹]	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

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.



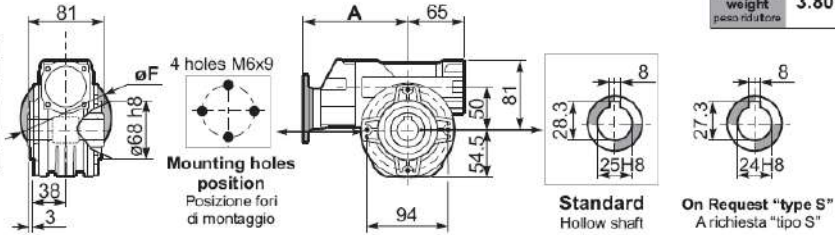
3D dimensions on the Web

Rightangle - Gear
80Nm P50

PP50**FB**... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **3.80 kg**

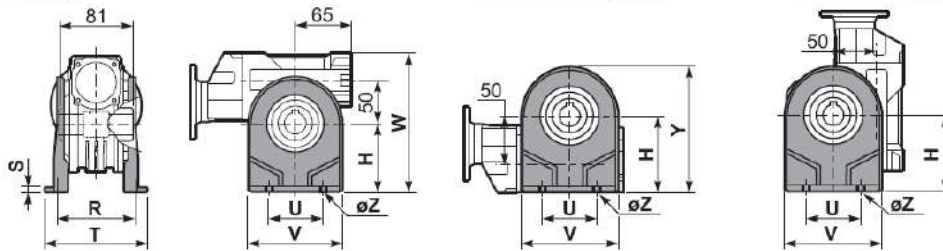
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	142
71B5	K050.4.042	160	140
63B14	K050.4.047	90	144
71B14	K050.4.045	105	141.5



PP50**PA**... Feet
Piedini

PP50**PB**... Feet
Piedini

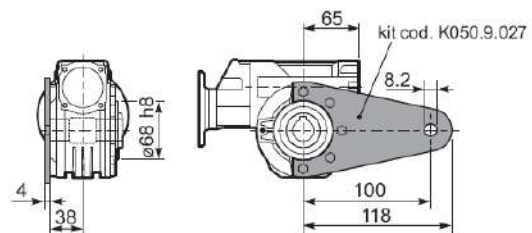
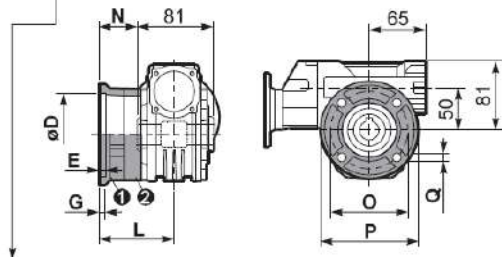
PP50**PV**... Feet
Piedini



	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

PP50**FC**... Output flange
Flangia uscita

PP50**BR**... Reaction arm
Braccio di reazione

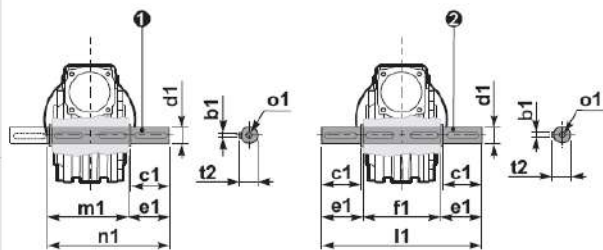


type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 ^{+0.20} / _{-0.15}	9	12	85	44.5	90	123	10.5	1 K050.9.010 2 K050.0.200
FL	70 ^{+0.20} / _{-0.15}	9	12	114.5	74	90	123	10.5	1 K050.9.010 2 K050.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
F1	110 ^{+0.20} / _{-0.15}	4	11	83.5	43	130	160	10	1 KS050.9.012 2 KS050.9.014
F2	70 ^{+0.20} / _{-0.15}	9	12	76.5	36	90	123	10.5	1 KS050.9.014 2 KS050.9.013
F3	95 ^{+0.055} / ₀	4	10	66.5	26	115	140	10	1 KS050.9.013 2 KS050.9.013

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

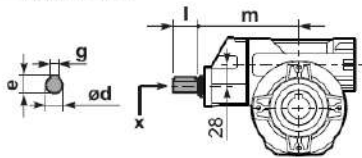
PP50.....**D**... Double Shaft
Albero lento biep.



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

RP50**FB**... Input shaft
Albero in entrata



type B	ød	e	g	l	m	x
type B	14 j6	16	5	25	135.5	M5x13
type S	-	-	-	-	-	-

type B	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 ^{+0.038} / _{-0.020}	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 ^{+0.038} / _{-0.020}	68.8	81	218	86.5	155	27	M8x20



P63 Rightangle - Gear 170Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce input speed (n₁) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1N} [kW]	Output torque M _{2N} [Nm]	Service factor f.s.	Nominal power P _{1N} [kW]	Nominal torque M _{2N} [Nm]	Available B5 motor flanges				Available B14 motor flanges				Dynamic efficiency RD	Tooth Module Mn [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	1.3	0.99	150						C	C			74	2.6	01
	37	37.7	0.75	141	1.1	0.80	150						C	C			73	2.0	02
	30	47.1	0.75	169	1.0	0.76	170						C	C			70	3.2	03
	25	56.6	0.55	136	1.3	0.69	170						C	C			64	2.7	04
	19.8	70.7	0.37	111	1.5	0.57	170						C	C			62	2.1	05
	15.9	87.8	0.37	162	1.1	0.39	170						C	C			73	2.6	06
	12.6	111.0	0.37	199	0.9	0.32	170						C	C			71	2.0	07
IEC 71 - 63	10.1	139	0.37	234	0.7	0.27	170						C				67	3.2	08
	8.4	166	0.25	173	1.0	0.25	170						C				61	2.7	09
	6.7	208	0.18	151	1.0	0.18	150						C				59	2.1	10
	4.5	310	0.12	129	1.2	0.14	150						C				51	1.5	11
	3.8	370	0.12	145	1.0	0.12	150						C				48	1.3	12
	3.2	434	0.12	149	0.8	0.10	125						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. For complete documentation please visit our web site.

LUBRICATION P63 Oil
Quantity 0.40/0.08 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

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. Per la documentazione completa consulta il nostro sito.

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	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 ⁻¹]	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



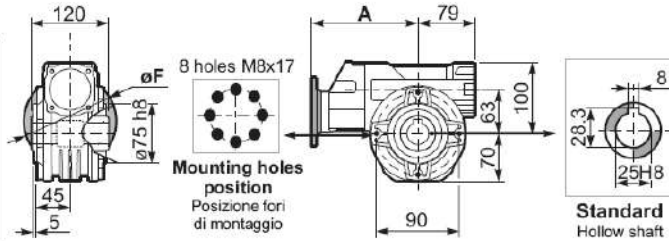
3D dimensions on the Web

Rightangle - Gear
170Nm **P63**

PP63**FB**... Basic wormbox
Riduttore base

Wormbox weight	29.9+111	139+434
peso riduttore	7.30 Kg	7.80 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	177.5
90B14	K063.4.041	140	178.5
139+434			
63B5	K050.4.041	138	160.5
71B5	K050.4.042	160	158.5
63B14	K050.4.047	90	160.5
71B14	K050.4.045	105	160

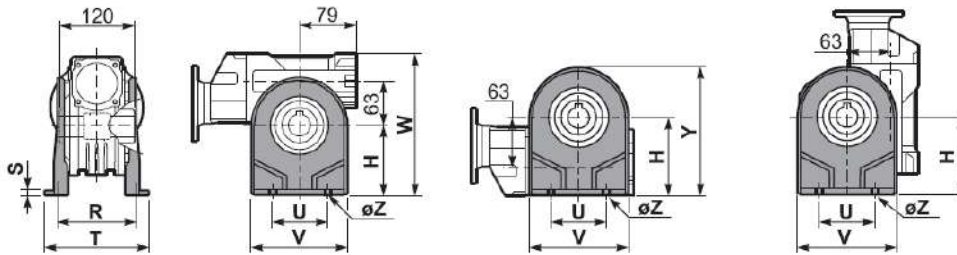


Standard
Hollow shaft

PP63**PA**... Feet
Piedini

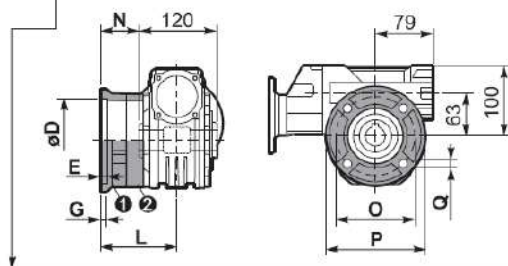
PP63**PB**... Feet
Piedini

PP63**PV**... Feet
Piedini



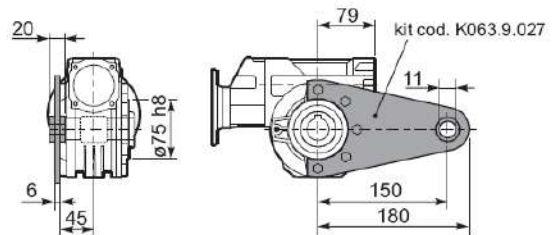
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

PP63**FC**... Output flange
Flangia uscita



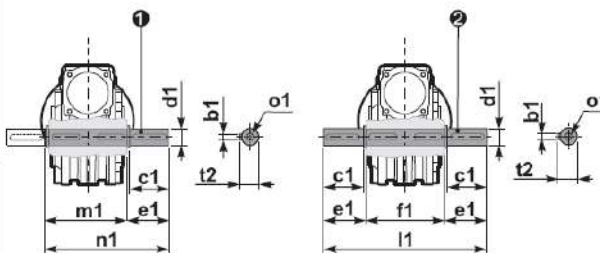
type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 ^{+0.20} / _{+0.15}	7	13	86	26	150	175	11	1 ① K063.9.010 2 ② -
FL	115 ^{+0.20} / _{+0.15}	7	13	116	56	150	175	11	1 ① K063.9.010 2 ② K063.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.20} / _{+0.15}	7	13	102	42	165	200	13	① KS070.9.013 ② -
F2	115 ^{+0.20} / _{+0.15}	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 ^{+0.035} / ₀	5	11	82	22	130	160	10	① KS063.9.011 ② -

PP63**BR**... Reaction arm
Braccio di reazione



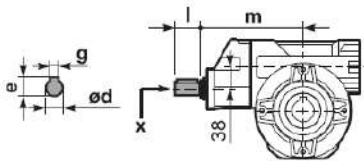
PP63...**S**... Single Shaft
Albero lento semplice

PP63...**D**... Double Shaft
Albero lento bisp.



