

Angletech

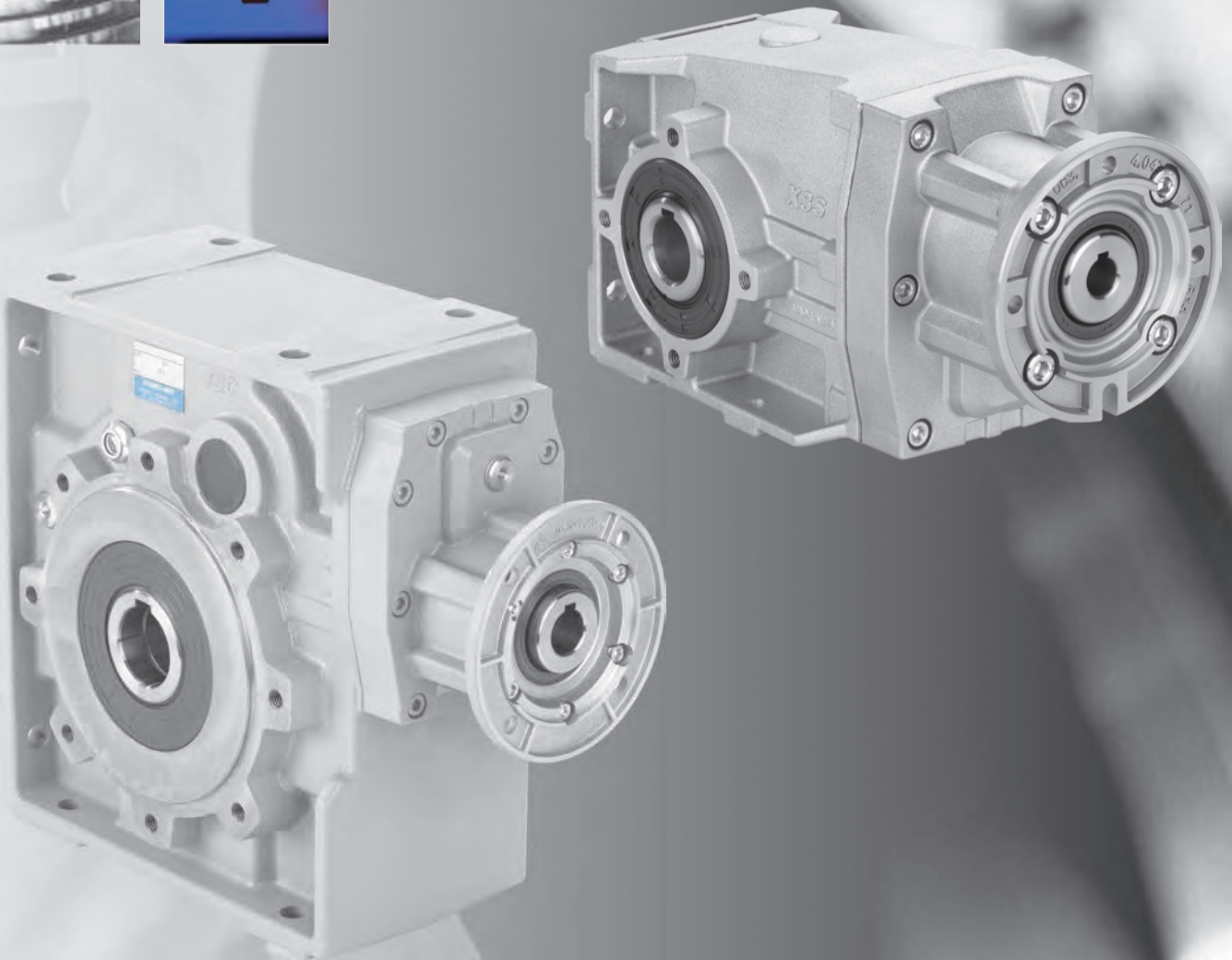
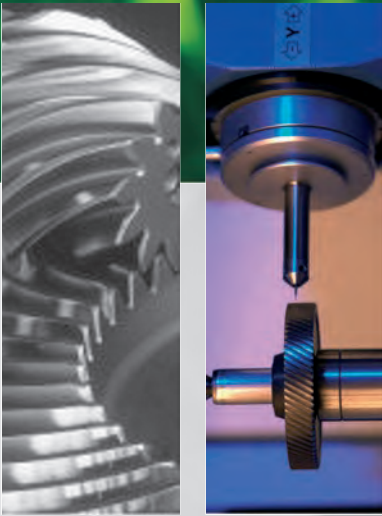
Gears

Cat.: CT-BVM-X-HM017

Helical-bevel gearboxes

Riduttori ortogonali
0.06 ÷ 45kW

**Hypoid and grounded helical gears.
Recover energy, with an high
efficiency drive**



Made in Italy



Dossier according
to 94/8/EG 8. b ii
stored



HYDRO • MEC

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تهران، کیلومتر ۲۱ بزرگراه لشگری (جاده مخصوص کرج)

روبروی پالایشگاه نفت پارس، پلاک ۱۲

Aluminum and cast iron helical bevel gearboxes

A modular and compact product
Very energy efficient drive

Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

Gears

Hardened and ground gears

Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint.

Oil seals

Two oil seals on request

Single-piece aluminum

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

Flange

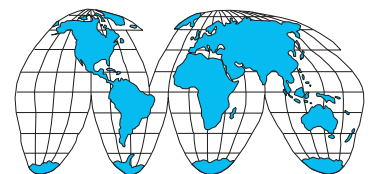
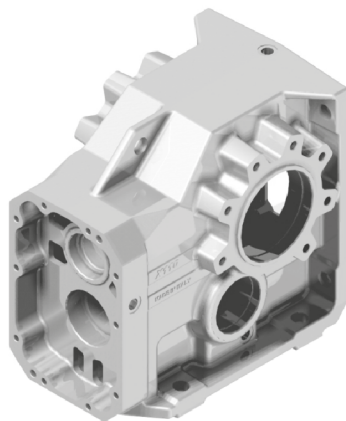
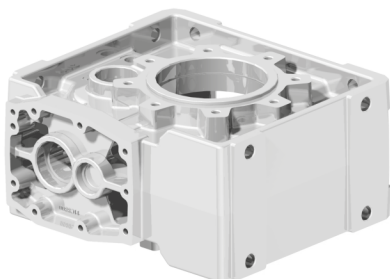
Fully modular to IEC and Compact integrated motor. NEMA C flange

Cast Iron housing

With high tensile strength. Precision machined for alignment of bearings and gearing

Painting

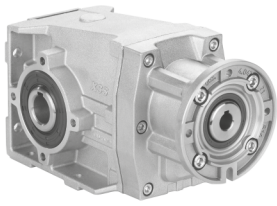
Cast iron gearboxes are painted RAL 7046



World wide sales network.

Specific type datasheet on page...

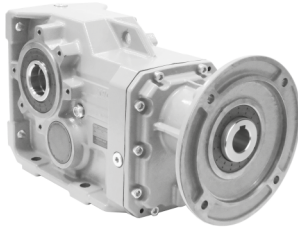
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Types / Tipi
Typen / Types
Tipos

9-5	9-7	9-9	9-11	9-13	9-15	9-17	9-19	9-21
X22S 50Nm	X32S 90Nm	X33S 100Nm	X42A 150Nm	X43A 160Nm	X52A 250Nm	X53A 250Nm	X62A 410Nm	X63A 410Nm

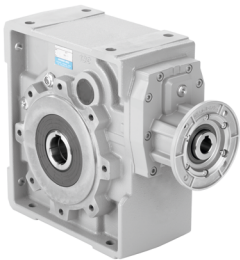
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Types / Tipi
Typen / Types
Tipos

9-23	9-25	9-27	9-29	9-31	9-33	9-35	9-37	9-39	9-41
X73C 675Nm	X74C 675Nm	X83C 1000Nm	X84C 1000Nm	X93C 1600Nm	X94C 1650Nm	X103 3000Nm	X104 3000Nm	X113 4500Nm	X114 4600Nm

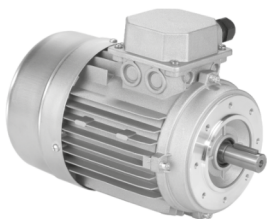
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Types / Tipi
Typen / Types
Tipos

9-43	9-45	9-47	9-49
113C 675Nm	114C 675Nm	133C 1000Nm	134C 1000Nm

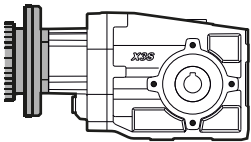
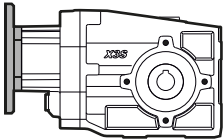
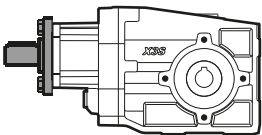
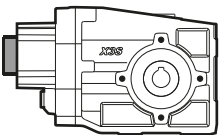
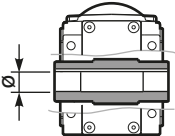
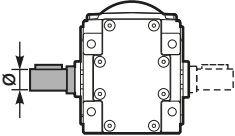
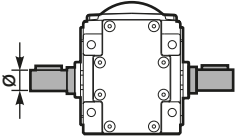
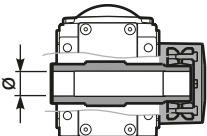
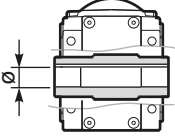
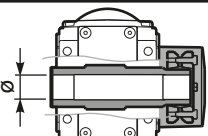
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Types / Tipi
Typen / Types
Tipos

M-1									
56A 56B	63A 63B	71A 71B	80A 80B	90S 90L	100LA 100LB	112M	132S 132M	160M 160L	180M 180L

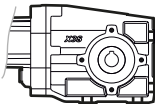
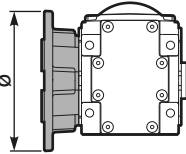
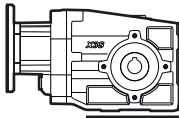
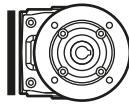
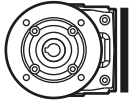
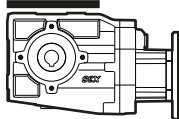
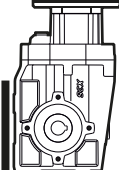
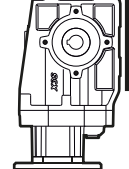
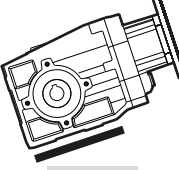
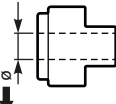
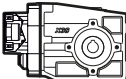
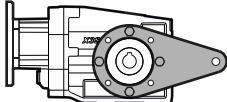
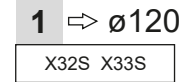
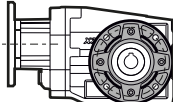
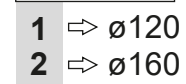
CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Type - Tipo - Typ Type - Tipo	Size - Grandezza - Grösse Taille - Tamaño	Hub - Mozzo corona Hohlwelle Arbre creux Nucleo corona	Rapporto - Ratio Untersetzung Reduction Relacion	Output shaft - Albero uscita Ausgangsflansch Arbre de sortie Brida en salida
M	X22S	C	4.83	-A
Helical-bevel gear Riduttori ortogonali  With IEC motor M  With motor flange P  With male input shaft R  Modular base B Not available for: X93C, X103, X104, X113, X114.	2 Stages Riduzioni Stufen Trains Etapas 3 Stages Riduzioni Stufen Trains Etapas Aluminum Alluminio Aluminium Aluminio X22S X32S X42A X52A X62A X33S X43A X53A X63A 3 Stages Riduzioni Stufen Trains Etapas 4 Stages Riduzioni Stufen Trains Etapas Cast Iron Ghisa Grauguss Fonte Fundicion 113C 114C 133C 134C X73C X74C X83C X84C X93C X94C X103 X104 X113 X114	Hollow output shaft C  Single output shaft A  Double output shaft only for 113/4C, 133/4C, X73/4C, X83/4C, X93/4C, X103/4 and X113/4 B  Shrink Disk (only on the DX side) D  Only on request for Q.ty A richiesta per quantità Stainless steel hub I  Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox Only on request for Q.ty A richiesta per quantità	See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir Tableau données techniques Ver tabla datos técnicos	Hollow output shaft STANDARD X22S -A ⇒ Ø18 -B ⇒ Ø20 X32S X33S -B ⇒ Ø20 -C ⇒ Ø25 X42A X43A -C ⇒ Ø25 -D ⇒ Ø30 X52A X53A -D ⇒ Ø30 -E ⇒ Ø35 X62A X63A -E ⇒ Ø35 -F ⇒ Ø40 X73/4C X83/4C -F ⇒ Ø40 -H ⇒ Ø45 113C 114C -F ⇒ Ø40 -G ⇒ Ø42 133C 134C -F ⇒ Ø40 -H ⇒ Ø45 X93C X94C -H ⇒ Ø45 -J ⇒ Ø50 X103 X104 -K ⇒ Ø60 X113 X114 -T ⇒ Ø70 Single and double output shaft -I X22S ⇒ Ø20 X32/3S ⇒ Ø20 -L X32/3S ⇒ Ø25 X42/3A ⇒ Ø25 -M X52/3A ⇒ Ø30 -N X52/3A ⇒ Ø35 X62/3A ⇒ Ø35 X73/4A* ⇒ Ø35 -V X83/4A ⇒ Ø40* 113/4C ⇒ Ø40* -P 133/4C ⇒ Ø45* -1 X93/4C ⇒ Ø50* -3 X103/4 ⇒ Ø60* -5 X113/4 ⇒ Ø70* * Also available double output shaft  Shrink Disk -U X22S ⇒ Ø20 X32/3S ⇒ Ø20 -Q X42/3A ⇒ Ø30 -R X52/3A ⇒ Ø35 X62/3A ⇒ Ø35 X73/4A ⇒ Ø40 X83/4A ⇒ Ø40 113/4C ⇒ Ø40 -6 133/4C ⇒ Ø45 -7 X93/4C ⇒ Ø50 -8 X103/4 ⇒ Ø65 -9 X113/4 ⇒ Ø75



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

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Type - Tipo - Typ Type - Tipo	Output flange Flangia di uscita Ausgangs Flansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Position de montaje	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte à bornes Posición caja de bornes	
BR	N	-O	B3	-		
 FB Forma base Universal	 N Senza flangia Without flange X22S	 B5 -A =56 (ø120) -B =63 (ø140) -C =71 (ø160) -D =80 (ø200) -E =90 (ø200) -F =100+112 (ø250) -G =132 (ø300) -H =160 (ø350) -I =180 (ø350) -L =200 (ø400) CA =225 (ø450)	 -M ⇒ With coupling X22S X33S X43A -Z ⇒ ø9 (56B5) -0 ⇒ ø11 (63B5) -1 ⇒ ø14 (71B5) X32S X42A X53A X63A X74C X84C 114C 134C -1 ⇒ ø14 (71B5) -2 ⇒ ø19 (80B5) -3 ⇒ ø24 (90B5) X52A X62A 113C 133C X73C X83C X94C -2 ⇒ ø19 (80B5) -3 ⇒ ø24 (90B5) -4 ⇒ ø28 (100B5)	 B3 STANDARD  B6  B7  B8  V5  V6  V8	- Nothing indication: standard bore Nessuna indicazione: foro standard COUPLING  A = 9mm B = 11mm C = 14mm D = 19mm E = 24mm F = 28mm 0 Ready for input coupling Predisposto per giunto 	With Type M specify terminal box position Con tipo M specificare posizione morsettiere  A  B STANDARD  C  D
 BR Braccio d reazione Reaction arm	 1 ⇒ ø120 X32S X33S					
 -F Flangia uscita output flange	 1 ⇒ ø120 2 ⇒ ø160 X42-3A X52-3A X62-3A 2 ⇒ ø160 3 ⇒ ø200 X73C X74C X83C X84C 4 ⇒ ø250 113C 114C X93C X94C C ⇒ ø280 L ⇒ ø280 133C 134C C ⇒ ø320 X103 X104 6 ⇒ ø350 X113 X114 7 ⇒ ø450					
		 Type R Tipo R X22S X33S X43A -1 ⇒ ø14 X32S X42A X53A X63A X74C X84C 114C 134C -2 ⇒ ø19 X52A X62A 113C 133C X73C X83C X94C -3 ⇒ ø24 X93C X104 X114 -4 ⇒ ø28 X103 X113				