① kit cod. K063.5.028 type B ② kit cod. K063.5.029 type B

RP63**FB**... Input shaft
Albero in entrata



	ød	e	g	l	m	x
29.9+111	19 j5	21.5	6	35	169.4	M6x16
139+434	14 j5	16	5	25	154.2	M5x13

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 ^{-0.065} / _{-0.020}	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



P6A Rightangle - Gear

198Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n₁) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges				Dynamic efficiency RD	Tooth Module Mn [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	1.5	1.09	165						C	C			74	2.6	01
	37	37.7	0.75	141	1.2	0.88	165						C	C	C		73	2.0	02
	30	47.1	0.75	169	1.1	0.83	187						C	C	C		70	3.2	03
	25	56.6	0.55	136	1.4	0.76	187						C	C	C		64	2.7	04
	19.8	70.7	0.37	109	1.7	0.64	187						C	C	C		61	2.1	05
	15.9	87.8	0.37	160	1.2	0.46	198						C	C	C		72	2.6	06
	12.6	111.0	0.37	196	1.0	0.37	198						C	C	C		70	2.0	07
IEC 71 - 63	10.1	139	0.37	231	0.9	0.32	198						C				66	3.2	08
	8.4	166	0.25	170	1.2	0.29	198						C				60	2.7	09
	6.7	208	0.25	195	0.9	0.23	176						C				55	2.1	10
	4.5	310	0.18	194	0.9	0.16	176						C				51	1.5	11
	3.8	370	0.18	213	0.8	0.15	176						C				47	1.3	12
	3.2	434	0.18*	130	<0.8	0.10	130						C				42	1.1	13

Motor Flanges Available Flange Motore Disponibili
B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione
C) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione
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 supportabile dal riduttore. Selezionare in base al momento torcente M_{2R}

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

LUBRICATION P63 Oil 0.40 Lt. 0.08 Lt.
Quantity 0.40/0.08 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
 Albero di uscita

n ₂ [min ⁻¹]	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 ⁻¹]	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

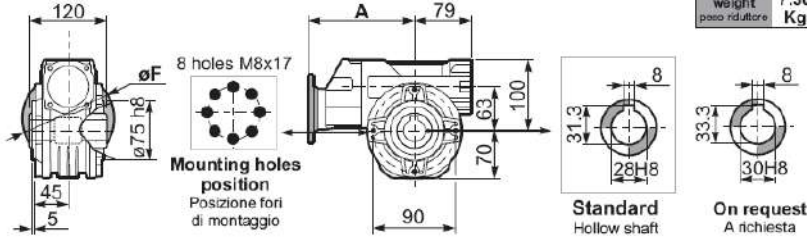


3D dimensions on the Web

Rightangle - Gear
198Nm **P6A**

PP6A**FB**... Basic wormbox
Riduttore base

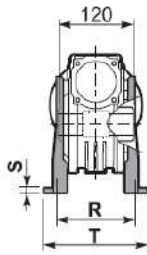
M.flange	Kit code	øF	A
71B5	K063.4.042	160	176.5
80/90B5	K063.4.043	200	178.5
71B14	K063.4.047	105	176.5
80B14	K063.4.046	120	177.5
90B14	K063.4.041	140	178.5
29.9+111			
63B5	K050.4.041	138	160.5
71B5	K050.4.042	160	158.5
63B14	K050.4.047	90	160.5
71B14	K050.4.045	105	160



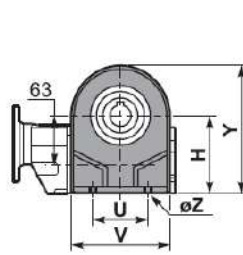
Wormbox weight	29.9-111	139-434
peso riduttore	7.30 Kg	7.80 Kg

Standard Hollow shaft
On request A richiesta

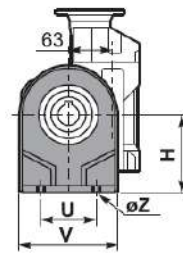
PP6A**PA**... Feet
Piedini



PP6A**PB**... Feet
Piedini

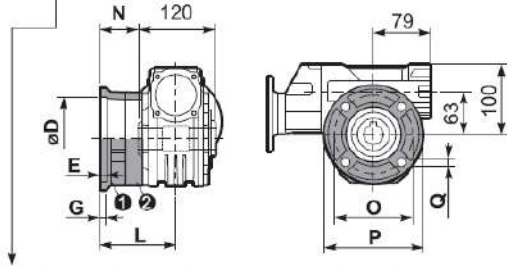


PP6A**PV**... Feet
Piedini



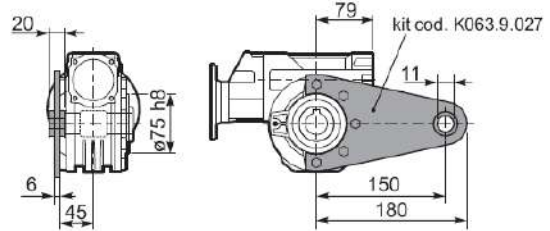
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

PP6A**FC**... Output flange
Flangia uscita



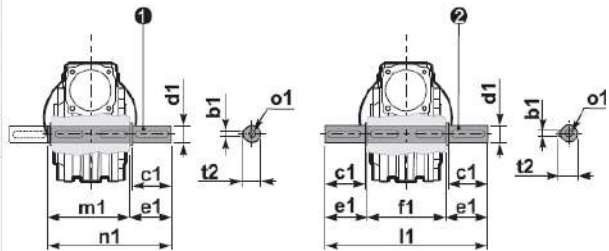
type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 ^{+0.20} _{-0.15}	7	13	85	25	165	200	13	1 K070.9.010 2 -
FL	130 ^{+0.20} _{-0.15}	7	13	111	51	165	200	13	1 K070.9.010 2 K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.20} _{-0.15}	7	13	111	51	165	200	13	1 KS070.9.014 2 -
F2	115 ^{+0.20} _{-0.15}	7	13	116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

PP6A**BR**... Reaction arm
Braccio di reazione



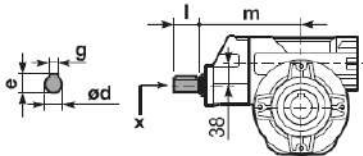
PP6A...**S**... Single Shaft
Albero lento semplice

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



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

RP6A**FB**... Input shaft
Albero in entrata



	ød	e	g	l	m	x	
29.9+111	19 j5	21.5	6	35	169.4	M6x16	C40.5.062
139+434	14 j5	16	5	25	154.2	M5x13	C35.5.061

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 ^{+0.035} _{-0.020}	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



P85 Rightangle - Gear 400Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce										input speed (n _i) = 1400 min ⁻¹						
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{in} [kW]	Output torque M _{out} [Nm]	Service factor f.s.	Nominal power P ₁₀ [kW]	Nominal torque M ₁₀ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	D	E	Q	R	T			
							63	71	80	90	71	80	90			
23.5	59.7	1.1	300	1.3	1.39	380					C	C		67	3.5	01
19.4	72.3	1.1	347	1.1	1.17	370					C	C		64	3.1	02
17.1	81.7	1.1	374	1.0	1.12	380					C	C		61	2.7	03
13.3	105	0.75	323	1.1	0.81	350					C	C		60	2.1	04
8.0	176	0.55	415	1.0	0.53	400					C	C		63	3.5	05
6.6	213	0.37	322	1.1	0.43	370	B				C	C		60	3.1	06
5.8	240	0.37	321	1.2	0.44	380	B				C	C		53	2.7	07
4.3	328	0.37	438	0.9	0.32	380	B				C	C		53	2.7	08
3.3	422	0.25	374	0.9	0.23	350	B				C	C		52	2.1	09
3.0	466	0.25	358	0.8	0.21	300	B				C	C		45	1.9	10
2.3	605	0.18	297	1.0	0.18	300	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. [For complete documentation please visit our web site.](#)

LUBRICATION P85 Oil Quantity 1.20/0.14 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

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. [Per la documentazione completa consulta il nostro sito.](#)

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
75	700	3500
50	800	4000
25	1000	5000
15-6	1160	5800

Input shaft
albero in entrata

n ₁ [min ⁻¹]	FA [N]	FR [N]
1400	108	540

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

tab. 2



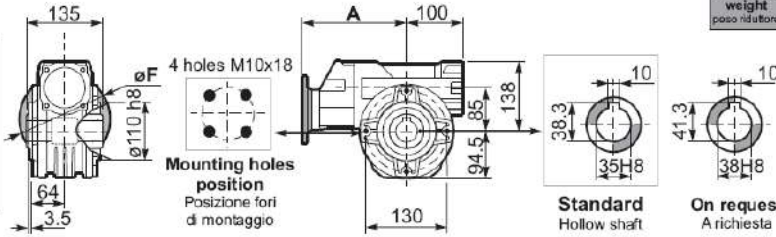
3D dimensions on the Web

Rightangle - Gear
400Nm **P85**

PP85FB... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **19.30 kg**

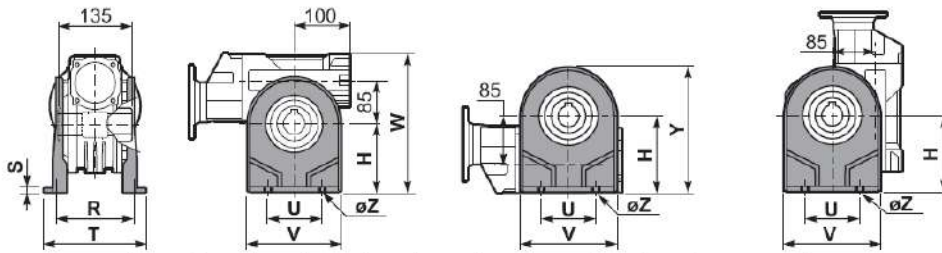
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	195.2
71B5	K063.4.042	160	193.2
80/90B5	K063.4.043	200	195.2
71B14	K063.4.047	105	193.2
80B14	K063.4.046	120	194.2
90B14	K063.4.041	140	195.2