FORMULE UTILI / USEFUL FORMULAS / NÜTZLICHE FORMELN / FORMULES UTILES / FÓRMULAS ÚTILES

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotation

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

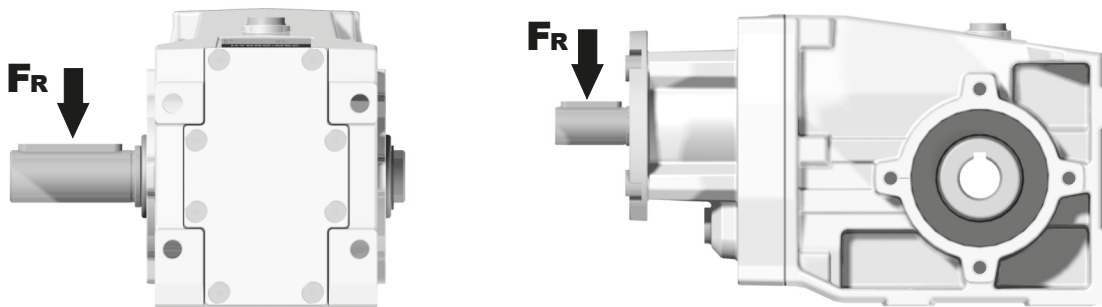
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

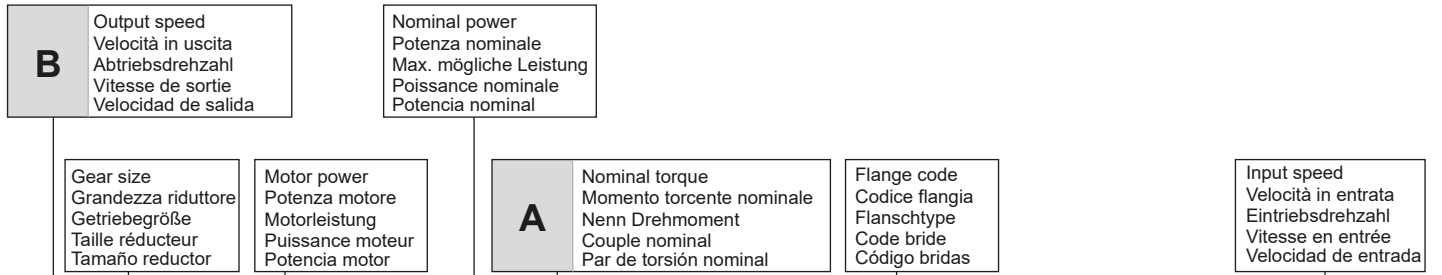
- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée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



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

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

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



X22S Angletech Gear
50Nm

Rating - Aluminum
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce The dynamic efficiency is **0.96** for all ratios **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			Output Shaft	Notes
							-B	-C	-O	-P	-Q		Ratio code
289.7	4.83	0.37	11.7	2.6	0.95	30			C	C		289	01
189.2	7.40	0.37	17.9	1.7	0.62	30			C	C		287	02
146.2	9.58	0.37	23.2	1.7	0.64	40			C	C		199	03
127.5	10.98	0.37	26.6	1.7	0.63	45			C	C		179	04



fs

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

D

Motor flange available Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles	
B) Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montage avec douille de réduction Montaje con casquillo de reducción	
C) Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor	
B) Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien 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	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	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	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)

X22S Angletech Gear
50NmRating - Aluminum
HELICAL-BEVEL GEARBOXES**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratiosinput speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
290	4.83	0.37	12	2.6	0.95	30			C	C		289	01
189	7.40	0.37	18	1.7	0.62	30			C	C		287	02
146	9.58	0.37	23	1.7	0.64	40			C	C		199	03
128	10.98	0.37	27	1.7	0.63	45			C	C		179	04
107	13.07	0.37	32	1.4	0.53	45			C	C		159	05
95	14.66	0.37	35	1.3	0.47	45			C	C		197	06
89	15.79	0.37	38	1.2	0.44	45			C	C		139	07
83	16.81	0.37	41	1.1	0.41	45			C	C		177	08
70	20.00	0.37	48	1.0	0.37	48			C	C		157	09
64	21.93	0.37	53	0.9	0.35	50			C	C		109	10
58	24.18	0.25	39	1.3	0.32	50			C	C		137	11
48.2	29.04	0.25	47	1.1	0.26	50			C	C		99	12
41.7	33.57	0.18	42	1.2	0.23	50			C	C		107	13
36.2	38.67	0.18	48	1.0	0.20	50			C	C		79	14
31.5	44.44	0.18	55	0.9	0.17	50			C	C		97	15
23.7	59.18	0.12	48	1.0	0.13	50			C	C		77	16
19.9	70.24	0.09	45	1.1	0.11	50			C	C		67	17

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

EN Unit **X22S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X22S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X22S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X22S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X22S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.25 LT	0.25 LT	0.25 LT	0.25 LT	0.43 LT	0.31 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

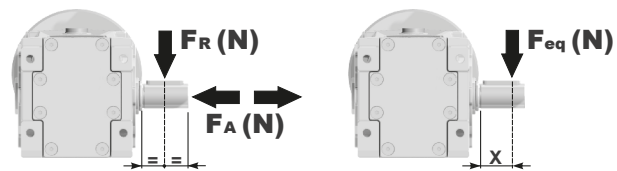
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS**Output shaft**

Albero di uscita

$$F_{eq} = F_R \cdot \frac{101}{X+82}$$

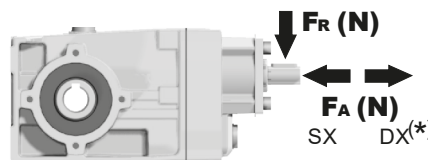


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
400	360	1800	100	440	2200	25	440	2200
250	380	1900	75	440	2200	15	440	2200
150	420	2100	50	440	2200			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA	FR
1400	140	700
900	160	800
500	190	950

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

tab. 2

X32S

Angletech Gear
90Nm

Rating - Aluminum HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
191	7.33	1.5	72	1.0	1.5	70	B				C	C		289	01
125	11.22	1.1	80	1.1	1.2	85	B				C	C		287	02
106	13.26	1.1	95	0.9	0.98	85	B				C	C		199	03
91	15.37	1.1	110	0.8	0.89	90	B				C	C		179	04
78	18.04	0.75	89	1.0	0.76	90	B				C	C		159	05
69	20.30	0.75	100	0.9	0.68	90	B				C	C		197	06
65	21.54	0.75	106	0.9	0.64	90	B				C	C		139	07
59	23.53	0.55	85	1.1	0.58	90	B				C	C		177	08
51	27.62	0.55	100	0.9	0.50	90	B				C	C		157	09
47.6	29.40	0.55	106	0.8	0.47	90	B				C	C		109	10
42.5	32.97	0.37	80	1.1	0.42	90	B				C	C		137	11
36.5	38.37	0.37	93	1.0	0.36	90	B				C	C		99	12
31.1	45.00	0.25	73	1.2	0.31	90	B				C	C		107	13
27.6	50.67	0.25	83	1.1	0.27	90	B				C	C		79	14
23.8	58.73	0.18	73	1.2	0.23	90	B				C	C		97	15
18.1	77.55	0.18	97	0.9	0.18	90	B				C	C		77	16

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 **X32S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X32S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X32S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X32S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X32S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.40 LT	0.60 LT	0.40 LT	0.60 LT	0.85 LT	0.60 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

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

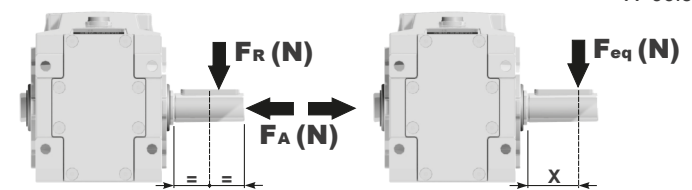
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{115.5}{X+96.5}$$

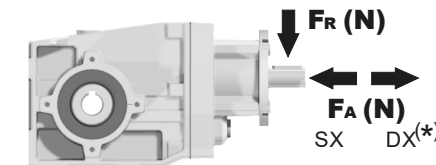


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	400	2000	75	560	2800	15	560	2800
150	450	2250	50	560	2800			
100	500	2500	25	560	2800			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA	FR
1400	240	1200
900	280	1400
500	340	1700

*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

Angletech Gear
90Nm

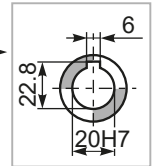
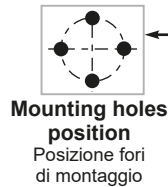
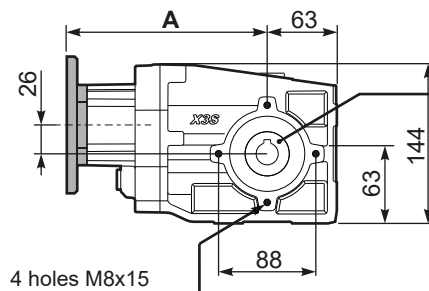
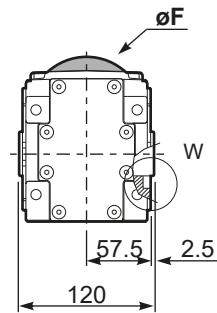
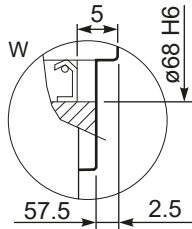
X32S

PX32SC...

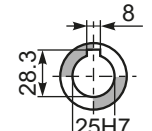
Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **6.30 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	184
71B5	K063.4.042	160	182
80/90B5	K063.4.043	200	184
71B14	K063.4.047	105	182
80B14	K063.4.046	120	184
90B14	K063.4.041	140	184



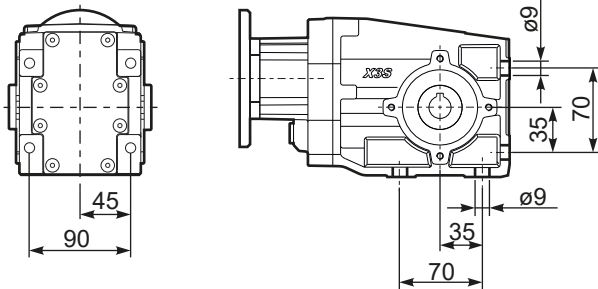
Standard
Hollow shaft



On request
A richiesta

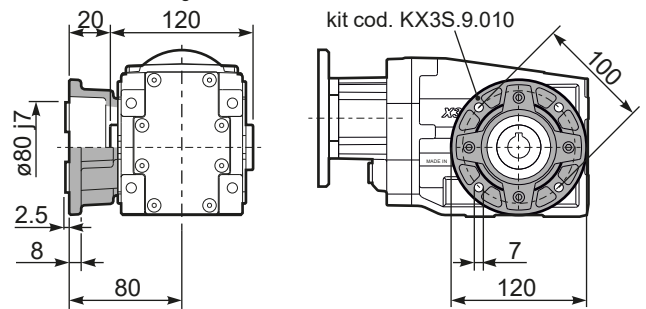
PX32S...FB..

Feet
Piedini



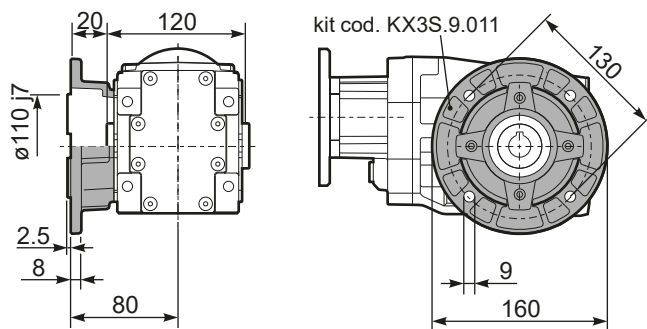
PX32S...-F1..

Output flange
Flangia uscita



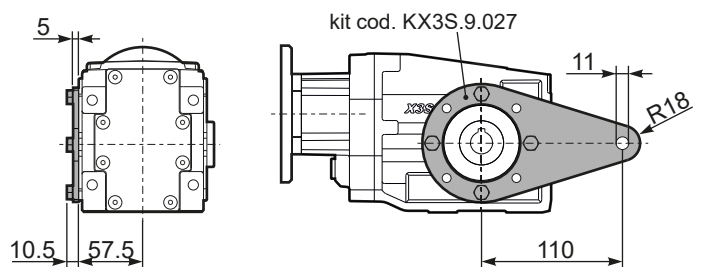
PX32S...-F2..

Output flange
Flangia uscita



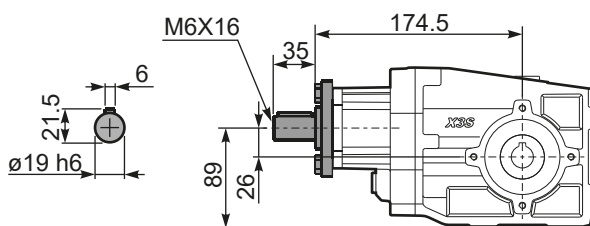
PX32S...BR..

Reaction Arm
Braccio di reazione



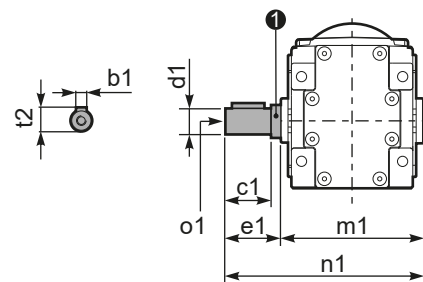
RX32S...

Input shaft
Albero in entrata



PX32SA..

Single output shaft
Albero semplice in uscita



d1	b1	c1	e1	m1	n1	t2	o1	1 kit code
ø20 k6	6	37.5	40	120	160	22.5	M8x20	KX2S.5.028
ø25 ^{-0.005/-0.020}	8	60	63.2	126.8	190	28	M8x20	K063.5.028

X33S

Angletech Gear
100Nm

Rating - Aluminum HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
38.7	36.17	0.37	86	1.2	0.43	100			C	C		17179	02
31.7	44.21	0.37	105	1.0	0.35	100			C	C		19139	03
27.6	50.68	0.25	81	1.2	0.31	100			C	C		17139	04
25.3	55.36	0.25	89	1.1	0.28	100			C	C		17177	05
23.2	60.31	0.25	96	1.0	0.26	100			C	C		15139	06
21.2	65.88	0.25	105	0.9	0.24	100			C	C		15177	07
19.4	72.25	0.18	88	1.1	0.22	100			C	C		10179	08
17.6	79.64	0.18	97	1.0	0.20	100			C	C		13177	09
15.2	92.31	0.18	113	0.9	0.17	100			C	C		15137	10
14.6	95.65	0.18	117	0.9	0.16	100			C	C		9179	11
13.8	101.23	0.12	80	1.2	0.15	100			C	C		10139	12
11.0	127.37	0.12	101	1.0	0.12	100			C	C		7179	13
9.3	151.16	0.09	95	1.0	0.10	100			C	C		6179	14
7.8	178.46	0.09	113	0.9	0.09	100			C	C		7139	15
6.6	211.79	0.06	88	1.1	0.07	100			C	C		6139	16
6.1	231.37	0.06	96	1.0	0.07	100			C	C		6177	17
5.1	273.16	0.06	113	0.9	0.06	100			C	C		7137	18
4.3	324.18	0.06	134	0.7	0.05	100			C	C		6137	19

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 **X33S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X33S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X33S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X33S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X33S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.70 LT	0.65 LT	0.40 LT	0.65 LT	0.95 LT	0.65 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

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

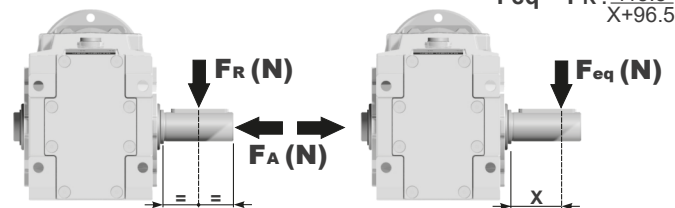
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{115.5}{X+96.5}$$

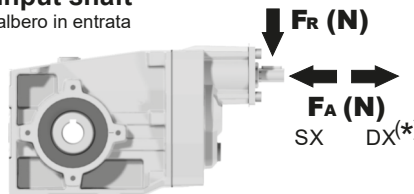


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	400	2000	75	560	2800	15	560	2800
150	450	2250	50	560	2800			
100	500	2500	25	560	2800			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA	FR
1400	140	700
900	160	800
500	190	950

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

tab. 2

X42A

Angletech Gear
150Nm

Rating - Aluminum HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
							63	71	80	90	100 112	71	80	90	100 112		
192	7.29	2.2	104	0.9	2.0	95	B					C	C			2811	01
125	11.20	2.2	159	0.9	2.0	150	B					C	C			288	02
106	13.18	1.5	129	1.2	1.7	150	B					C	C			1911	03
92	15.27	1.1	109	1.4	1.5	150	B					C	C			1711	04
78	17.93	1.1	128	1.2	1.3	150	B					C	C			1511	05
69	20.25	1.1	145	1.0	1.1	150	B					C	C			198	06
65	21.40	1.1	153	1.0	1.1	150	B					C	C			1311	07
60	23.47	0.75	115	1.3	0.98	150	B					C	C			178	08
51	27.55	0.75	135	1.1	0.83	150	B					C	C			158	09
47.9	29.21	0.75	143	1.0	0.78	150	B					C	C			1011	10
42.6	32.88	0.75	161	0.9	0.70	150	B					C	C			138	11
36.7	38.12	0.55	138	1.1	0.60	150	B					C	C			911	12
31.2	44.89	0.55	163	0.9	0.51	150	B					C	C			108	13
27.8	50.34	0.37	122	1.1	0.40	131	B					C	C			711	14
23.9	58.58	0.37	142	1.1	0.39	150	B					C	C			98	15
18.1	77.36	0.25	126	1.2	0.30	150	B					C	C			78	16

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 **X42A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X42A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X42A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X42A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X42A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.60 LT	0.75 LT	0.50 LT	0.70 LT	1.10 LT	0.60 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

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

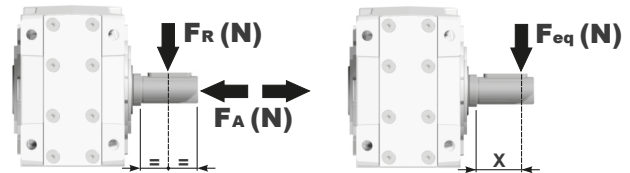
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{123}{X+97}$$



n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	500	2500	75	800	4000	15	960	4800
150	600	3000	50	960	4800			
100	700	3500	25	960	4800			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata

n_1 [min ⁻¹]	FA	FR
1400	240	1200
900	280	1400
500	340	1700

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

tab. 2

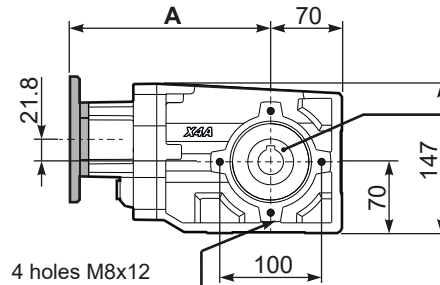
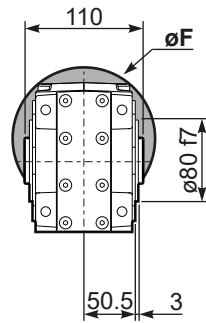
3D dimensions on the Web

Angletech Gear 150Nm **X42A**

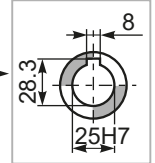
PX42AC... Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **7.82 kg**

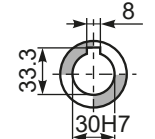
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	199.5
71B5	K063.4.042	160	197.5
80/90B5	K063.4.043	200	199.5
100/112B5	KC40.4.043	250	214.3
71B14	K063.4.047	105	197.5
80B14	K063.4.046	120	199.5
90B14	K063.4.041	140	199.5
100/112B14	KC40.4.041	160	214.5



4 holes M8x12
Mounting holes position
Posizione fori di montaggio

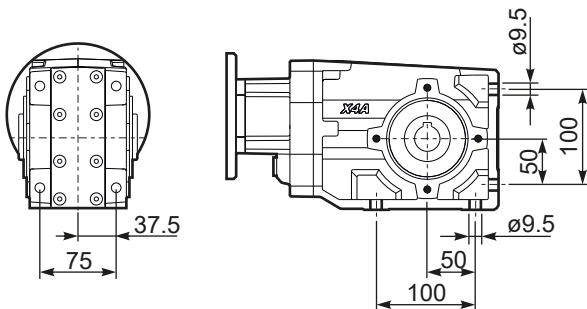


Standard
Hollow shaft

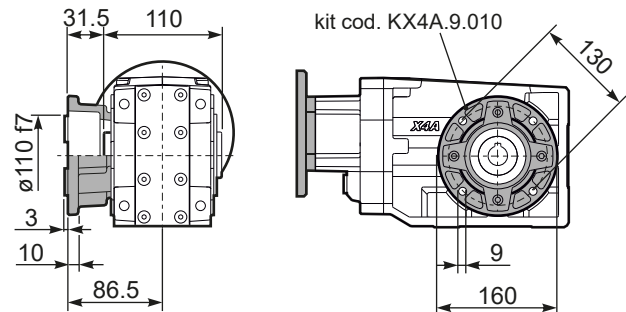


On request
A richiesta

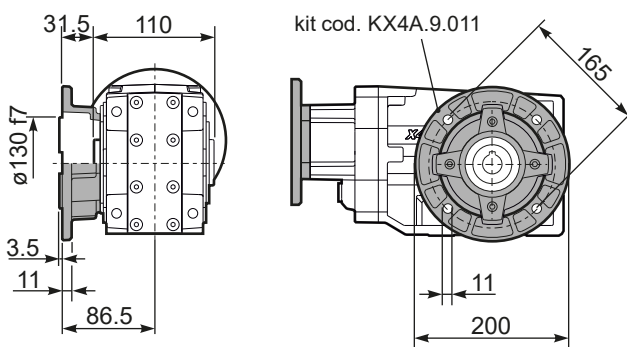
PX42A...FB.. Feet
Piedini



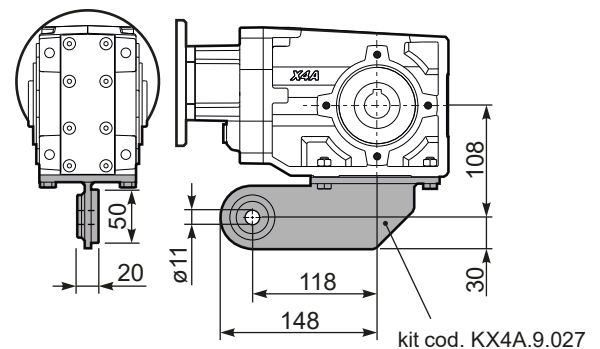
PX42A...-F2.. Output flange
Flangia uscita



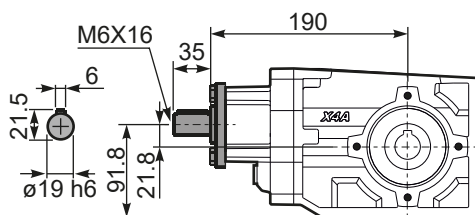
PX42A...-F3.. Output flange
Flangia uscita



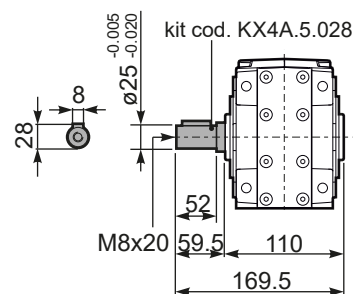
PX42A...BR.. Reaction Arm
Braccio di reazione



RX42A... Input shaft
Albero in entrata



PX42A... Single output shaft
Albero semplice in uscita



X43A

Angletech Gear
160Nm

Rating - Aluminum HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce The dynamic efficiency is 0.94 for all ratios 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			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
27.8	50.35	0.37	119	1.3	0.46	150			C	C		171311	01
25.4	55.22	0.37	131	1.1	0.42	150			C	C		17178	02
23.4	59.92	0.37	142	1.1	0.39	150			C	C		151311	03
21.3	65.72	0.37	156	1.0	0.36	150			C	C		15178	04
19.5	71.78	0.25	115	1.3	0.33	150			C	C		101711	05
17.6	79.44	0.25	127	1.2	0.29	150			C	C		13178	06
15.2	92.08	0.25	147	1.0	0.25	150			C	C		15138	07
14.7	95.03	0.25	152	1.0	0.25	150			C	C		91711	08
11.1	126.55	0.18	155	1.0	0.20	160			C	C		71711	09
10.5	133.15	0.18	163	1.0	0.19	160			C	C		91311	10
9.3	150.18	0.12	119	1.3	0.17	160			C	C		61711	11
7.9	177.30	0.12	140	1.1	0.14	160			C	C		71311	12
6.7	210.42	0.09	133	1.2	0.12	160			C	C		61311	13
6.1	230.79	0.09	146	1.1	0.11	160			C	C		6178	14
5.1	272.47	0.06	113	1.4	0.09	160			C	C		7138	15
4.3	323.37	0.06	134	1.2	0.08	160			C	C		6138	16

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 **X43A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X43A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X43A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X43A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X43A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
0.80 LT	0.80 LT	0.60 LT	0.80 LT	1.20 LT	0.70 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

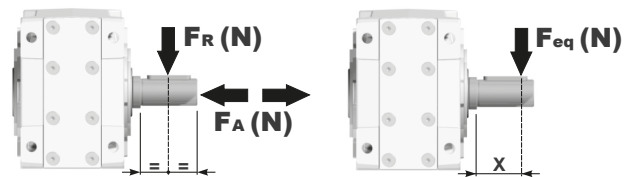
For all details on lubrication and plugs check our website tab. 1
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{123}{X+97}$$

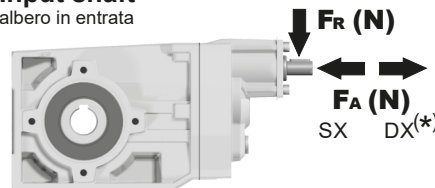


n ₂ [min ⁻¹]	FA	FR	n ₂ [min ⁻¹]	FA	FR	n ₂ [min ⁻¹]	FA	FR
250	500	2500	75	800	4000	15	960	4800
150	600	3000	50	960	4800			
100	700	3500	25	960	4800			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



n ₁ [min ⁻¹]	FA [N]	FR [N]
1400	140	700
900	160	800
500	190	950

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

3D dimensions on the Web

Angletech Gear
160Nm

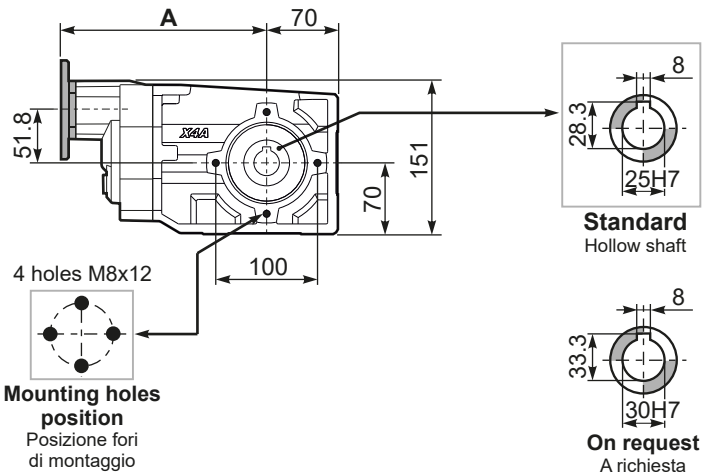
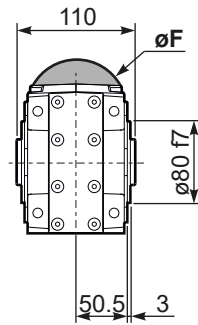
X43A

PX43AC...

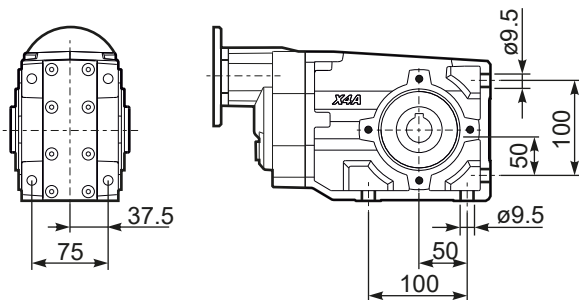
Basic Gearbox
Riduttore base

Gearbox
weight
peso riduttore **7.93 kg**

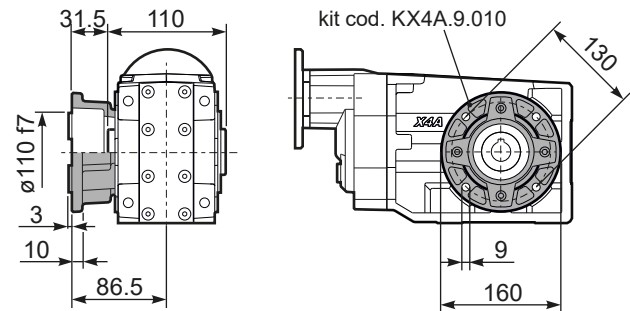
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	205
71B5	K050.4.042	160	202.5
56B14	KC40.4.049	80	202.5
63B14	K050.4.047	90	205
71B14	K050.4.045	105	202.5



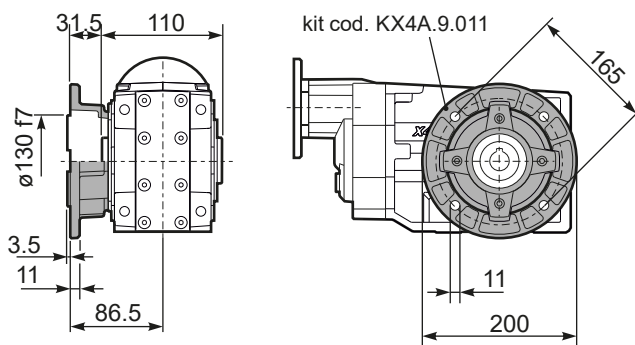
PX43A...FB.. Feet
Piedini



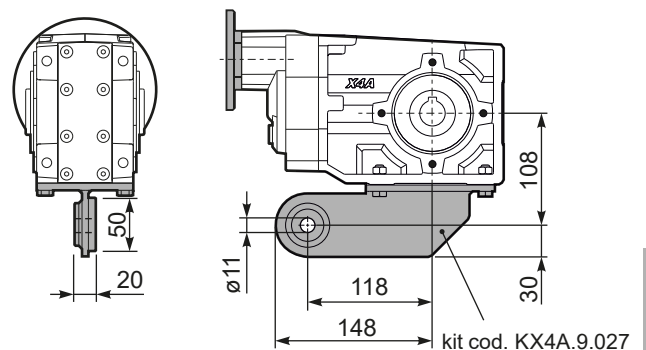
PX43A...-F2.. Output flange
Flangia uscita



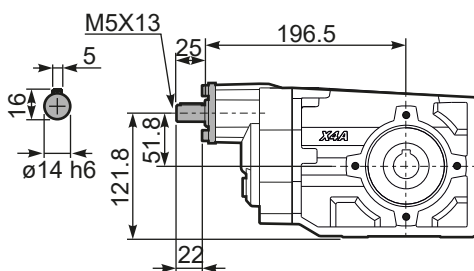
PX43A...-F3.. Output flange
Flangia uscita



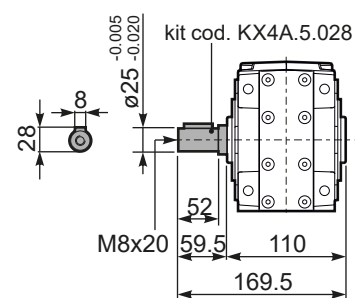
PX43A...BR.. Reaction Arm
Braccio di reazione



RX43A... Input shaft
Albero in entrata



PX43A... Single output shaft
Albero semplice in uscita



X52A

Angletech Gear
250Nm

Rating - Aluminum HELICAL-BEVEL GEARBOXES



■ QUICK SELECTION / Selezione veloce The dynamic efficiency is **0.96** for all ratios input speed (n_1) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges				 Output Shaft	 Ratios code
							-C	-D	-E	-F	-R	-T	-U			
							71	80	90	100 112	80	90	100 112			
232	6.03	3	116	1.2	3.4	135	B							3011	standard ø30	01
151	9.26	3	179	0.9	2.6	155	B							308		02
123	11.36	3	219	1.0	3.1	230	B							2011		03
91	15.36	2.2	218	1.1	2.5	250	B							1611		04
80	17.46	2.2	248	1.0	2.2	250	B							208		05
70	19.97	2.2	284	0.9	1.9	250	B							1311		06
59	23.60	1.5	231	1.1	1.6	250	B							168		07
57	24.45	1.5	239	1.0	1.6	250	B							1111		08
45.6	30.69	1.1	220	1.1	1.2	250	B							138		09
39.6	35.35	1.1	253	1.0	1.1	250	B							811		10
37.3	37.57	1.1	269	0.9	1.0	250	B							118	11	
28.8	48.68	0.75	239	1.0	0.78	250	B							611	12	
25.8	54.33	0.75	267	0.9	0.70	250	B							88	13	
18.7	74.81	0.37	181	1.2	0.43	210	B							68	14	