PP85PA... Feet
Piedini

PP85PB... Feet
Piedini

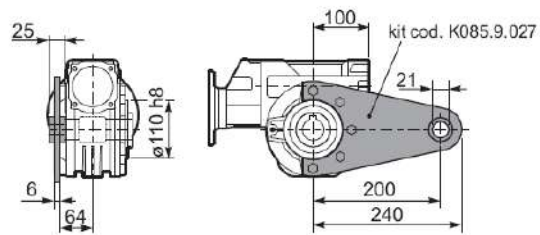
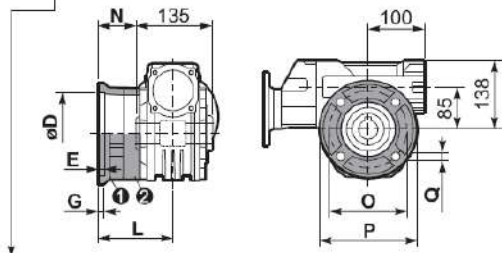
PP85PV... Feet
Piedini



	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	-	-	-	-	-	-	-	-	-	-

PP85FC... Output flange
Flangia uscita

PP85BR... Reaction arm
Braccio di reazione

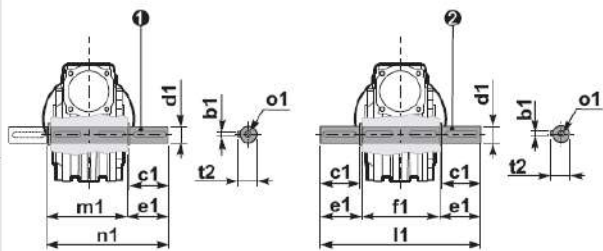


type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 ^{+0.06} / _{+0.00}	5	16	108	40.5	176	205	13	Ⓚ085.9.010
FL	152 ^{+0.06} / _{+0.00}	5	16	148.5	81	176	205	13	Ⓚ085.9.010 Ⓚ085.0.201

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.04} / _{+0.00}	5	13	117.5	50	165	200	11.5	ⓀS085.9.012
F2	152 ^{+0.06} / _{+0.00}	5	15	147.5	80	180	205	12.5	ⓀS085.9.013
F4	130 ^{+0.04} / _{+0.00}	5	13	106.5	39	165	200	13	ⓀS085.9.015

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

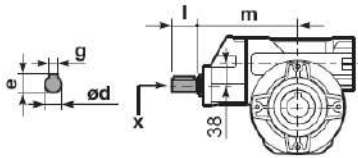
PP85.....D... Double Shaft
Albero lento bisp.



Ⓚ kit cod. K085.5.028 type B

Ⓚ kit cod. K085.5.029 type B

RP85FB... Input shaft
Albero in entrata



	ød	e	g	l	m	x
type B	19 j5	21.5	6	35	187.5	M6x16
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 ^{+0.003} / _{0.000}	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



P10 Rightangle - Gear 730Nm

Rating - Alluminum WORM GEARBOXES

QUICK SELECTION / Selezione veloce input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{in} [kW]	Output torque M_{out} [Nm]	Service factor f.s.	Nominal power P_{n} [kW]	Nominal torque M_{n} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	D	E	Q	R	T			
							63	71	80	90	71	80	90			
16.8	83.2	1.5	562	1.1	1.6	600					C			69	3.5	01
13.9	100.5	1.5	651	0.8	1.2	540					C			68	2.9	02
10.6	132	1.1	574	0.9	1.0	500					C			64	2.2	03
8.0	176	0.75	594	1.2	0.92	730	B				C			74	4.7	04
6.7	208	0.75	670	0.9	0.67	600	B				C			72	4.0	05
5.7	245	0.55	570	1.1	0.58	600	B				C			69	3.5	06
4.7	296	0.55	611	0.9	0.49	540	B				C			68	2.9	07
4.2	334	0.55	689	0.9	0.48	600	B				C			69	3.5	08
3.5	403	0.37	519	1.0	0.39	540	B				C			68	2.9	09
2.6	529	0.25	424	1.2	0.29	500	B				C			64	2.2	10
2.2	624	0.25	479	1.0	0.25	480	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. For complete documentation please visit our web site.

2.0/0.14LT	1.5/0.14 LT	1.5/0.14 LT	2.0/0.14 LT	2.0/0.14 LT	2.0/0.14 LT
AGIP	BP	SHELL	KLUBER	MOBIL	
Telium VSF 320	Energol SGXP220	Tivela Oil WB	Syntheso D220 EF	Glygoyl 30	

tab. 1

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. Per la documentazione completa consulta il nostro sito.

-RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n_2 [min ⁻¹]	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 ⁻¹]	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

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 Lebensdauergeschmiert 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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.



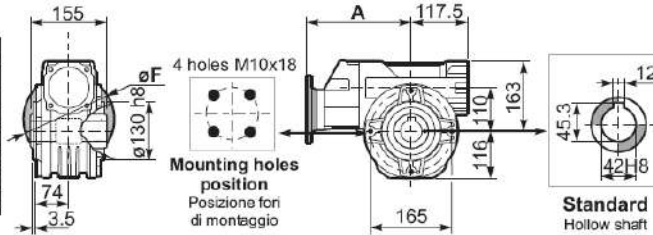
3D dimensions on the Web

Rightangle - Gear
730Nm **P10**

PP10FB... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **41.00 kg**

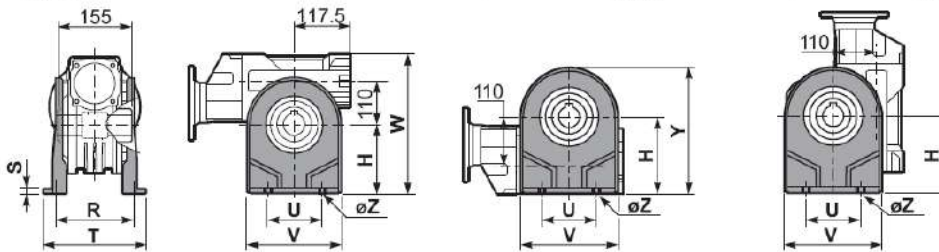
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	214.7
71B5	K063.4.042	160	212.7
80/90B5	K063.4.043	200	214.7
71B14	K063.4.047	105	212.7
80B14	K063.4.046	120	213.7
90B14	K063.4.041	140	214.7



PP10PA... Feet
Piedini

PP10PB... Feet
Piedini

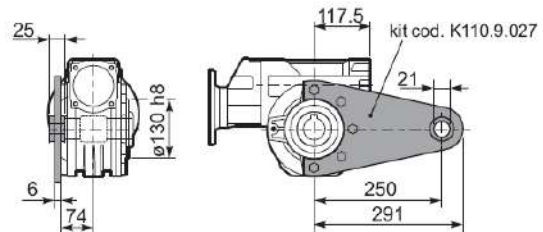
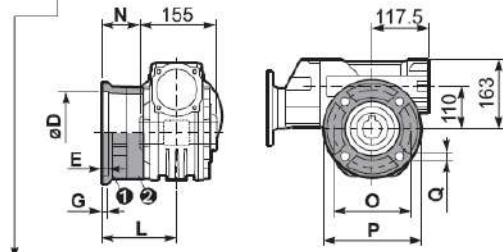
PP10PV... Feet
Piedini



	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	18	190	200	240	288	335	ø14	KS110.9.023

PP10FC... Output flange
Flangia uscita

PP10BR... Reaction arm
Braccio di reazione

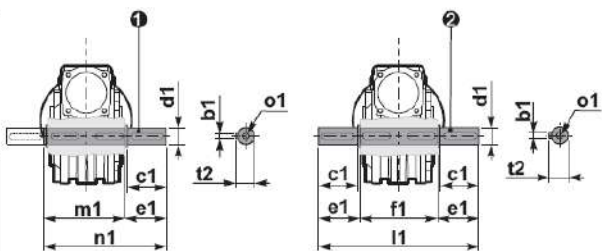


type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 ^{+0.083} _{-0.045}	11	16.5	131.5	54	230	270	13	⊕ K110.9.010
FL	170 ^{+0.083} _{-0.045}	11	16.5	179.5	102	230	270	13	⊕ K110.9.011

type S	øD	E	G	L	N	O	P	Q	kit code
F1	180 ^{+0.040} ₀	5	18	150	72.5	215	250	15	⊕ KS110.9.014
F2	170 ^{+0.083} _{-0.045}	9.5	15	178	100.5	230	270	13	⊕ KS110.9.012
F3	180 ^{+0.040} ₀	5	18	130	52.5	215	250	15	⊕ KS110.9.013

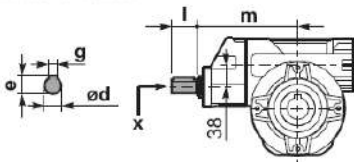
PP10....S... Single Shaft
Albero lento semplice

PP10....D... Double Shaft
Albero lento bispo.



⊕ kit cod. K110.5.028 type B ⊕ kit cod. K110.5.029 type B

RP10FB... Input shaft
Albero in entrata



	ød	e	g	l	m	x
type B	19 j5	21.5	6	35	205	M6x16
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 ^{+0.009} _{-0.020}	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-



303 Rightangle - Gear 030+030

30Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce								input speed (n ₁) = 1400 min ⁻¹					
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{in} [kW]	Output torque M ₂ [Nm]	Service factor f.s.	Nominal power P _{in} [kW]	Nominal torque M ₂ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							A	B	O	P			
9.3	150	0.06	29	1.0	0.06	30	B		B-C		48	1.44	01
6.7	210	0.06	39	0.8	0.05	30	B		B-C		45	1.44	02
4.7	300	0.06*	30	<0.8	0.04	30	B		B-C		36	1.44	03
3.1	450	0.06*	30	<0.8	0.03	30	B		B-C		33	1.44	04
2.3	600	0.06*	30	<0.8	0.02	30	B		B-C		30	1.44	05
1.6	900	0.06*	30	<0.8	0.02	30	B		B-C		27	1.44	06
1.2	1200	0.06*	30	<0.8	0.01	30	B		B-C		26	1.44	07
0.8	1830	0.06*	30	<0.8	0.01	30	B		B-C		24	1.44	08
0.6	2400	0.06*	30	<0.8	0.01	30	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 M₂
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M₂

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. [For complete documentation please visit our web site.](#)

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. [Per la documentazione completa consulta il nostro sito.](#)

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. [Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.](#)

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. [Para documentación completa, consultar nuestra Web.](#)

LUBRICATION 303 Oil Quantity 0.03/0.03 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
25	300	1800
15	400	2000

Input shaft
albero in entrata

n ₁ [min ⁻¹]	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

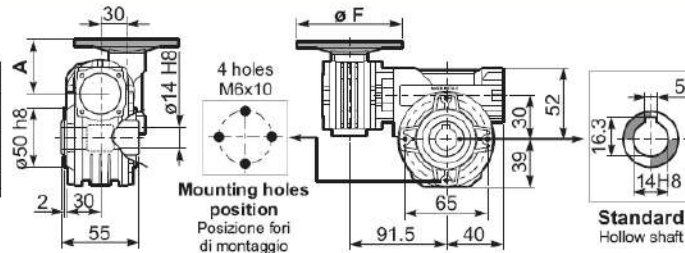


3D dimensions on request Rightangle - Gear **30Nm** **303**

P303**FB**... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **2.15 kg**

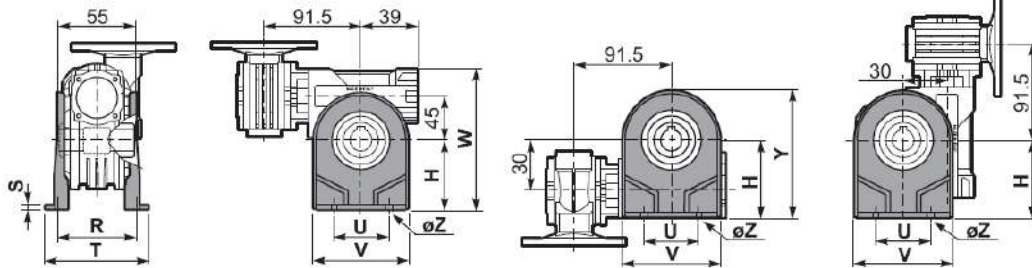
M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



P303**PA**... Feet
Piedini

P303**PB**... Feet
Piedini

P303**PV**... Feet
Piedini

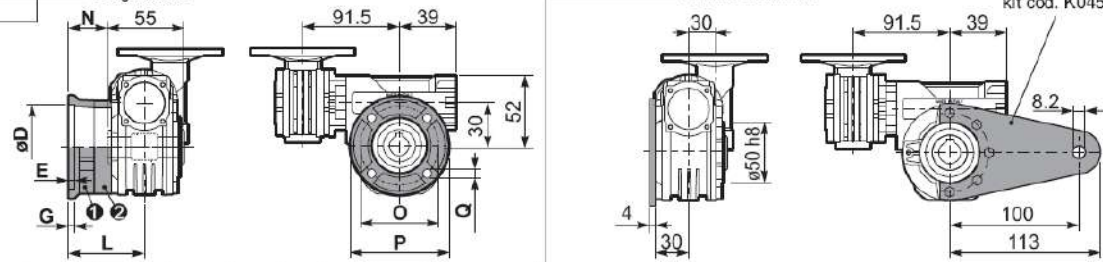


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	55	66	3	87	50	78	94	107	ø6.5	K030.9.022
type S	52	66	3	87	52	90	91	104	ø6.5	KS030.9.023

P303**FC**... Output flange
Flangia uscita

P303**BR**... Reaction arm
Braccio di reazione

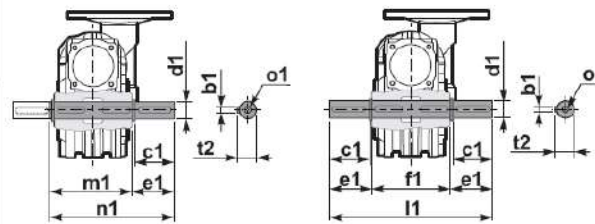
kit cod. K045.9.02



type B	øD	E	G	L	N	O	P	Q	kit code
FC	50 ^{+0.15} _{-0.05}	6	6	50.5	23	68	80	7	⊕ K030.9.010
FL	60 ^{+0.15} _{-0.05}	6	6	55.5	28	87	110	8.5	⊕ K030.9.011
type S	øD	E	G	L	N	O	P	Q	kit code
F1	40 ^{+0.15} _{-0.10}	3.5	5.5	49	21.5	56	80	6.5	⊕ KS030.9.012

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

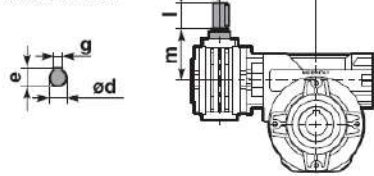
P303...**D**... Double Shaft
Albero lento bisp.



⊕ kit cod. K030.5.028 type B

⊙ kit cod. K030.5.029 type B

R303**FB**... 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 ^{-0.005} _{-0.020}	35.5	55	126	59	94.5	15.8	M5x14
type S	-	-	-	-	-	-	-	-	-	-



453 Rightangle - Gear 045+030

60Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce										input speed (n ₁) = 1400 min ⁻¹			
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{in} [kW]	Output torque M ₂₅ [Nm]	Service factor f.s.	Nominal power P _{in} [kW]	Nominal torque M ₂₅ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							A	B	O	P			
							56	63	56	63			
10.0	140	0.12	57	1.0	0.13	60	B		B-C		50	2.2	01
7.0	200	0.12	79	0.8	0.09	60	B		B-C		48	2.2	02
5.0	280	0.12*	60	<0.8	0.07	60	B		B-C		45	2.4	03
3.3	420	0.12*	60	<0.8	0.06	60	B		B-C		36	1.6	04
2.5	560	0.12*	60	<0.8	0.05	60	B		B-C		33	2.5	05
1.9	740	0.12*	60	<0.8	0.04	60	B		B-C		30	1.8	06
1.5	920	0.12*	60	<0.8	0.04	60	B		B-C		27	1.5	07
1.3	1120	0.12*	60	<0.8	0.03	60	B		B-C		26	2.5	08
0.9	1480	0.12*	60	<0.8	0.02	60	B		B-C		24	1.8	09
0.8	1840	0.12*	60	<0.8	0.02	60	B		B-C		22	1.5	10
0.6	2400	0.12*	60	<0.8	0.02	60	B		B-C		21	1.2	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 M₂₅.
 Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M₂₅.

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

LUBRICATION 453 Oil
 Quantity 0.09/0.06 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
 Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
25	300	1800
15	400	2000

Input shaft
 albero in entrata

n ₁ [min ⁻¹]	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

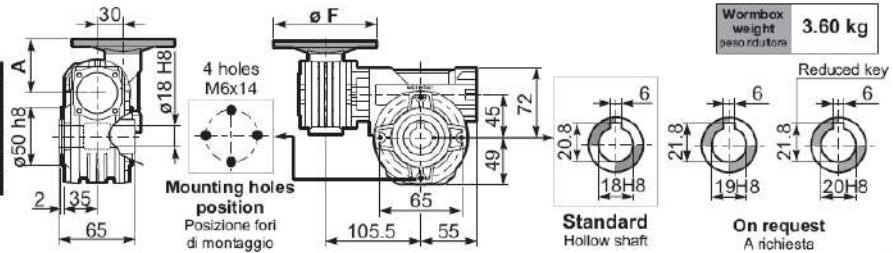


Rightangle - Gear
60Nm 453

3D dimensions on request

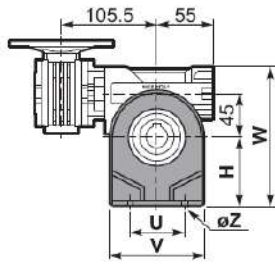
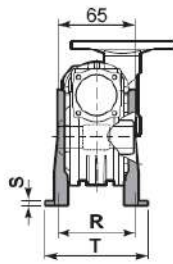
P453FB... Basic wormbox
Riduttrice base

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

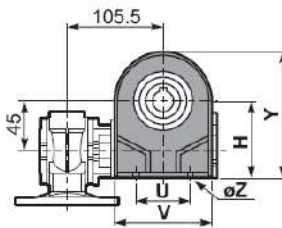


Wormbox weight
peso riduttrice **3.60 kg**

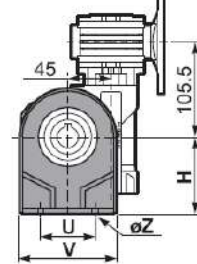
P453PA... Feet
Piedini



P453PB... Feet
Piedini

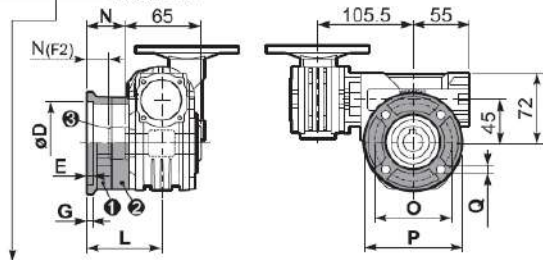


P453PV... Feet
Piedini



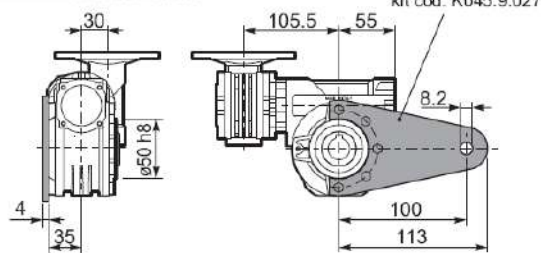
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	72	81	3	100	52	98	121	144	ø10.5	K045.9.022
type S	71	84	8	100	70	90	120	143	ø8	KS045.9.023