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 **X52A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X52A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X52A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X52A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X52A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

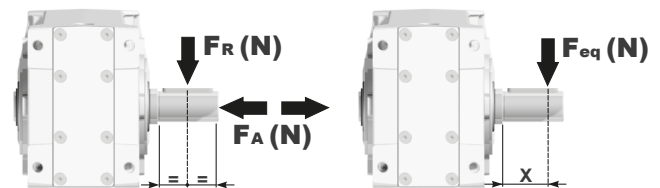
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.90 LT	1.50LT	0.75 LT	1.40 LT	1.95 LT	1.15 LT	Ask
SHELL Omala S4 WE 320			ENI Telium VSF 320			

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

■ RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \frac{144.5}{X+114.5}$$



n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	600	3000	75	820	4100	15	1660	8300
150	700	3500	50	960	4800			
100	800	4000	25	1350	6750			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft
albero in entrata

n_1 [min ⁻¹]	FA	FR
1400	450	2250
900	500	2500
500	600	3000

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

tab. 2

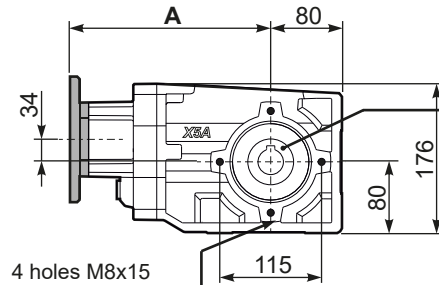
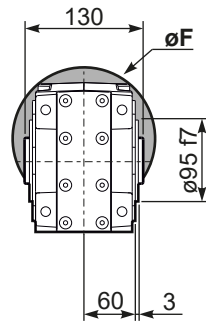
3D dimensions on the Web

Angletech Gear 250Nm **X52A**

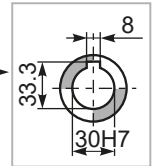
PX52AC... Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **12.80 kg**

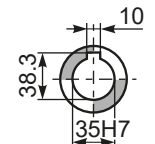
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	234
80/90B5	K023.4.042	200	236
100/112B5	K023.4.043	250	245
80B14	K085.4.046	120	236
90B14	K085.4.045	140	236
100/112B14	K085.4.047	160	245



4 holes M8x15
Mounting holes position
Posizione fori di montaggio

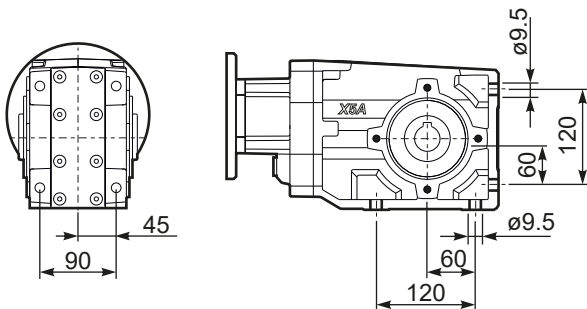


Standard
Hollow shaft

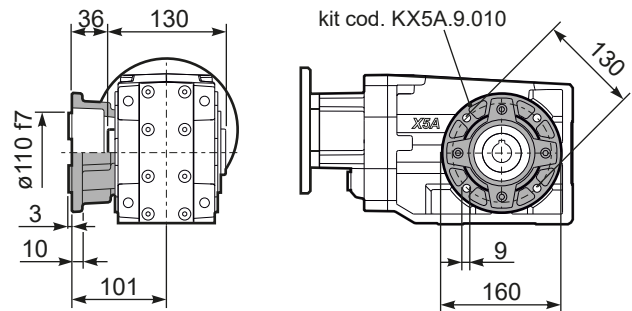


On request
A richiesta

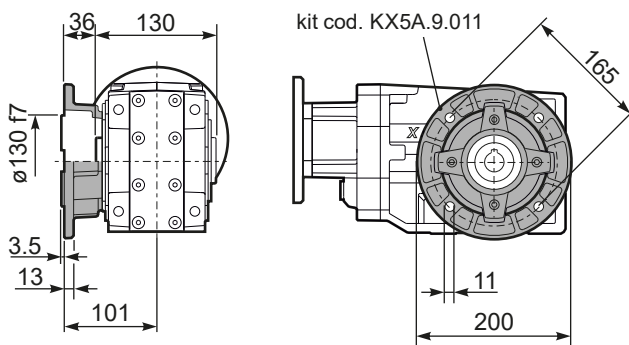
PX52A...FB.. Feet
Piedini



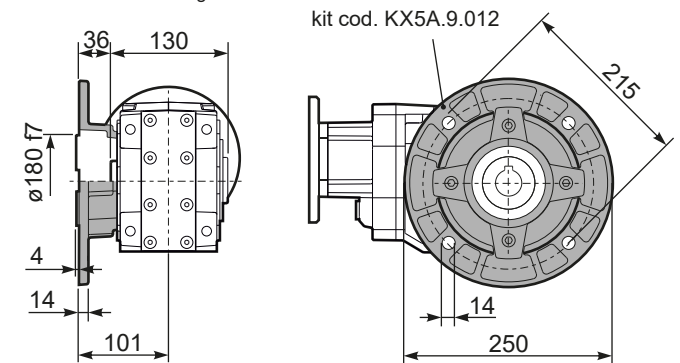
PX52A...-F2.. Output flange
Flangia uscita



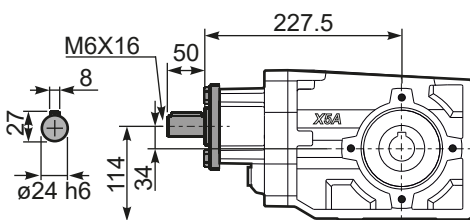
PX52A...-F3.. Output flange
Flangia uscita



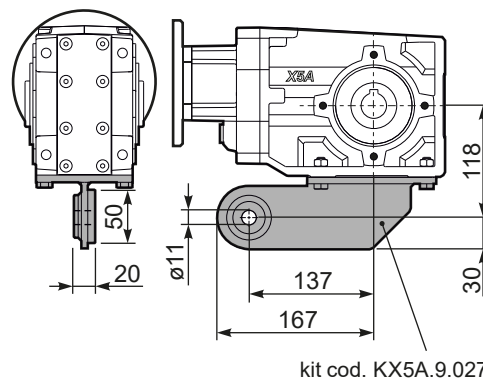
PX52A...-F4.. Output flange
Flangia uscita



RX52A... Input shaft
Albero in entrata

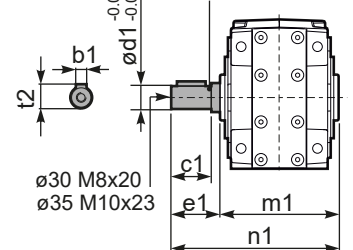


PX52A...BR.. Reaction Arm
Braccio di reazione



PX52A... Single output shaft
Albero semplice in uscita

ø30 kit cod. KX5A.5.028
ø35 kit cod. KX5A.5.030



	b1	c1	d1	e1	m1	n1	t2
ø30	8	60	30	68	134	202	33
ø35	10	60	35	73.5	141	214.5	38

X53A

Angletech Gear
250Nm

Rating - Aluminum
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
24.7	56.76	0.55	201	1.2	0.69	250	B				C	C		191311	01
21.3	65.79	0.55	233	1.1	0.59	250	B				C	C		171311	02
18.1	77.23	0.55	274	0.9	0.50	250	B				C	C		151311	03
16.0	87.23	0.37	207	1.2	0.45	250	B				C	C		19138	04
15.2	92.18	0.37	219	1.1	0.42	250	B				C	C		131311	05
13.9	100.47	0.37	238	1.0	0.39	250	B				C	C		19811	06
12.0	116.45	0.37	276	0.9	0.33	250	B				C	C		17811	07
11.1	125.82	0.25	201	1.2	0.31	250	B				C	C		101311	08
9.9	141.66	0.25	227	1.1	0.28	250	B				C	C		13138	09
8.6	163.16	0.25	261	1.0	0.24	250	B				C	C		13811	10
7.8	178.96	0.18	219	1.1	0.22	250	B				C	C		1788	11
7.2	193.36	0.18	237	1.1	0.20	250	B				C	C		10138	12
6.5	216.84	0.18	265	0.9	0.18	250	B				C	C		71311	13
5.5	252.36	0.12	200	1.3	0.15	250	B				C	C		9138	14
4.8	290.67	0.12	230	1.1	0.13	250	B				C	C		9811	15
4.2	333.23	0.12	263	0.9	0.12	250	B				C	C		7138	16
3.6	383.82	0.12	303	0.8	0.10	250	B				C	C		7811	17
3.1	446.70	0.12*	353	0.7	0.09	250	B				C	C		988	18
2.4	589.85	0.12*	466	0.5	0.07	250	B				C	C		788	19

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M_{2R}
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2R}

EN Unit **X53A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X53A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X53A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X53A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X53A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
1.30 LT	1.55 LT	0.85 LT	1.45 LT	2.10 LT	1.25 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

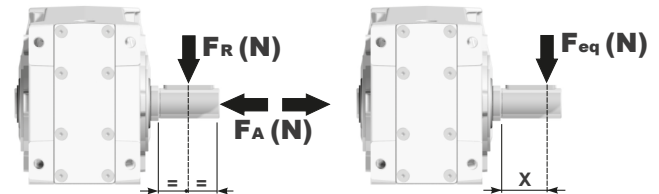
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{144.5}{X+114.5}$$

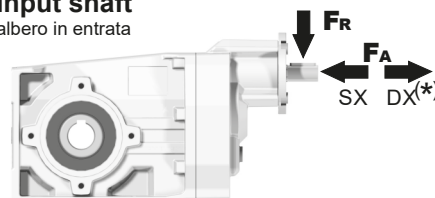


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	600	3000	75	820	4100	15	1660	8300
150	700	3500	50	960	4800			
100	800	4000	25	1350	6750			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	400	2000
900	440	2200
500	440	2200

*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

Angletech Gear
250Nm

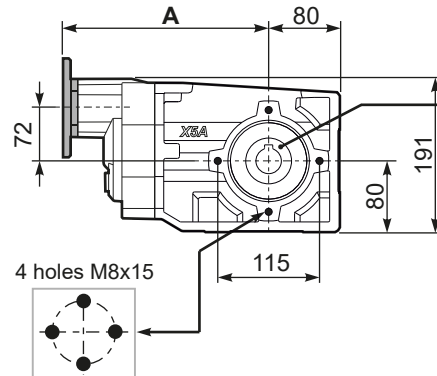
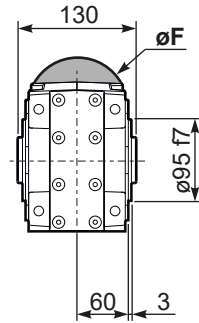
X53A

PX53AC...

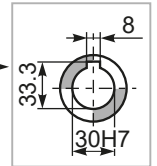
Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **12.65 kg**

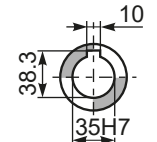
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	246
71B5	K063.4.042	160	244
80/90B5	K063.4.043	200	246
71B14	K063.4.047	105	244
80B14	K063.4.046	120	246
90B14	K063.4.041	140	246



Mounting holes position
Posizione fori di montaggio



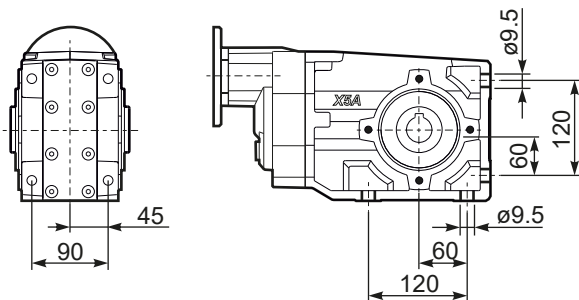
Standard
Hollow shaft



On request
A richiesta

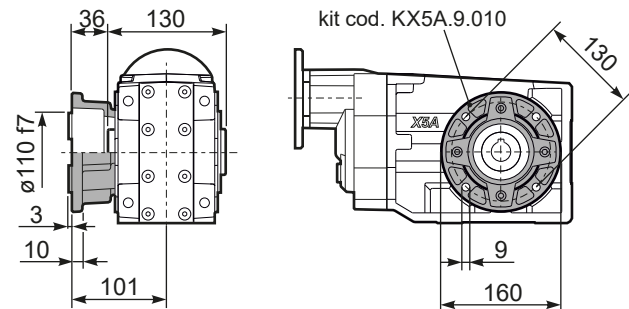
PX53A...FB..

Feet
Piedini



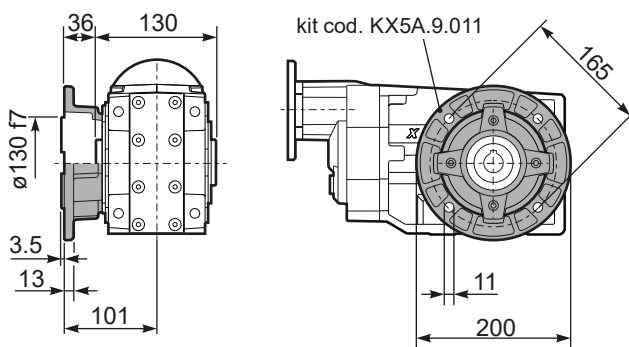
PX53A...-F2..

Output flange
Flangia uscita



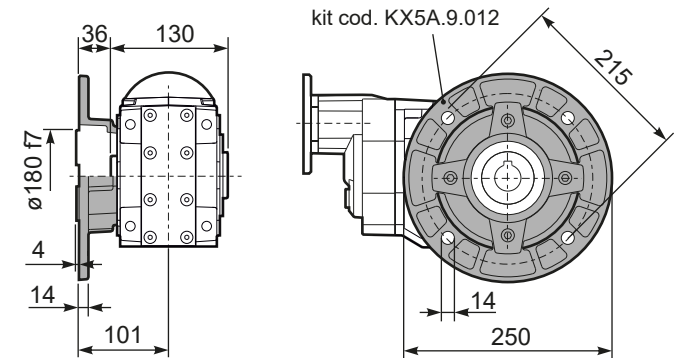
PX53A...-F3..

Output flange
Flangia uscita



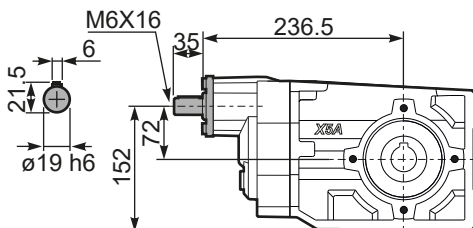
PX53A...-F4..

Output flange
Flangia uscita



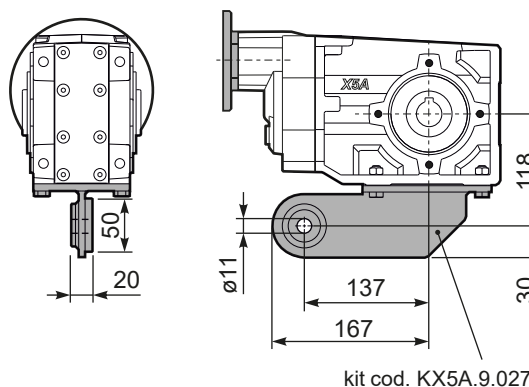
RX53A...

Input shaft
Albero in entrata



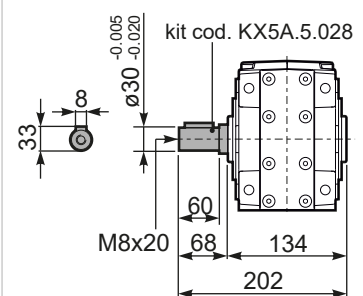
PX53A...BR..

Reaction Arm
Braccio di reazione



PX53A...