P453FC... Output flange
Flangia uscita



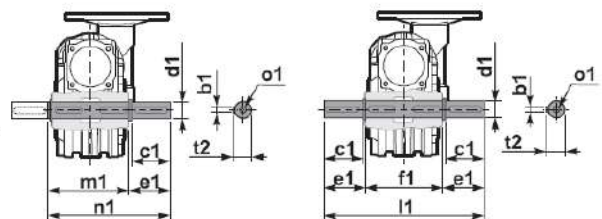
type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 ^{+0.15} _{-0.05}	9	9	60.5	28	87	110	8.5	① K045.9.010
FL	60 ^{+0.15} _{-0.05}	9	9	90.5	58	87	110	8.5	① K045.9.010 ② K045.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	95 ^{+0.20} _{-0.15}	4	11	73.5	41	115	140	9	① KS045.9.013
F2	60 ^{+0.15} _{-0.05}	9	9	60.5	19	87	110	8.5	① KS045.9.010 ② S045.0.204
F3	80 ^{+0.030}	3	8	51.5	19	100	120	9	① KS045.9.014

P453BR... Reaction arm
Braccio di reazione



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

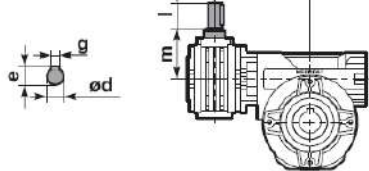
P453...D... Double Shaft
Albero lento bisp.



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 PAM/63
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	ø1
type B	6	32	18 ^{-0.025} _{-0.020}	43	65	151	70	113	20.5	M6x18
type S	6	40	19 ^{-0.025} _{-0.020}	58.5	65	182	70	128.5	21.5	M8x20



503 Rightangle - Gear 050+030
95Nm Rating - Alluminum WORM GEARBOXES

QUICK SELECTION / Selezione veloce input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{Mv} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{2N} [kW]	Nominal torque M_{2N} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							A	B	O	P			
							56	63	56	63			
5.6	252	0.12	97	1.0	0.12	95	B		B-C		47	2.1	01
3.9	360	0.12	124	0.8	0.09	95	B		B-C		42	2.1	02
2.6	540	0.12*	95	<0.8	0.07	95	B		B-C		39	2.1	03
1.9	720	0.12*	95	<0.8	0.05	95	B		B-C		36	2.1	04
1.6	860	0.12*	95	<0.8	0.05	95	B		B-C		32	1.8	05
1.2	1200	0.12*	95	<0.8	0.04	95	B		B-C		27	1.3	06
1.0	1440	0.12*	95	<0.8	0.04	95	B		B-C		26	2.1	07
0.8	1720	0.12*	95	<0.8	0.03	95	B		B-C		25	1.8	08
0.6	2400	0.12*	95	<0.8	0.03	90	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_{2N}
 Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2N}

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

LUBRICATION 503 Oil 0.14 Lt.  0.03 Lt.

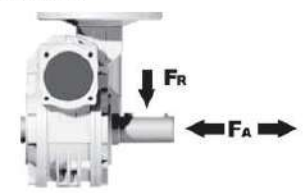
Quantity 0.14/0.03 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

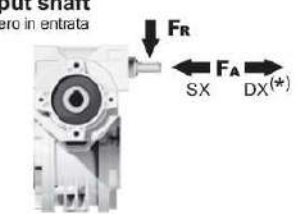
RADIAL AND AXIAL LOADS

Output shaft
 Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
25	480	2500
15	560	2800

Input shaft
 albero in entrata



n_1 [min ⁻¹]	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

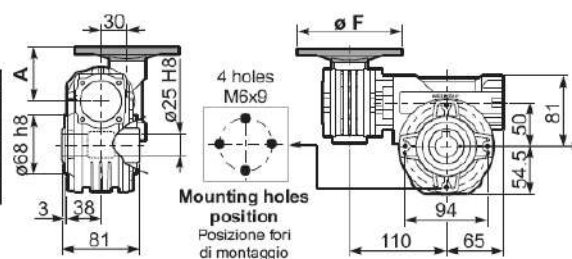
tab. 2



3D dimensions on request Rightangle - Gear **95Nm 503**

P503FB... Basic wormbox
Riduttore base

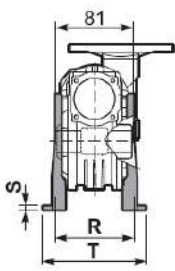
M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



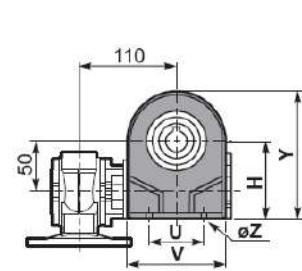
Wormbox weight (peso riduttore) **4.20 kg**

Standard Hollow shaft
On request "type S" Archiata "tipo S"

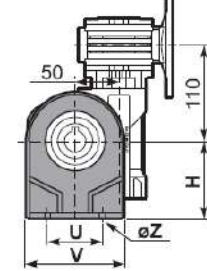
P503PA... Feet
Piedini



P503PB... Feet
Piedini

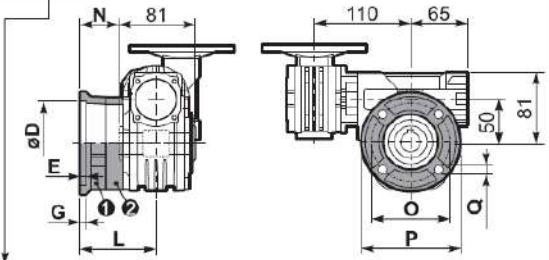


P503PV... Feet
Piedini



	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

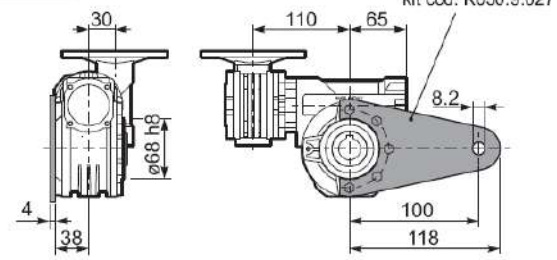
P503FC... Output flange
Flangia uscita



type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 ^{+0.20} _{-0.15}	9	12	85	44.5	90	123	10.5	① K050.9.010 ② -
FL	70 ^{+0.20} _{-0.15}	9	12	114.5	74	90	123	10.5	① K050.9.010 ② K050.0.200

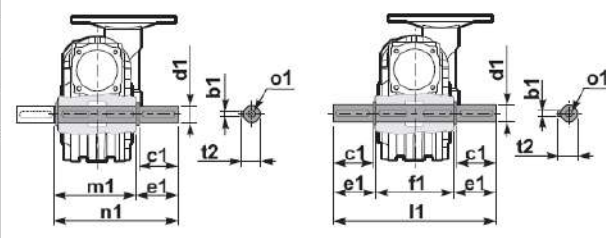
type S	øD	E	G	L	N	O	P	Q	kit code
F1	110 ^{+0.20} _{-0.15}	4	11	83.5	43	130	160	10	KS050.9.012
F2	70 ^{+0.20} _{-0.15}	9	12	76.5	36	90	123	10.5	KS050.9.014
F3	95 ^{+0.025} ₀	4	10	66.5	26	115	140	10	KS050.9.013

P503BR... Reaction arm
Braccio di reazione



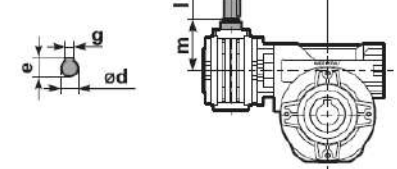
P503....S... Single Shaft
Albero lento semplice

P503....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

R503FB... 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 - ③ -
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 ^{-0.005} _{-0.020}	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 ^{-0.005} _{-0.020}	68.5	81	218	86.5	155	27	M8x20



633 Rightangle - Gear 063+030

200Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce								input speed (n ₁) = 1400 min ⁻¹					
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{in} [kW]	Output torque M _{out} [Nm]	Service factor f.s.	Nominal power P _{nom} [kW]	Nominal torque M _{nom} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							A	B	O	P			
5.6	252	0.18	142	1.4	0.25	200	B		B-C		46	2.7	01
3.9	360	0.18	181	1.1	0.20	200	B		B-C		41	2.7	02
2.6	540	0.12	164	1.2	0.15	200	B		B-C		37	2.7	03
1.9	720	0.12	200	1.0	0.12	200	B		B-C		34	2.7	04
1.3	1080	0.12	265	0.8	0.09	200	B		B-C		30	2.7	05
1.0	1440	0.12*	318	<0.8	0.08	200	B		B-C		27	2.7	06
0.5	2745	0.12*	517	<0.8	0.05	200	B		B-C		23	2.1	07

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

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

LUBRICATION 633 Oil 0.40 Lt. 0.03 Lt.

Quantity 0.40/0.06 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
25	700	3800
15	800	4000

Input shaft
albero in entrata

n ₁ [min ⁻¹]	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

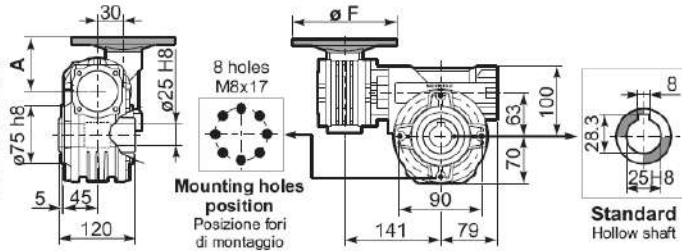
tab. 2



3D dimensions on request Rightangle - Gear **200Nm 633**

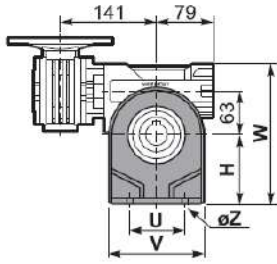
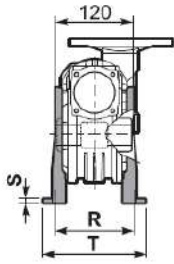
P633FB... Basic wormbox
Riduttore base

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

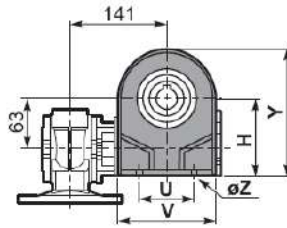


Wormbox weight peso riduttore **7.50 kg**

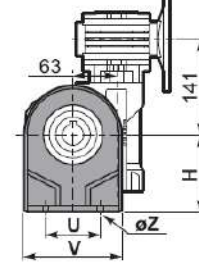
P633PA... Feet
Piedini



P633PB... Feet
Piedini

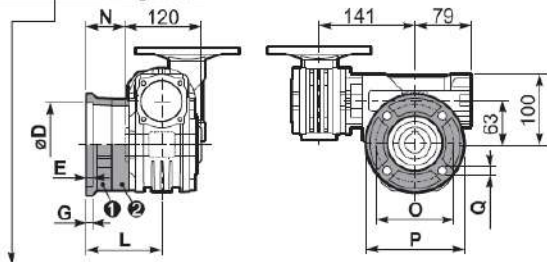


P633PV... Feet
Piedini



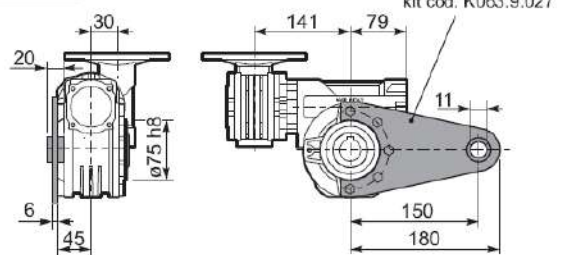
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

P633FC... Output flange
Flangia uscita



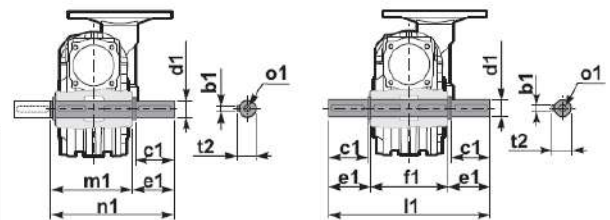
type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 ^{+0.20} / _{+0.15}	7	13	86	26	150	175	11	1 ① K063.9.010 2 ② -
FL	115 ^{+0.20} / _{+0.15}	7	13	116	56	150	175	11	1 ① K063.9.010 2 ② K063.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.20} / _{+0.15}	7	13	102	42	165	200	13	1 ① KS070.9.013 2 ② -
F2	115 ^{+0.20} / _{+0.15}	7	13	116	56	150	175	11	1 ① KS063.9.013 2 ② -
F3	110 ^{+0.035} / ₀	5	11	82	22	130	160	10	1 ① KS063.9.011 2 ② -

P633BR... Reaction arm
Braccio di reazione



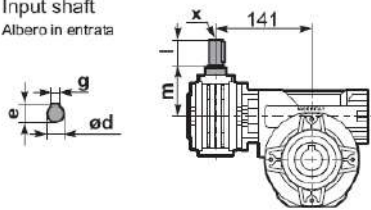
P633...S... Single Shaft
Albero lento semplice

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



① kit cod. K063.5.028 type B ② kit cod. K063.5.029 type B

R633FB... 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 -

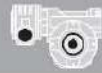
	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 ^{-0.005} / _{-0.020}	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



634 Rightangle - Gear 063+045

230Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce										input speed (n ₁) = 1400 min ⁻¹				
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _M [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{2N} [kW]	Nominal torque M _{2N} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	O	P	Q			
5.6	252	0.18	142	1.6	0.29	230	B		B-C	B-C		46	2.7	01
3.9	360	0.18	186	1.2	0.22	230	B		B-C	B-C		42	2.7	02
2.8	504	0.12	161	1.4	0.17	230	B		B-C	B-C		39	2.7	03
1.9	756	0.12	204	1.1	0.14	230	B		B-C	B-C		33	2.7	04
1.4	1008	0.12	256	0.9	0.11	230	B		B-C	B-C		31	2.7	05
1.1	1332	0.12*	230	<0.8	0.08	230	B		B-C	B-C		30	2.7	06
0.8	1656	0.12*	230	<0.8	0.07	230	B		B-C	B-C		28	2.7	07
0.6	2160	0.12*	230	<0.8	0.06	230	B		B-C	B-C		26	2.7	08
0.6	2520	0.12*	230	<0.8	0.05	230	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_{2N}
 Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2N}

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

LUBRICATION 634 Oil 0.40 Lt. 0.09 Lt.

Quantity 0.40/0.09 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
25	700	3800
15	800	4000

Input shaft
albero in entrata

n ₁ [min ⁻¹]	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

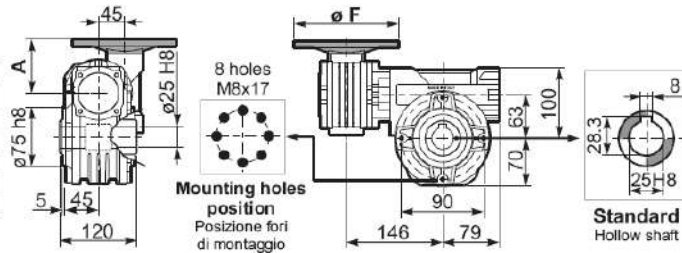


3D dimensions on request Rightangle - Gear **230Nm** **634**

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

Wormbox weight
peso riduttore **8.90 kg**

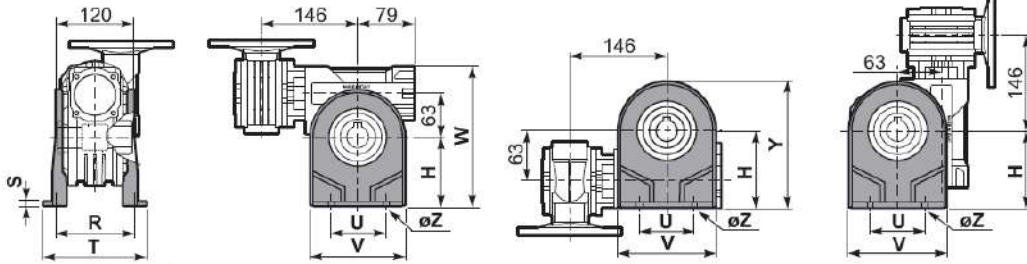
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	72
71B5	K050.4.042	160	70
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5



P634**PA**... Feet
Piedini

P634**PB**... Feet
Piedini

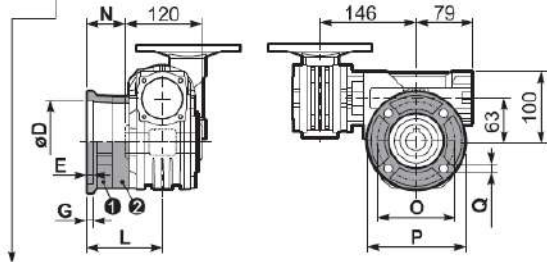
P634**PV**... Feet
Piedini



	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

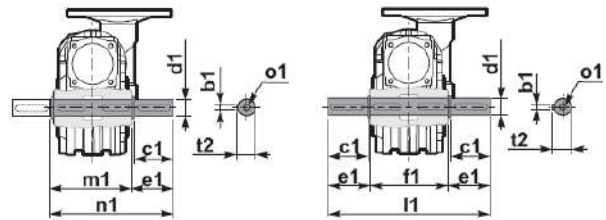


type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 ^{+0.20} / _{+0.15}	7	13	86	26	150	175	11	① K063.9.010 ② -
FL	115 ^{+0.20} / _{+0.15}	7	13	116	56	150	175	11	① K063.9.010 ② K063.0.200

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

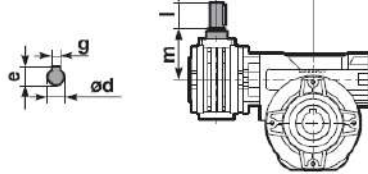
P634.....**S**... Single Shaft
Albero lento semplice

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 FAM71 ② - ③ -
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 ^{-0.1500} / _{0.020}	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



6A3 Rightangle - Gear 63A+030

252Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce							input speed (n ₁) = 1400 min ⁻¹						
Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{in} [kW]	Output torque M _{25M} [Nm]	Service factor f.s.	Nominal power P ₁₀ [kW]	Nominal torque M _{25M} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							A	B	O	P			
5.6	252	0.18	142	1.8	0.32	252	B		B-C		46	2.7	01
3.9	360	0.18	181	1.4	0.25	252	B		B-C		41	2.7	02
2.6	540	0.12	164	1.5	0.18	252	B		B-C		37	2.7	03
1.9	720	0.12	200	1.3	0.15	252	B		B-C		34	2.7	04
1.3	1080	0.12	265	1.0	0.11	252	B		B-C		30	2.7	05
1.0	1440	0.12	318	0.8	0.10	252	B		B-C		27	2.7	06
0.5	2745	0.12*	210	<0.8	0.05	210	B		B-C		23	2.1	07

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 M₂₅
 Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M₂₅

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. [For complete documentation please visit our web site.](#)

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. [Per la documentazione completa consulta il nostro sito.](#)

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. [Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.](#)

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. [Para documentación completa, consultar nuestra Web.](#)

LUBRICATION 6A3 Oil 0.40 Lt. 0.06 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
25	700	3800
15	800	4000

Input shaft
albero in entrata

n ₁ [min ⁻¹]	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 request Rightangle - Gear **252Nm 6A3**