Single output shaft
Albero semplice in uscita



X62A

Angletech Gear
410Nm

Rating - Aluminum HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce The dynamic efficiency is 0.96 for all ratios 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				Output Shaft		Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100	112	132	80	90	100	112	132	
232	6.03	5.5	211	1.1	6.1	240	B										3011	01
151	9.26	4	238	1.1	4.5	270	B										308	02
123	11.36	4	291	1.2	4.7	350	B										2011	03
91	15.36	4	394	1.0	3.8	385	B										1611	04
80	17.46	4	448	0.9	3.5	400	B										208	05
70	19.97	3	386	1.1	3.1	410	B										1311	06
59	23.60	3	456	0.9	2.7	410	B										168	07
57	24.45	3	472	0.9	2.6	410	B										1111	08
45.6	30.69	2.2	436	0.9	2.0	410	B										138	09
39.6	35.35	1.5	346	1.2	1.8	410	B										811	10
37.3	37.57	1.5	368	1.1	1.7	410	B										118	11
28.8	48.68	1.1	348	1.0	1.1	365	B										611	12
25.8	54.33	1.1	389	1.1	1.2	410	B										88	13
18.7	74.81	0.75	367	1.0	0.73	360	B										68	14

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 X62A is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore X62A viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe X62A ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur X62A est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño X62A se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
B3	B6	B7	B8	V5	V6	V8	
1.25 LT	1.70 LT	0.95 LT	1.60 LT	2.45 LT	1.50 LT	Ask	
SHELL Omala S4 WE 320				ENI Telium VSF 320			

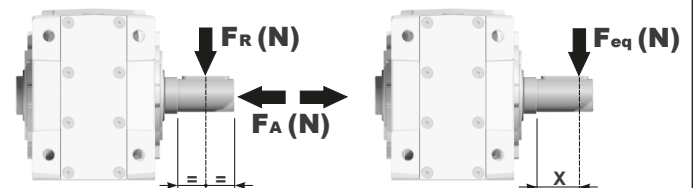
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{168}{X+138}$$



n ₂ [min ⁻¹]	FA	FR	n ₂ [min ⁻¹]	FA	FR	n ₂ [min ⁻¹]	FA	FR
250	600	3000	75	890	4450	15	1660	8300
150	700	3500	50	1140	5700			
100	780	3900	25	1330	6650			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata

n ₁ [min ⁻¹]	FA	FR
1400	450	2250
900	500	2500
500	600	3000

*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

Angletech Gear
410Nm

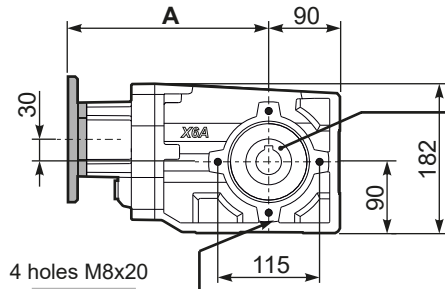
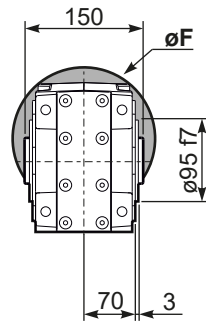
X62A

PX62AC...

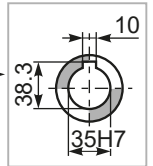
Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **15.80 kg**

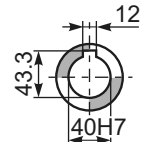
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	253
80/90B5	K023.4.042	200	255
100/112B5	K023.4.043	250	264
132B5	KC50.4.043	300	282
80B14	K085.4.046	120	255
90B14	K085.4.045	140	255
100/112B14	K085.4.047	160	264
132B14	KC50.4.041	200	282



4 holes M8x20
Mounting holes position
Posizione fori di montaggio



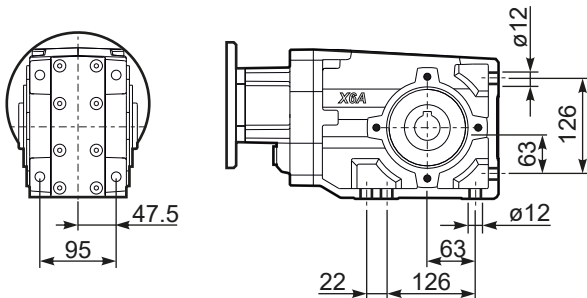
Standard
Hollow shaft



On request
A richiesta

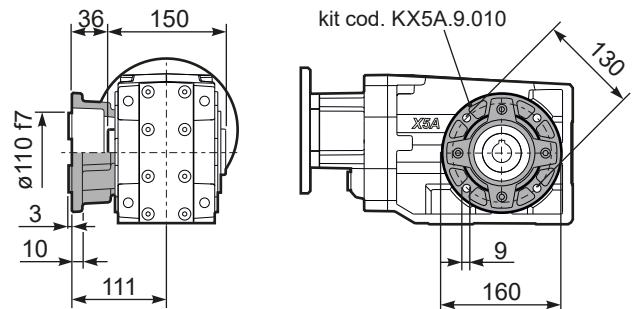
PX62A...FB..

Feet
Piedini



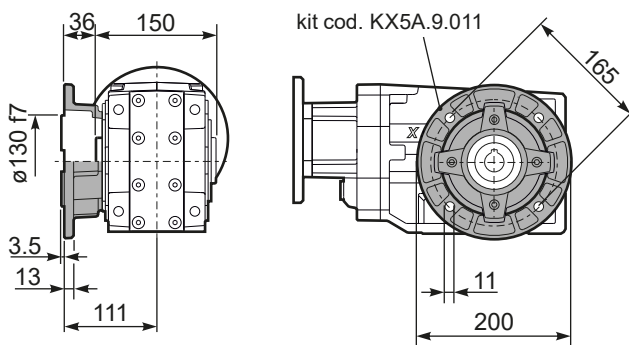
PX62A...-F2..

Output flange
Flangia uscita



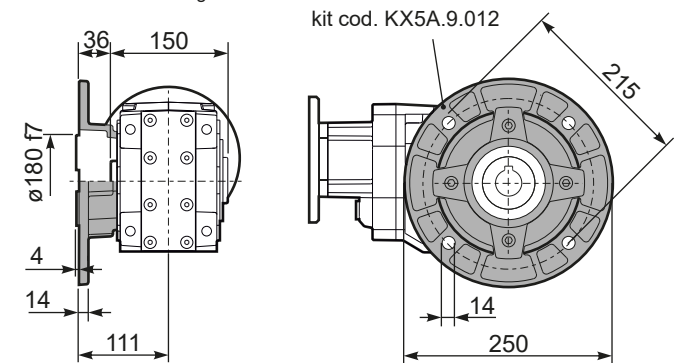
PX62A...-F3..

Output flange
Flangia uscita



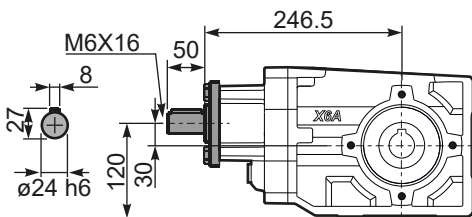
PX62A...-F4..

Output flange
Flangia uscita



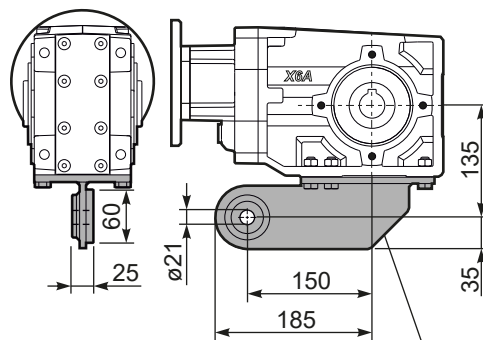
RX62A...

Input shaft
Albero in entrata



PX62A...BR..

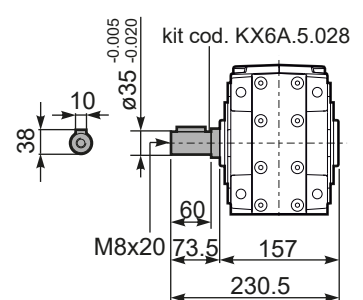
Reaction Arm
Braccio di reazione



kit cod. KX6A.9.027

PX62AA..

Single output shaft
Albero semplice in uscita



X63A Angletech Gear
410NmRating - Aluminum
HELICAL-BEVEL GEARBOXES**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.94** for all ratiosinput speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
24.7	56.76	1.1	398	1.0	1.1	410	B				C	C		191311	01
21.3	65.79	0.75	316	1.3	0.97	410	B				C	C		171311	02
18.1	77.23	0.75	371	1.1	0.83	410	B				C	C		151311	03
16.0	87.23	0.75	420	1.0	0.73	410	B				C	C		19138	04
15.2	92.18	0.75	443	0.9	0.69	410	B				C	C		131311	05
13.9	100.47	0.55	357	1.2	0.64	410	B				C	C		19811	06
12.0	116.45	0.55	413	1.0	0.55	410	B				C	C		17811	07
11.1	125.82	0.55	446	0.9	0.51	410	B				C	C		101311	08
9.9	141.66	0.37	336	1.2	0.45	410	B				C	C		13138	09
8.6	163.16	0.37	387	1.1	0.39	410	B				C	C		13811	10
7.8	178.96	0.37	424	1.0	0.36	410	B				C	C		1788	11
7.2	193.36	0.37	459	0.9	0.33	410	B				C	C		10138	12
6.5	216.84	0.25	347	1.2	0.29	410	B				C	C		71311	13
5.5	252.36	0.25	404	1.0	0.25	410	B				C	C		9138	14
4.8	290.67	0.25	465	0.9	0.22	410	B				C	C		9811	15
4.2	333.23	0.18	408	1.0	0.19	410	B				C	C		7138	16
3.6	383.82	0.18	470	0.9	0.17	410	B				C	C		7811	17
3.1	446.70	0.12	353	1.2	0.14	410	B				C	C		988	18
2.4	589.85	0.12	466	0.9	0.11	410	B				C	C		788	19

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 **X63A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X63A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X63A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X63A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X63A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
1.80 LT	1.80 LT	1.05 LT	1.70 LT	2.60 LT	1.65 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

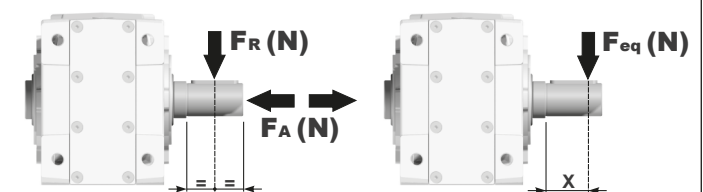
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS**Output shaft**

Albero di uscita

$$F_{eq} = F_R \cdot \frac{168}{X+138}$$

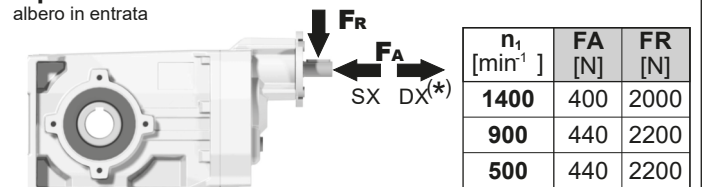


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	600	3000	75	890	4450	15	1660	8300
150	700	3500	50	1140	5700			
100	780	3900	25	1330	6650			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	400	2000
900	440	2200
500	440	2200

*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

Angletech Gear
410Nm

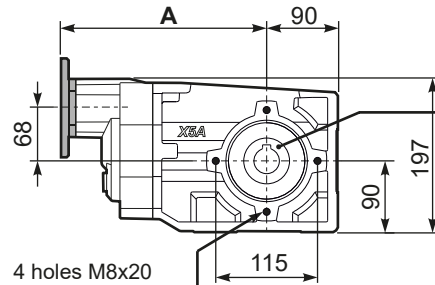
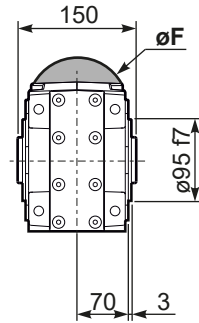
X63A

PX63AC...

Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **15.98 kg**

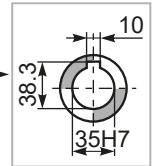
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	265
71B5	K063.4.042	160	263
80/90B5	K063.4.043	200	265
71B14	K063.4.047	105	263
80B14	K063.4.046	120	265
90B14	K063.4.041	140	265



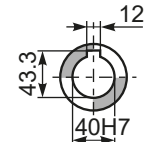
4 holes M8x20

Mounting holes position

Posizione fori di montaggio



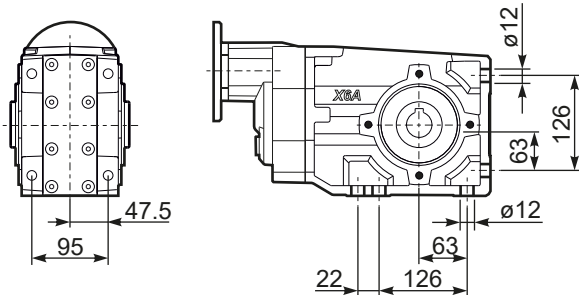
Standard
Hollow shaft



On request
A richiesta

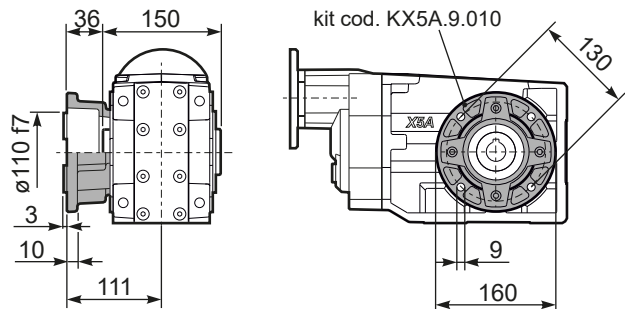
PX63A...FB..

Feet
Piedini



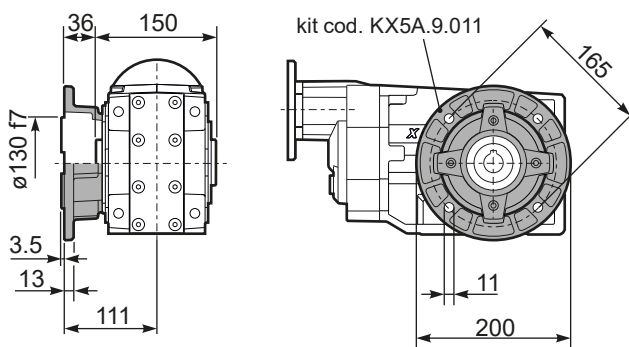
PX63A...-F2..

Output flange
Flangia uscita



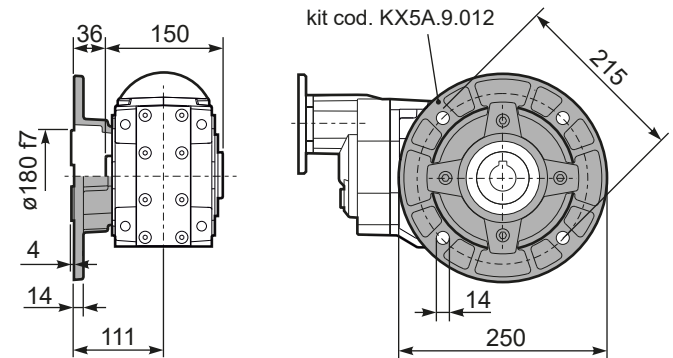
PX63A...-F3..

Output flange
Flangia uscita



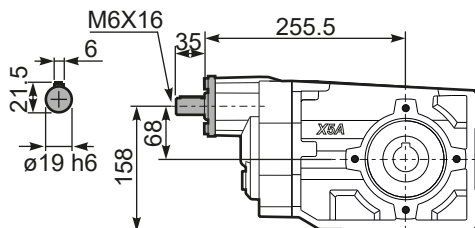
PX63A...-F4..

Output flange
Flangia uscita



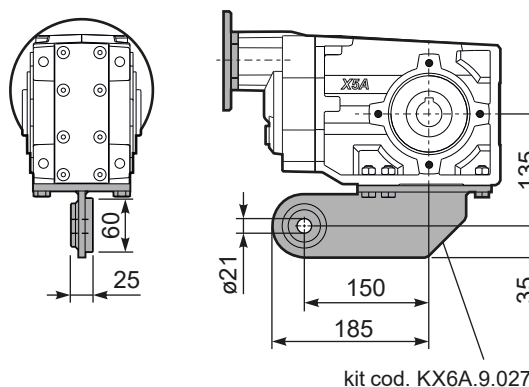
RX63A...

Input shaft
Albero in entrata



PX63A...BR..

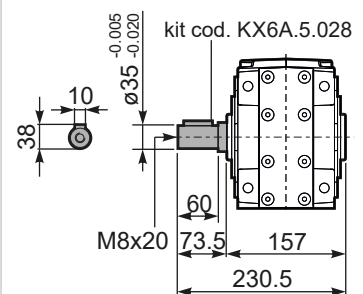
Reaction Arm
Braccio di reazione



kit cod. KX6A.9.027

PX63A...