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

Wormbox weight peso riduttore **8.90 kg**

Mounting holes position
Posizione fori di montaggio

Standard Hollow shaft
On request Arichiesa

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

type	øD	E	G	L	N	O	P	Q	kit code
type B									
FC	130 ^{+0.20} / _{+0.15}	7	13	85	25	165	200	13	1 Ⓚ070.9.010 2 Ⓚ070.9.010 3 Ⓚ070.0.200
FL	130 ^{+0.20} / _{+0.15}	7	13	111	51	165	200	13	
type S									
F1	130 ^{+0.20} / _{+0.15}	7	13	111	51	165	200	13	1 ⓀS070.9.014 2 ⓀS063.9.013 3 ⓀS070.9.011
F2	115 ^{+0.20} / _{+0.15}	7	13	116	56	150	175	11	
F3	110 ^{+0.035} / ₀	5	13.5	84.5	24.5	130	160	11	

P6A3BR... Reaction arm
Braccio di reazione

kit cod. K063.9.027

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

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

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 - 3 -
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	ø1
type B	8	60	28 ^{-0.030} / _{-0.020}	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-

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



6A4 Rightangle - Gear 63A+045

264Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_m [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_n [kW]	Nominal torque M_n [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	O	P	Q			
							63	71	56	63	71			
5.6	252	0.18	142	1.9	0.33	264	B		B-C	B-C		46	2.7	01
3.9	360	0.18	186	1.4	0.26	264	B		B-C	B-C		42	2.7	02
2.8	504	0.18	241	1.1	0.20	264	B		B-C	B-C		39	2.7	03
1.9	756	0.12	204	1.3	0.16	264	B		B-C	B-C		33	2.7	04
1.4	1008	0.12	256	1.0	0.12	264	B		B-C	B-C		31	2.7	05
1.1	1332	0.12	327	0.8	0.10	264	B		B-C	B-C		30	2.7	06
0.8	1656	0.12*	264	<0.8	0.08	264	B		B-C	B-C		28	2.7	07
0.6	2160	0.12*	264	<0.8	0.07	264	B		B-C	B-C		26	2.7	08
0.6	2520	0.12*	264	<0.8	0.06	264	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_{2M}
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2M}

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.
For complete documentation please visit our web site.

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.
Per la documentazione completa consulta il nostro sito.

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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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.
Para documentación completa, consultar nuestra Web.

LUBRICATION 6A4 Oil 0.40 Lt. 0.09 Lt.

Quantity 0.40/0.06 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n_2 [min ⁻¹]	FA [N]	FR [N]
25	700	3800
15	800	4000

Input shaft
albero in entrata

n_1 [min ⁻¹]	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

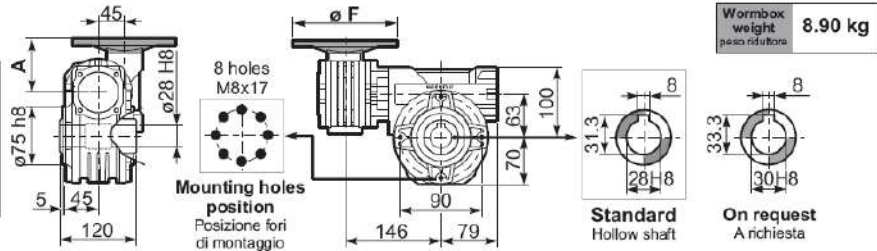


3D dimensions on request

Rightangle - Gear
264Nm 6A4

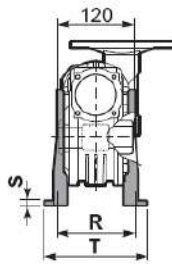
P6A4FB... Basic wormbox
Riduttore base

M. flanges	Kit code	øF	A
63B5	K050.4.041	138	72
71B5	K050.4.042	160	70
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5

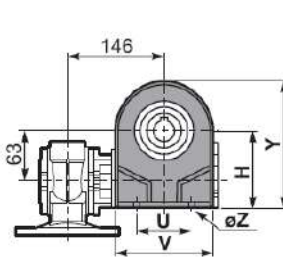


Wormbox weight
peso riduttore **8.90 kg**

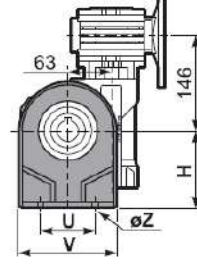
P6A4PA... Feet
Piedini



P6A4PB... Feet
Piedini

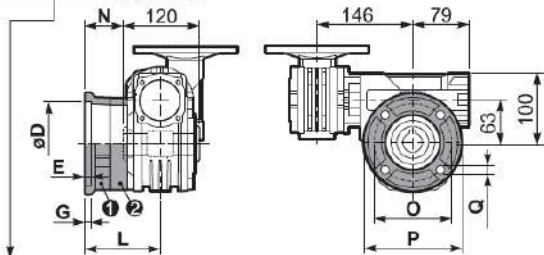


P6A4PV... Feet
Piedini



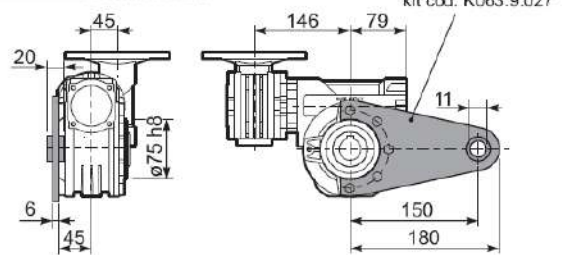
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

P6A4FC... Output flange
Flangia uscita



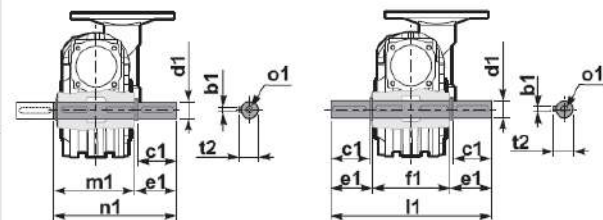
type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 ^{+0.20} / _{-0.15}	7	13	85	25	165	200	13	① K070.9.010 ②
FL	130 ^{+0.20} / _{-0.15}	7	13	111	51	165	200	13	① K070.9.010 ② K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.20} / _{-0.15}	7	13	111	51	165	200	13	① KS070.9.014 ②
F2	115 ^{+0.20} / _{-0.15}	7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

P6A4BR... Reaction arm
Braccio di reazione



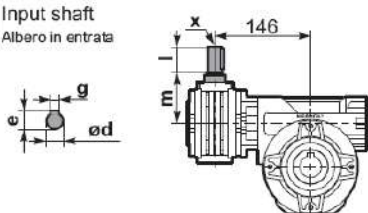
P6A4.....S... Single Shaft
Albero lento semplice

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 ^{-0.005} / _{-0.020}	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



854 Rightangle - Gear 085+045
450Nm

Rating - Alluminum WORM GEARBOXES



▪ **QUICK SELECTION / Selezione veloce**

input speed (n₁) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{TM} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1N} [kW]	Nominal torque M _{2N} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	O	P	Q			
							63	71	56	63	71			
10	140	0.37	205	1.6	0.58	320	B		B-C	B-C		58	4.5	01
7.1	196	0.37	257	1.2	0.46	320	B		B-C	B-C		52	4.7	02
5.0	280	0.37	332	1.4	0.50	450	B		B-C	B-C		47	4.7	03
3.6	392	0.37	435	1.0	0.38	450	B		B-C	B-C		44	4.7	04
2.4	588	0.25	371	1.2	0.30	450	B		B-C	B-C		37	4.7	05
1.8	784	0.25	455	1.0	0.25	450	B		B-C	B-C		34	4.7	06
1.4	1036	0.18	420	1.1	0.19	450	B		B-C	B-C		33	4.7	07
1.1	1288	0.18	474	0.9	0.17	450	B		B-C	B-C		30	4.7	08
0.7	1960	0.12	449	1.0	0.12	450	B		B-C	B-C		28	4.7	09
0.5	2856	0.12	584	0.8	0.09	450	B		B-C	B-C		25	4.7	10

Motor Flanges Available Flange Motore Disponibile
 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 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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

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

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tiveia Oil WB	Glygoyl 30 SHC 630

tab. 1

▪ **RADIAL AND AXIAL LOADS**

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
25	1000	5000
15	1160	5800

Input shaft
albero in entrata

n ₁ [min ⁻¹]	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

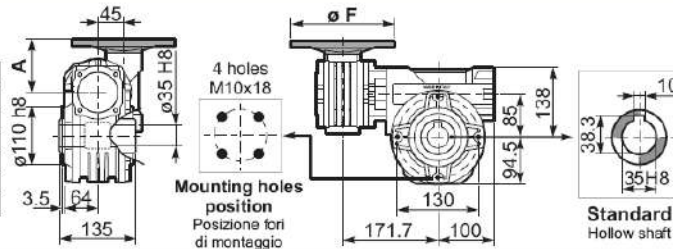


3D dimensions on request Rightangle - Gear **450Nm** **854**

P854**FB**... Basic wormbox
Riduttore base

Wormbox weight
peso riduttore **19.50 kg**

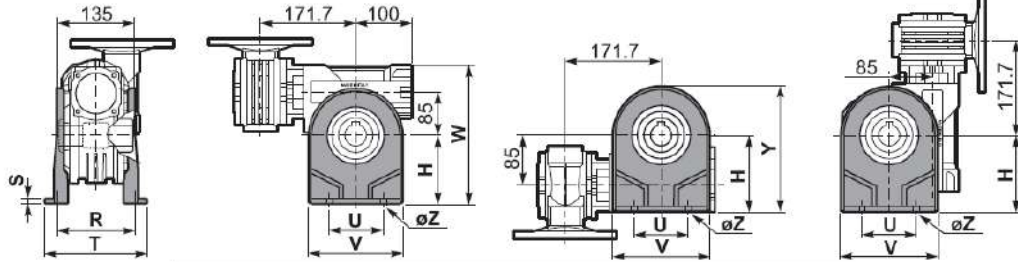
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	72
71B5	K050.4.042	160	70
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5