Single output shaft
Albero semplice in uscita



X73C

Angletech - Gear
675Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Output Shaft $\varnothing$	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100	112	132	80	90	100	112		
176	7.94	7.5	369	1.0	7.5	380	B										302418	01
153	9.13	7.5	425	0.9	6.7	390	B										302416	02
131	10.66	5.5	366	1.1	6.0	410	B										302414	03
94	14.97	5.5	514	1.1	6.0	580	B										202418	04
81	17.21	5.5	591	1.0	5.4	600	B										202416	05
69	20.24	5.5	695	1.0	5.2	675	B										162418	06
60	23.27	4	585	1.2	4.5	675	B										162416	07
53	26.31	4	661	1.0	4.0	675	B										132418	08
46.3	30.25	4	760	0.9	3.5	675	B										132416	09
39.6	35.32	3	668	1.0	3.0	675	B										132414	10
37.8	37.03	3	701	1.0	2.8	675	B										112416	11
32.4	43.23	2.2	602	1.1	2.4	675	B										112414	12
30.1	46.58	2.2	649	1.0	2.3	675	B										82418	13
26.1	53.55	2.2	746	0.9	2.0	675	B										82416	14
22.4	62.52	1.5	600	1.1	1.7	675	B										82414	15
19.0	73.75	1.1	517	1.1	1.2	580	B										62416	16
16.3	86.09	1.1	604	1.1	1.2	675	B										62414	17

The dynamic efficiency is 0.94 for all ratios

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 **X73C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X73C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X73C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X73C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X73C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

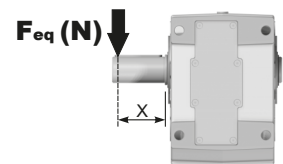
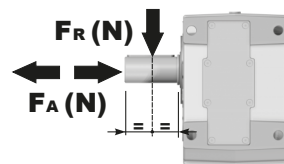
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
2.45 LT	2.55 LT	1.80 LT	1.95 LT	4.05 LT	2.55 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

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

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

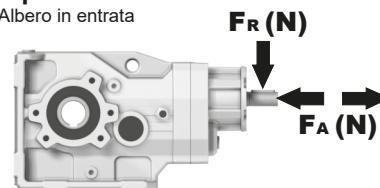
$$F_{eq} = F_R \cdot \frac{178.5}{X+143.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1360	6800	140	1480	7400	70	1720	8600
250	1400	7000	120	1520	7600	40	1840	9200
200	1440	7200	85	1560	7800	15	1920	9600

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

3D dimensions on the Web

Angletech - Gear
675Nm

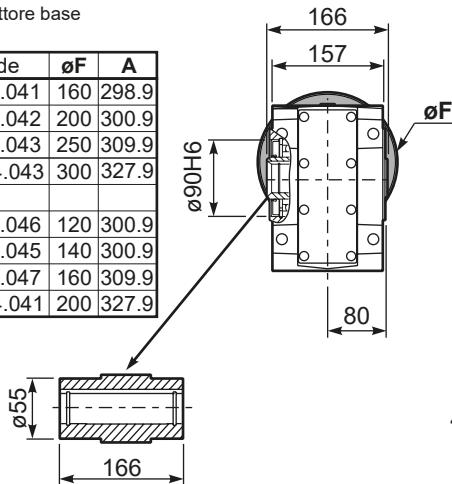
X73C

PX73CC...

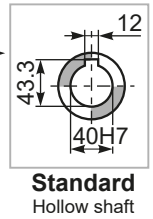
Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **41.0 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	298.9
80/90B5	K023.4.042	200	300.9
100/112B5	K023.4.043	250	309.9
132B5	KC50.4.043	300	327.9
80B14	K085.4.046	120	300.9
90B14	K085.4.045	140	300.9
100/112B14	K085.4.047	160	309.9
132B14	KC50.4.041	200	327.9



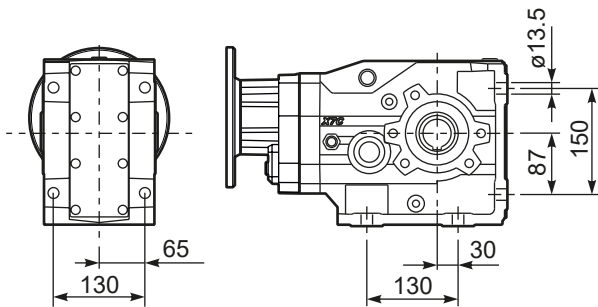
Mounting holes position
Posizione fori di montaggio



Standard
Hollow shaft

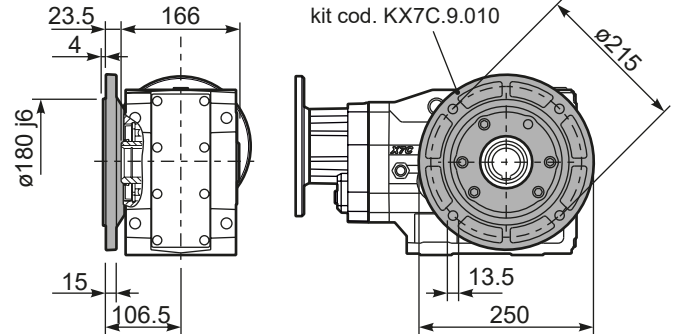
PX73C...FB...

Feet
Piedini



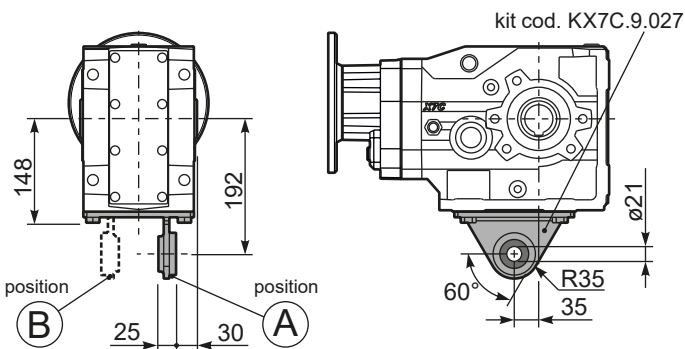
PX73C...-F4...

Output flange
Flangia uscita



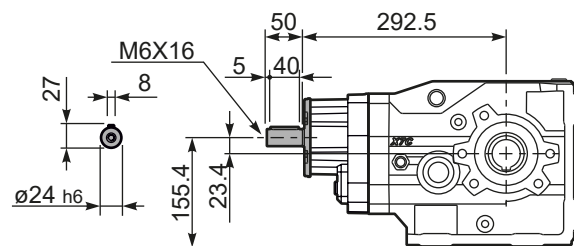
PX73C...BR...

Reaction Arm
Braccio di reazione



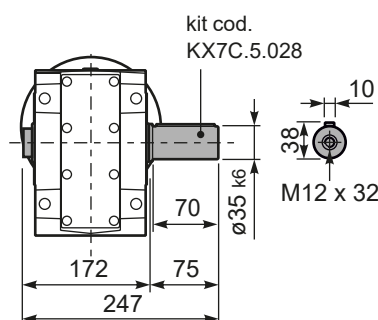
RX73C...

Input shaft
Albero in entrata



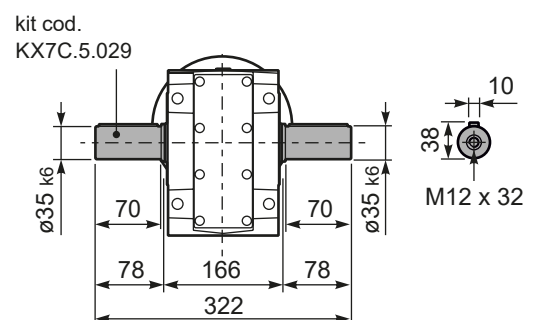
PX73CA...

Single shaft
Albero lento semplice



PX73CB...

Double shaft
Albero lento bisp.



X74C

Angletech - Gear
675Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.7	74.79	1.5	704	1.0	1.4	675	B				C	C		19132418	01
16.3	85.99	1.1	591	1.1	1.3	675	B				C	C		19132416	02
14.0	99.66	1.1	685	1.0	1.1	675	B				C	C		17132416	03
12.0	116.35	0.75	548	1.2	0.92	675	B				C	C		17132414	04
11.5	121.45	0.75	572	1.2	0.89	675	B				C	C		13132418	05
10.0	139.64	0.75	658	1.0	0.77	675	B				C	C		13132416	06
9.2	152.21	0.75	717	0.9	0.71	675	B				C	C		19082416	07
8.6	163.02	0.55	567	1.2	0.66	675	B				C	C		13132414	08
7.9	177.69	0.55	618	1.1	0.61	675	B				C	C		19082414	09
6.8	205.95	0.55	716	0.9	0.52	675	B				C	C		17082414	10
6.3	222.52	0.55	774	0.9	0.48	675	B				C	C		10132414	11
5.6	248.76	0.37	578	1.2	0.43	675	B				C	C		9132416	12
4.8	290.41	0.37	675	1.0	0.37	675	B				C	C		9132414	13
4.1	337.39	0.37	784	0.9	0.32	675	B				C	C		10082416	14
3.6	393.88	0.25	618	1.1	0.27	675	B				C	C		10082414	15
3.2	440.33	0.25	690	1.0	0.24	675	B				C	C		9082416	16
2.7	514.06	0.18	616	1.1	0.21	675	B				C	C		9082414	17
2.4	581.44	0.18	697	1.0	0.18	675	B				C	C		7082416	18
2.1	678.79	0.12	526	1.3	0.16	675	B				C	C		7082414	19

The dynamic efficiency is **0.92** for all ratios

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 **X74C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X74C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X74C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X74C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X74C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
3.55 LT	2.65 LT	1.90 LT	2.05 LT	4.25 LT	2.65 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

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

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{178.5}{X+143.5}$$

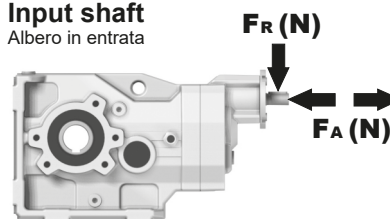


n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1360	6800	140	1480	7400	70	1720	8600
250	1400	7000	120	1520	7600	40	1840	9200
200	1440	7200	85	1560	7800	15	1920	9600

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



n_1	FA	FR
1400	240	1200
900	280	1400
500	310	1700

tab. 2

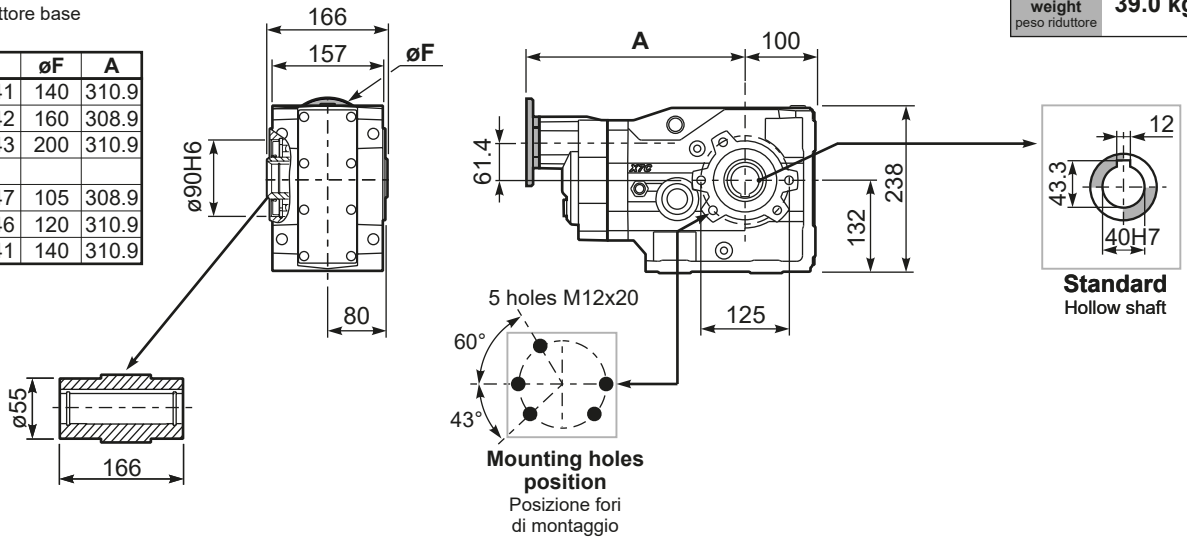
3D dimensions on the Web

Angletech - Gear 675Nm **X74C**

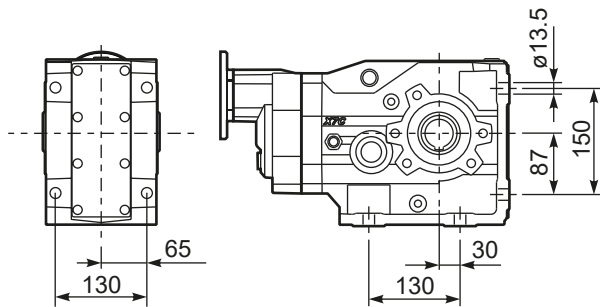
PX74CC... Basic Gearbox
Riduttore base

Gearbox
weight
peso riduttore **39.0 kg**

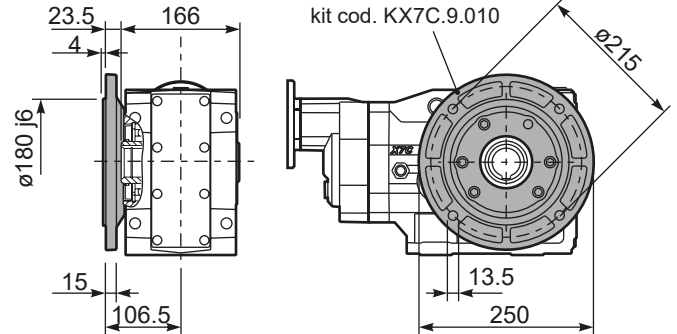
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	310.9
71B5	K063.4.042	160	308.9
80/90B5	K063.4.043	200	310.9
71B14	K063.4.047	105	308.9
80B14	K063.4.046	120	310.9
90B14	K063.4.041	140	310.9



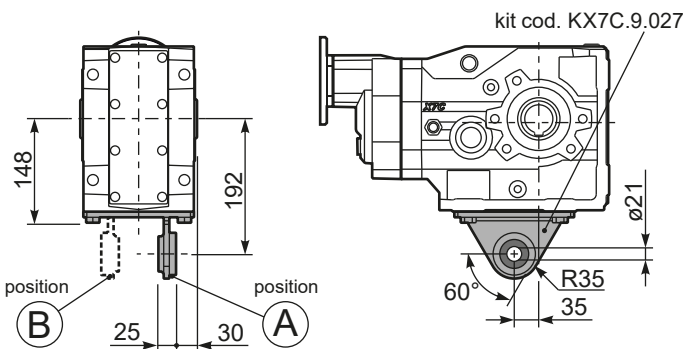
PX74C...FB.. Feet
Piedini



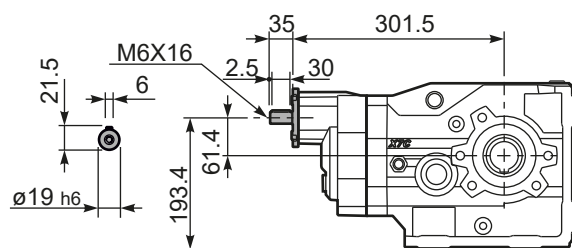
PX74C...-F4.. Output flange
Flangia uscita



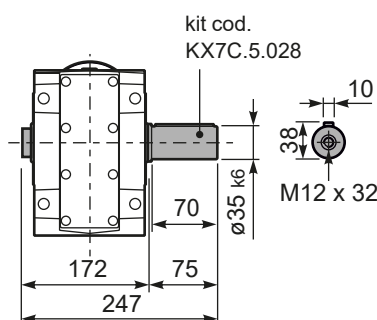
PX74C...BR.. Reaction Arm
Braccio di reazione



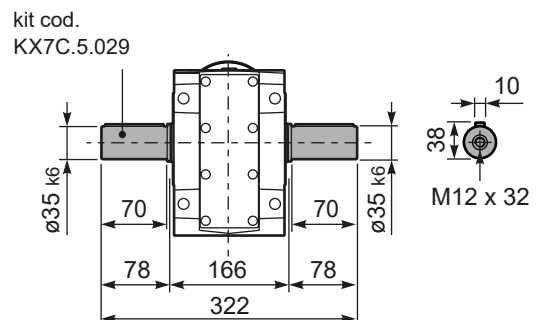
RX74C... Input shaft
Albero in entrata



PX74CA... Single shaft
Albero lento semplice

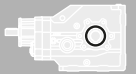


PX74CB... Double shaft
Albero lento bisp.



X83C Angletech Gear 1000Nm

Rating - Cast Iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	 Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
145	9.69	9	560	1.3	12.2	755	B								302418	standard ø40	01	
126	11.09	9	641	1.1	9.6	680	B								302416		02	
108	12.90	9	746	1.1	9.6	790	B								302414		03	
77	18.26	7.5	849	1.1	8.0	935	B								202418		04	
67	20.91	7.5	972	1.0	7.5	1000	B								202416		05	
58	24.32	5.5	835	1.2	6.4	1000	B								202414		06	
49.5	28.27	5.5	971	1.0	5.5	1000	B								162416		07	
42.6	32.88	4	826	1.2	4.7	1000	B								162414		08	
38.1	36.76	4	924	1.1	4.2	1000	B								132416		09	
32.7	42.76	3	809	1.2	3.6	1000	B								132414		10	
31.1	45.00	3	851	1.2	3.5	1000	B								112416		11	
26.8	52.33	3	990	1.0	3.0	1000	B								112414		12	
24.6	56.82	2.2	791	1.1	2.3	850	B								82418		13	
21.5	65.07	2.2	906	1.1	2.3	975	B								82416		14	
18.5	75.68	2.2	1054	0.9	2.1	1000	B								82414		15	
15.6	89.61	1.1	628	1.1	1.2	710	B								62416		16	
13.4	104.22	1.1	731	1.1	1.2	820	B								62414		17	

The dynamic efficiency is **0.94** for all ratios

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 **X83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X83C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X83C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

E El reductor tamaño **X83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
2.80 LT	3.10 LT	2.00 LT	2.50 LT	4.95 LT	2.80 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

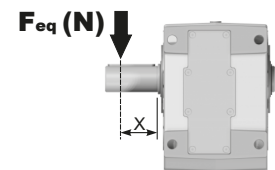
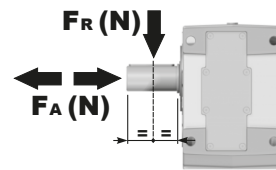
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{196.5}{X + 156.5}$$



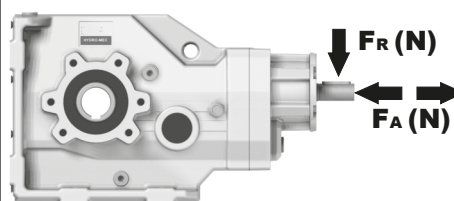
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1700	8500	140	1860	9300	70	2160	10800
250	1760	8800	120	1900	9500	40	2300	11500
200	1800	9000	85	1960	9800	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

3D dimensions on the Web

Angletech Gear
1000Nm

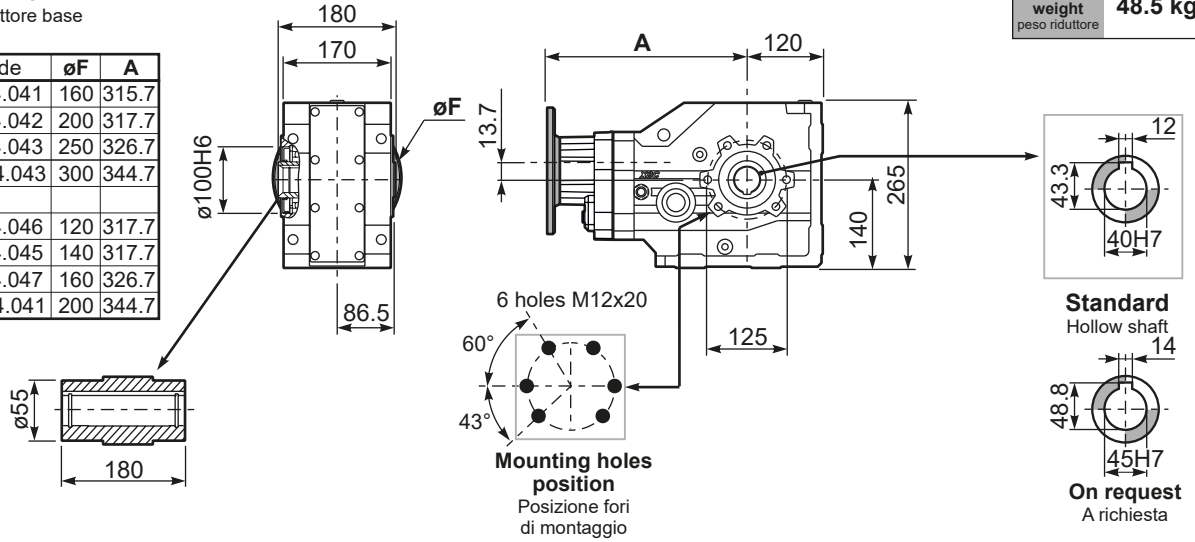
X83C

PX83CC...

Basic gearbox
Riduttore base

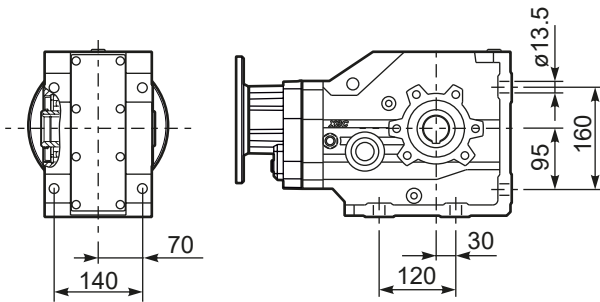
Gearbox weight
peso riduttore **48.5 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	315.7
80/90B5	K023.4.042	200	317.7
100/112B5	K023.4.043	250	326.7
132B5	KC50.4.043	300	344.7
80B14	K085.4.046	120	317.7
90B14	K085.4.045	140	317.7
100/112B14	K085.4.047	160	326.7
132B14	KC50.4.041	200	344.7



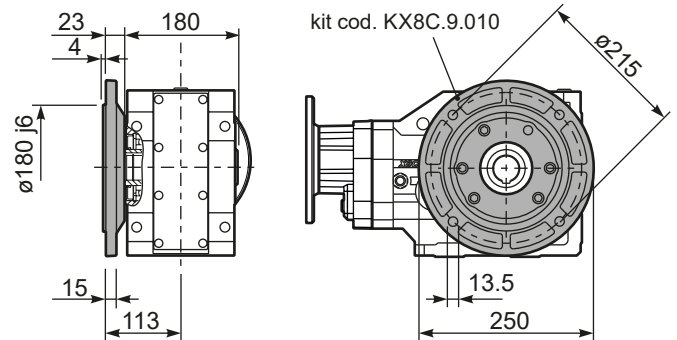
PX83C...FB..

Feet
Piedini



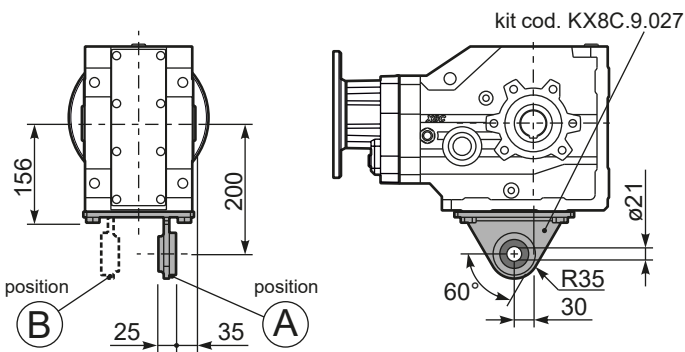
PX83C...-F4..

Output flange
Flangia uscita



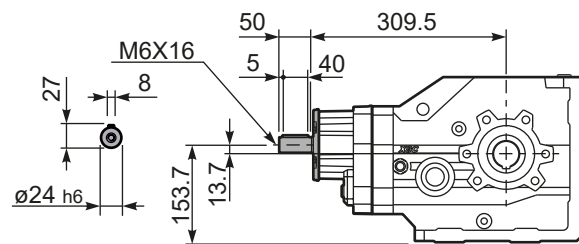
PX83C...BR..

Reaction Arm
Braccio di reazione



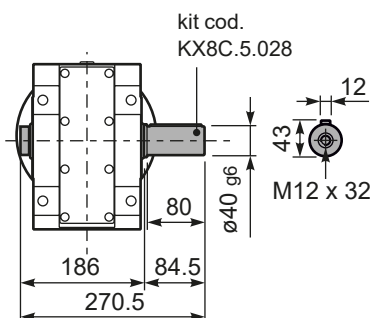
RX83C...

Input shaft
Albero in entrata



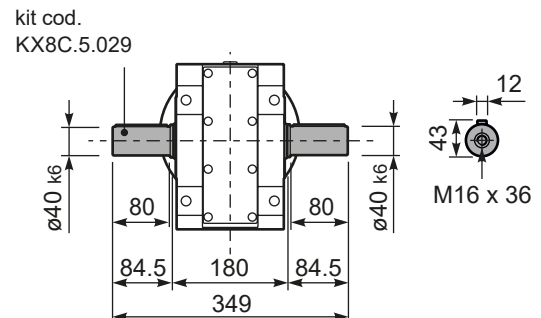
PX83CA...

Single shaft
Albero lento semplice



PX83CB...

Double shaft
Albero lento bisp.



X84C

Angletech Gear
1000Nm

Rating - Cast Iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
15.3	91.23	1.5	858	1.2	1.7	1000	B				C	C		19132418	01
13.4	104.48	1.5	983	1.0	1.5	1000	B				C	C		19132416	02
11.6	121.10	1.5	1139	0.9	1.3	1000	B				C	C		17132416	03
9.9	140.84	1.1	968	1.0	1.1	1000	B				C	C		17132414	04
8.5	165.32	1.1	1136	0.9	0.96	1000	B				C	C		15132414	05
7.6	184.94	0.75	872	1.1	0.86	1000	B				C	C		19082416	06
7.1	197.34	0.75	930	1.1	0.81	1000	B				C	C		13132414	07
6.5	215.10	0.75	1014	1.0	0.74	1000	B				C	C		19082414	08
6.0	231.60	0.55	805	1.2	0.69	1000	B				C	C		10132416	09
5.6	249.31	0.55	867	1.2	0.64	1000	B				C	C		17082414	10
5.2	269.37	0.55	937	1.1	0.59	1000	B				C	C		10132414	11
4.8	292.64	0.55	1018	1.0	0.54	1000	B				C	C		15082414	12
4.6	302.26	0.55	1051	1.0	0.53	1000	B				C	C		9132416	13
4.0	349.30	0.37	812	1.2	0.46	1000	B				C	C		13082414	14
3.5	399.12	0.37	928	1.1	0.40	1000	B				C	C		7132416	15
2.9	476.80	0.37	1108	0.9	0.33	1000	B				C	C		10082414	16
2.2	622.28	0.25	976	1.0	0.26	1000	B				C	C		9082414	17
1.7	821.70	0.18	985	1.0	0.19	1000	B				C	C		7082414	18

The dynamic efficiency is **0.92** for all ratios

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 **X84C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X84C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X84C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X84C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X84C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

						
B3	B6	B7	B8	V5	V6	V8
4.25 LT	3.20 LT	2.10 LT	2.60 LT	5.20 LT	2.90 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website

tab. 1

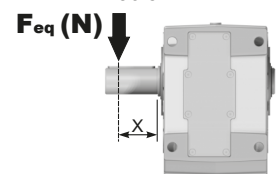
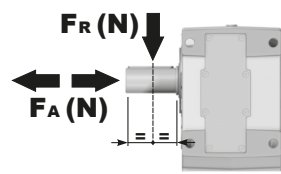
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{196.5}{X + 156.5}$$



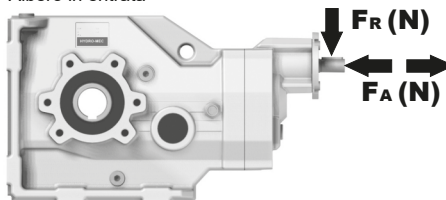
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1700	8500	140	1860	9300	70	2160	10800
250	1760	8800	120	1900	9500	40	2300	11500
200	1800	9000	85	1960	9800	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

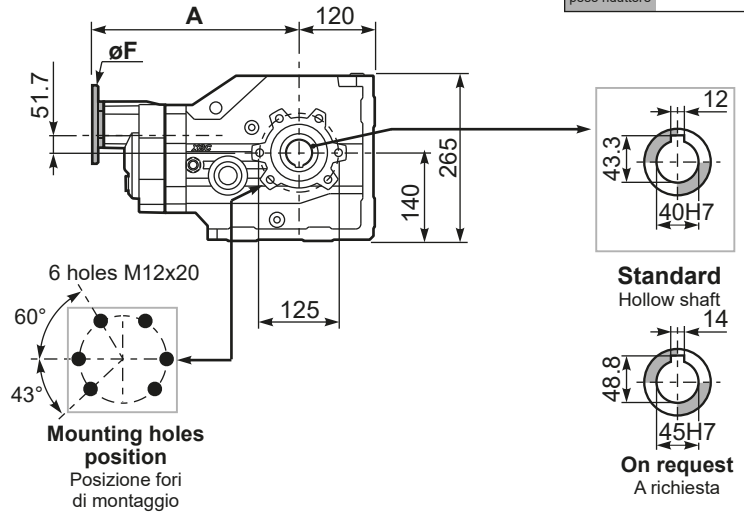
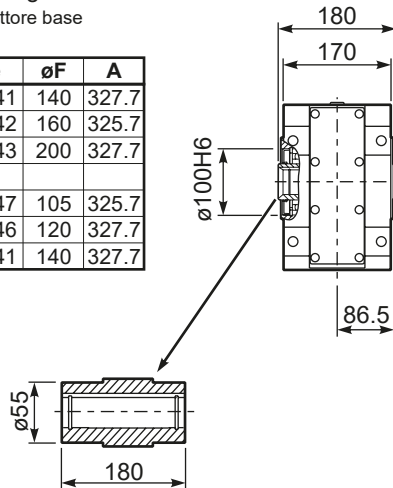
3D dimensions on the Web

Angletech gear 1000Nm **X84C**

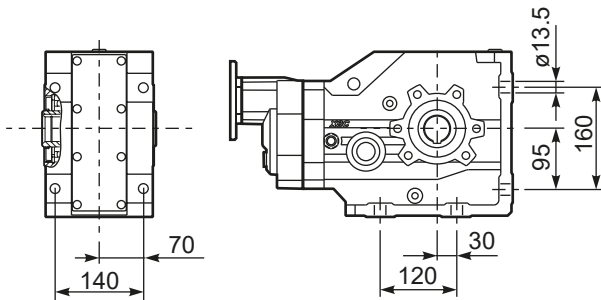
PX84CC... Basic gearbox
Riduttore base

Gearbox weight
peso riduttore **46.5 kg**

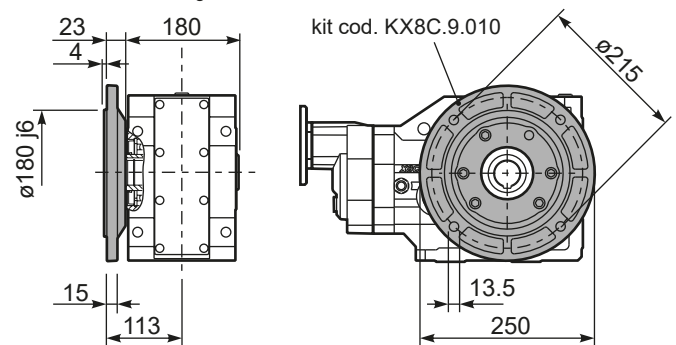
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	327.7
71B5	K063.4.042	160	325.7
80/90B5	K063.4.043	200	327.7
71B14	K063.4.047	105	325.7
80B14	K063.4.046	120	327.7
90B14	K063.4.041	140	327.7



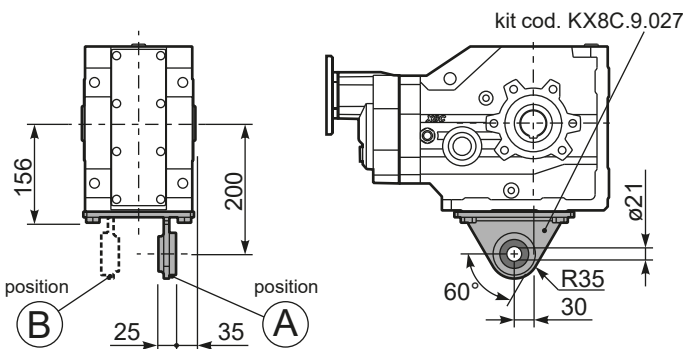
PX84C...FB.. Feet
Piedini



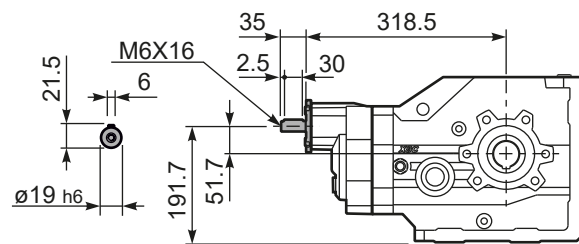
PX84C...-F4.. Output flange
Flangia uscita



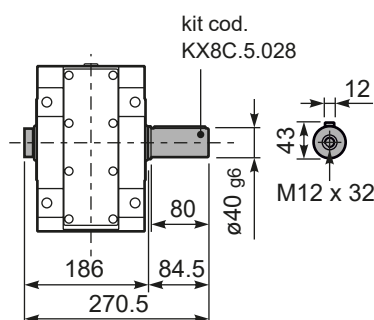
PX84C...BR.. Reaction Arm
Braccio di reazione



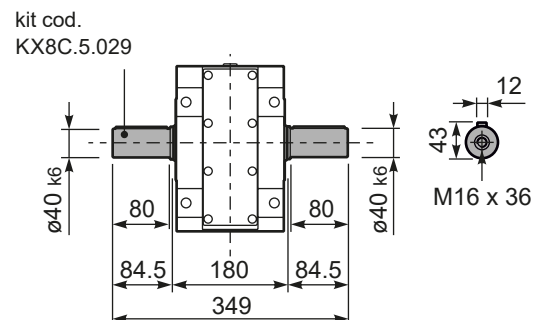
RX84C... Input shaft
Albero in entrata



PX84CA... Single shaft
Albero lento semplice



PX84CB... Double shaft
Albero lento bisp.