P854**PA**... Feet
Piedini

P854**PB**... Feet
Piedini

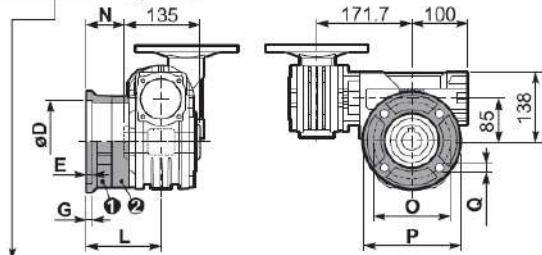
P854**PV**... Feet
Piedini



	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	-	-	-	-	-	-	-	-	-	-

P854**FC**... Output flange
Flangia uscita

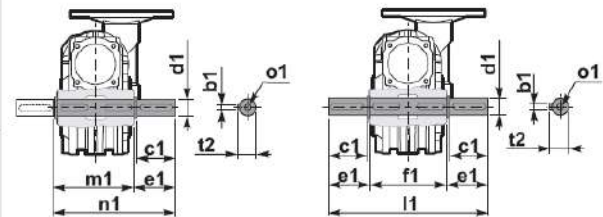
P854**BR**... Reaction arm
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 ^{+0.02} _{+0.01}	5	16	108	40.5	176	205	13	Ⓚ K085.9.010
FL	152 ^{+0.02} _{+0.01}	5	16	148.5	81	176	205	13	Ⓚ K085.9.010 Ⓚ K085.0.201
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.040} ₀	5	13	117.5	50	165	200	11.5	Ⓚ KS085.9.012
F2	152 ^{+0.02} _{+0.01}	5	15	147.5	80	180	205	12.5	Ⓚ KS085.9.013
F4	130 ^{+0.040} ₀	5	13	106.5	39	165	200	13	Ⓚ KS085.9.015

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

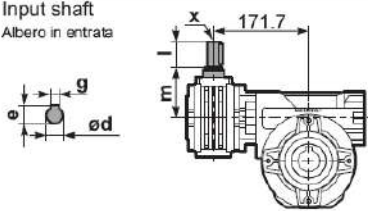
P854...**D**... Double Shaft
Albero lento bisp.



Ⓚ kit cod. K085.5.028 type B

Ⓚ kit cod. K085.5.029 type B

R854**FB**... Input shaft
Albero in entrata



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

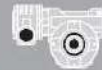
	b1	c1	d1	e1	f1	l1	m1	n1	t2	ø1
type B	10	60	35 ^{+0.020} _{-0.020}	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



115 Rightangle - Gear 110+050

850Nm

Rating - Alluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n₁) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _M [kW]	Output torque M ₂ [Nm]	Service factor f.s.	Nominal power P _{FN} [kW]	Nominal torque M _{FN} [Nm]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency RD	Tooth Module Mn [mm]	Ratios code
							B	C	D	O	P	Q	R			
							63	71	80	56	63	71	80			
6.7	210	0.75	591	1.3	0.95	750	B	B		B-C	B-C	B		55	5.6	01
4.7	300	0.75	752	1.1	0.85	850	B	B		B-C	B-C	B		49	5.6	02
3.3	420	0.55	741	1.1	0.63	850	B	B		B-C	B-C	B		47	5.6	03
2.6	540	0.55	851	1.0	0.55	850	B	B		B-C	B-C	B		42	5.6	04
1.8	780	0.37	748	1.1	0.42	850	B	B		B-C	B-C	B		38	5.6	05
1.3	1080	0.25	681	1.2	0.31	850	B			B-C	B-C			37	5.6	06
1.1	1290	0.25	770	1.1	0.28	850	B			B-C	B-C			35	5.6	07
0.8	1800	0.25	921	0.9	0.23	850	B			B-C	B-C			30	5.6	08
0.7	2040	0.18	751	1.1	0.20	850	B			B-C	B-C			30	5.6	09
0.6	2400	0.18	825	1.0	0.19	850	B			B-C	B-C			28	5.6	10
0.5	3000	0.12	638	1.3	0.16	850	B			B-C	B-C			26	5.6	11

A) Motor Flanges Available Flange Motore Disponibili
B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione
C) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione
D) 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. For the complete documentation please visit our web site.

2.0/0.14 LT	1.5/0.14 LT	1.5/0.14 LT	2.0/0.14 LT	2.0/0.14 LT	2.0/0.14 LT
AGIP	BP	SHELL	KLUBER	MOBIL	
Tellium VSF 320	Energol SGXP220	Tivela Oil WB	Syntheso D220 EP	Glygoyl 30	

tab. 1

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs - und Inbetriebnahmeanleitungen finden Sie unter.

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

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

n ₂ [min ⁻¹]	FA [N]	FR [N]
25	1200	6000
15	1400	7000

Input shaft
albero in entrata

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

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

tab. 2

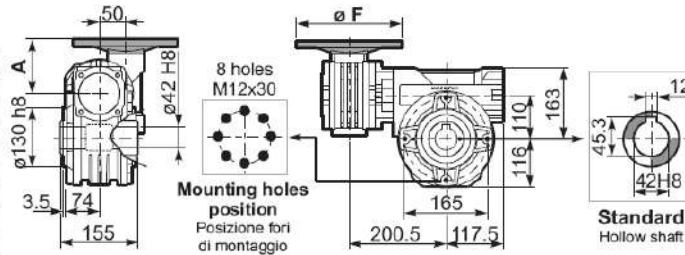


3D dimensions on request Rightangle - Gear **850Nm 115**

P115FB... Basic wormbox
Riduttore base

Wormbox weight
peso scilatura **38.00 kg**

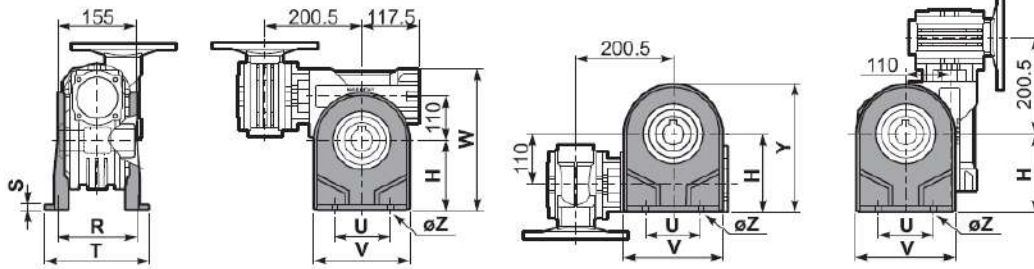
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	76.5
71B5	K050.4.042	160	74.5
80B5	K050.4.043	200	76.5
56B14	KC40.4.049	80	76
63B14	K050.4.047	90	78.5
71B14	K050.4.045	105	76
80B14	K050.4.046	120	76.5



P115PA... Feet
Piedini

P115PB... Feet
Piedini

P115PV... Feet
Piedini

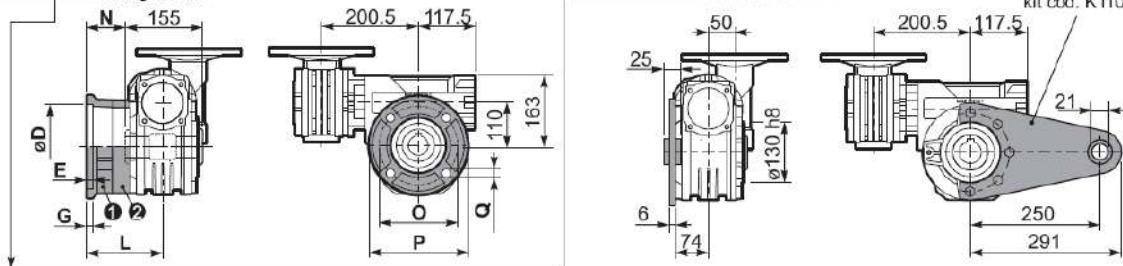


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	22	224	200	240	286	333	ø13	K110.9.022
type S	172	160	18	190	200	240	288	335	ø14	KS110.9.023

P115FC... Output flange
Flangia uscita

P115BR... Reaction arm
Braccio di reazione

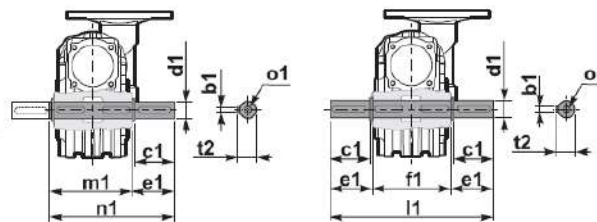
kit cod. K110.9.02



type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 ^{+0.033} / _{-0.043}	11	16.5	131.5	54	230	270	13	⊕ K110.9.010
FL	170 ^{+0.033} / _{-0.043}	11	16.5	179.5	102	230	270	13	⊕ K110.9.011
type S	øD	E	G	L	N	O	P	Q	kit code
F1	180 ^{+0.040} / ₀	5	18	150	72.5	215	250	15	⊕ KS110.9.014
F2	170 ^{+0.033} / _{-0.043}	9.5	15	178	100.5	230	270	13	⊕ KS110.9.012
F3	180 ^{+0.040} / ₀	5	18	130	52.5	215	250	15	⊕ KS110.9.013

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

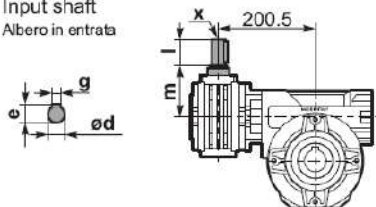
P115.....D... Double Shaft
Albero lento bisp.



⊕ kit cod. K110.5.028 type B

⊕ 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	⊕ K050.5.006 PAM71 ⊕ K050.5.007 PAM80
type S	14 h6	16	5	30	74.5	M5x10	⊕ KS050.5.008 PAM71 ⊕ KS050.5.009 PAM80

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 ^{-0.005} / _{-0.020}	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-





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