X93C

Angletech - Gear
1600Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges				B14 motor flanges		Output Shaft 	Ratios code
							-F	-G	-H	-I	-U	-V		
							100 112	132	160	180	100 112	132		
236	5.94	22	806	1.0	21.0	800							302915	01
196	7.13	18.5	812	1.0	17.9	820							302913	02
163	8.58	18.5	977	1.0	17.3	950							302911	03
125	11.20	15	1033	1.0	13.9	1000							202915	04
104	13.43	15	1239	1.1	15.7	1350							202913	05
92	15.15	15	1397	1.0	14.4	1400							162915	06
87	16.17	15	1492	1.0	14.0	1450							202911	07
77	18.16	15	1675	0.9	13.3	1550							162913	08
71	19.70	11	1335	1.2	12.3	1550							132915	09
64	21.87	11	1482	1.1	11.4	1600							162911	10
59	23.62	11	1600	1.0	10.6	1600							132913	11
48.4	28.91	9	1671	1.0	8.6	1600							112913	12
40.2	34.81	7.5	1618	1.0	7.2	1600							112911	13
33.5	41.81	5.5	1436	1.1	6.0	1600							82913	14
27.8	50.34	5.5	1729	0.9	5.0	1600							82911	15

The dynamic efficiency is **0.94** for all ratios

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 **X93C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X93C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X93C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X93C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X93C** 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.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
4.20 LT	3.60 LT	4.40 LT	5.10 LT	6.90 LT	5.00 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website

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

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

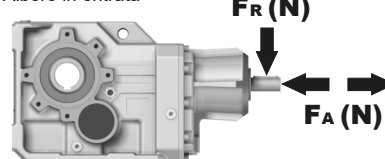
$$F_{eq} = F_R \cdot \frac{218}{X+168}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1800	9000	140	2700	13500	70	3020	15100
250	2400	12000	120	2800	14000	40	3200	16000
200	2600	13000	85	2900	14500	15	3500	17500

Input shaft

Albero in entrata



n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

3D dimensions on the Web

Angletech - Gear
1600Nm

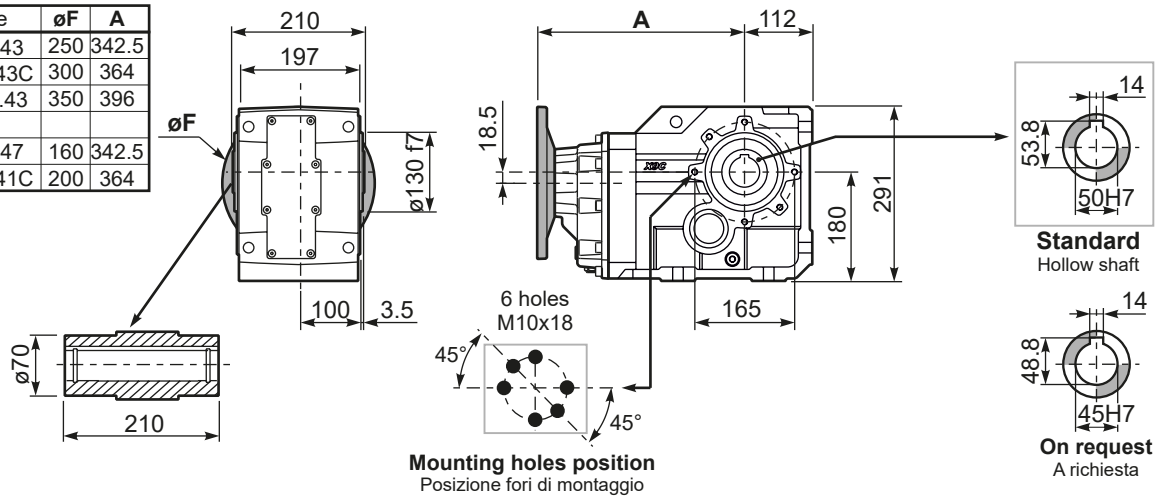
X93C

PX93CC...

Basic Gearbox
Riduttore base

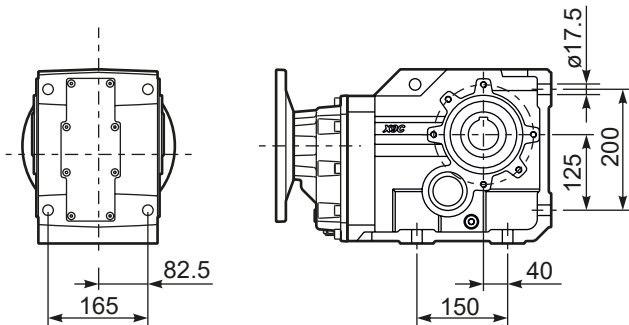
Gearbox weight
peso riduttore **75.0 kg**

M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	342.5
132B5	KC51.4.043C	300	364
160/180B5	KC86.4.0.43	350	396
100/112B14	K085.4.047	160	342.5
132B14	KC51.4.041C	200	364



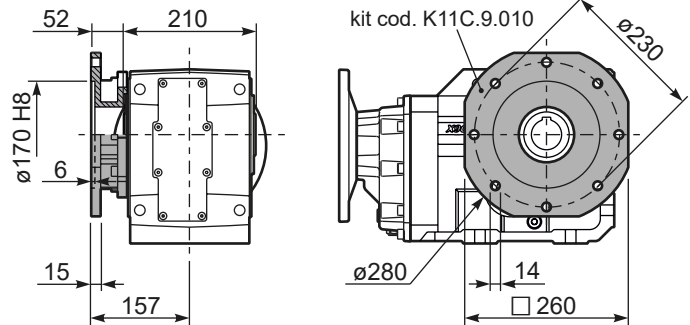
PX93C...FB..

Feet
Piedini



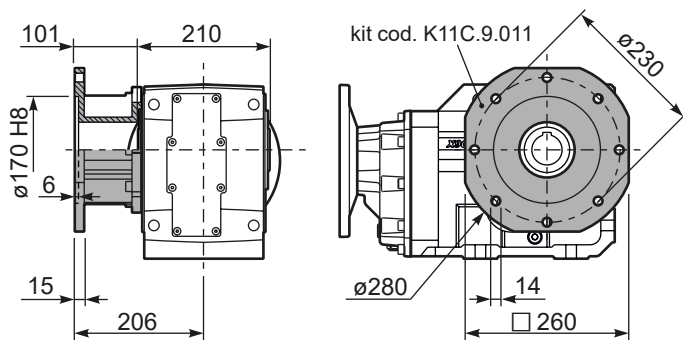
PX93C...-FC..

Output flange
Flangia uscita



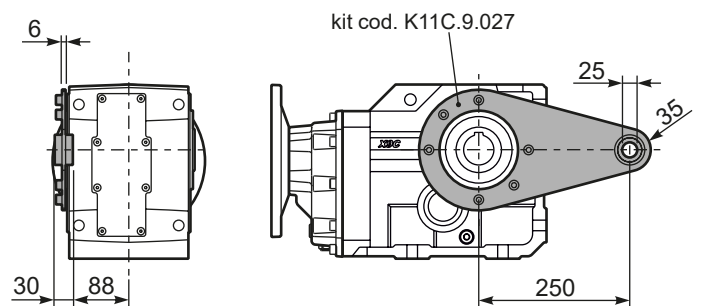
PX93C...-FL..

Output flange
Flangia uscita



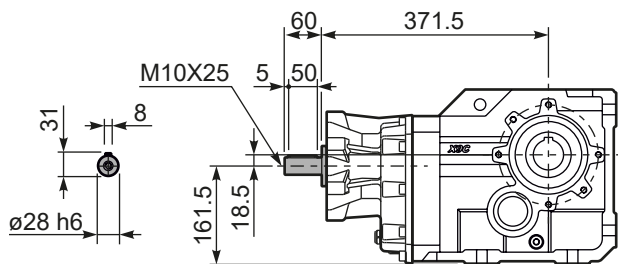
PX93C...BR..

Reaction Arm
Braccio di reazione



RX93C...

Input shaft
Albero in entrata



PX93CA...

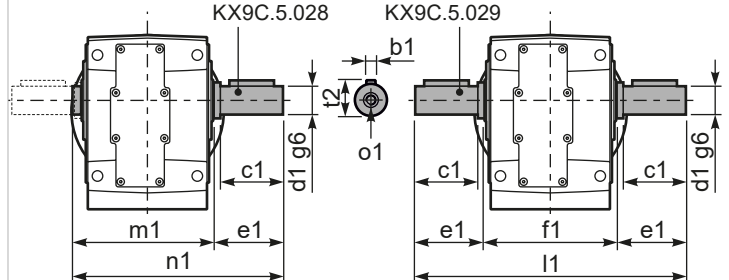
Single shaft
Albero lento semplice

kit cod.
KX9C.5.028

PX93CB...

Double shaft
Albero lento bisp.

kit cod.
KX9C.5.029



	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
Standard	14	100	50	105	210	420	218	323	53.5	M16
-	-	-	-	-	-	-	-	-	-	-

X94C

Angletech - Gear 1650Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	 Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
45.6	30.70	7.5	1399	1.1	8.3	1600	B								30132913	standard ø50 ø45 On request	01	
37.9	36.97	7.5	1685	0.9	6.9	1600	B								30132911		02	
29.0	48.26	5.5	1625	1.0	5.3	1600	B								20132915		03	
24.2	57.86	4	1425	1.1	4.4	1600	B								20132913		04	
21.5	65.24	4	1607	1.0	3.9	1600	B								16132915		05	
20.1	69.68	4	1716	1.0	3.8	1650	B								20132911		06	
17.9	78.23	3	1450	1.1	3.4	1650	B								16132913		07	
16.5	84.85	3	1573	1.0	3.0	1600	B								13132915		08	
14.9	94.20	3	1747	0.9	2.8	1650	B								16132911		09	
13.8	101.74	3	1886	0.9	2.6	1650	B								13132913		10	
11.4	122.51	2.2	1672	1.0	2.1	1650	B								13132911		11	
9.3	149.95	1.5	1411	1.2	1.8	1650	B								11132911		12	
7.8	180.09	1.5	1694	1.0	1.5	1650	B								8132913		13	
6.8	206.81	1.1	1421	1.1	1.2	1600	B								6132915		14	
6.5	216.85	1.1	1490	1.1	1.2	1650	B								8132911		15	
5.6	247.99	1.1	1704	1.0	1.1	1650	B								6132913		16	
4.7	298.61	0.75	1407	1.2	0.88	1650	B								6132911		17	

The dynamic efficiency is **0.92** for all ratios

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 **X94C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X94C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X94C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X94C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X94C** 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.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
4.50 LT	3.80 LT	4.50 LT	5.30 LT	7.60 LT	5.30 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

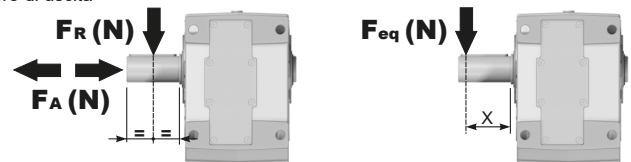
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

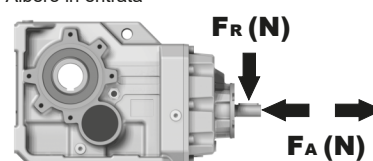
Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{218}{X+168}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1800	9000	140	2700	13500	70	3020	15100
250	2400	12000	120	2800	14000	40	3200	16000
200	2600	13000	85	2900	14500	15	3500	17500

Input shaft
Albero in entrata



n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

68.5 kg

On request
A richiesta

9-34

X103

Angletech - Gear 3000Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code
							-G	-H	-I	-L	-	-	-	-		
							132	160	180	200	-	-	-	-		
219	6.39	30	1180	1.1	31.7	1300									392914	01
200	7.00	30	1292	1.1	31.2	1400									392913	02
164	8.55	30	1578	1.0	27.4	1500									392911	03
140	10.01	22	1357	1.2	24.9	1600									302914	04
128	10.97	22	1486	1.1	24.2	1700									302913	05
105	13.39	22	1815	1.2	24.5	2100									302911	06
89	15.71	22	2130	1.0	21.8	2200									222914	07
81	17.21	22	2333	1.0	20.8	2300									222913	08
67	21.02	18.5	2394	1.0	17.8	2400									222911	09
59	23.73	18.5	2703	1.0	17.1	2600									162914	10
54	25.99	18.5	2960	0.9	16.8	2800									162913	11
50	27.93	15	2576	1.1	16.2	2900									142914	12
45.8	30.59	15	2822	1.0	14.8	2900									142913	13
44.1	31.74	15	2928	1.0	14.2	2900									162911	14
37.5	37.36	11	2532	1.1	12.1	2900									142911	15
33.8	41.37	11	2804	1.0	10.9	2900									102914	16
30.9	45.31	9	2618	1.1	10.0	2900									102913	17
25.3	55.33	7.5	2573	1.2	8.5	3000									102911	18

The dynamic efficiency is **0.94** for all ratios

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 **X103** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X103** è fornito privo di lubrificazione con tappi di sfato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X103** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X103** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X103** 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

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Fax: +91-484994642

تهران، کیلومتر ۲۱ بزرگراه لشگری (جاده مخصوص کرج)

روبروی پالایشگاه نفت پارس، پلاک ۱۲

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
11.50 LT	5.50 LT	10.50 LT	7.50 LT	13.50 LT	9.50 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

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

RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{253}{X+193}$					
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R
300	2000	10000	140	2800	14000	70	3500	17500
250	2500	12500	120	3000	15000	40	4200	21000
200	2700	13500	85	3200	16000	15	5400	27000
Input shaft Albero in entrata								
n_1	F_A	F_R						
1400	1120	5600						
900	1220	6100						
500	1300	6500						

tab. 2

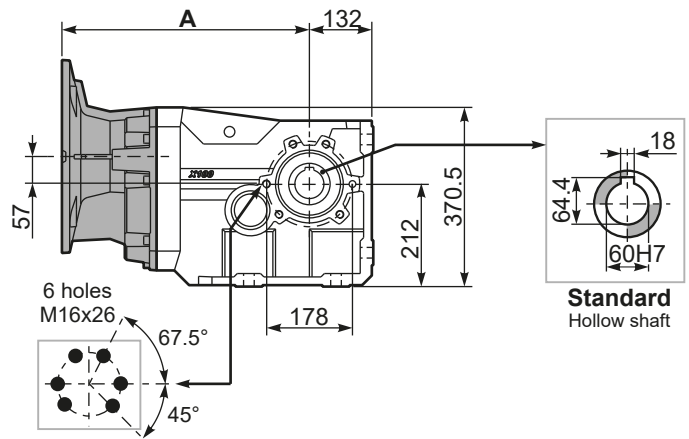
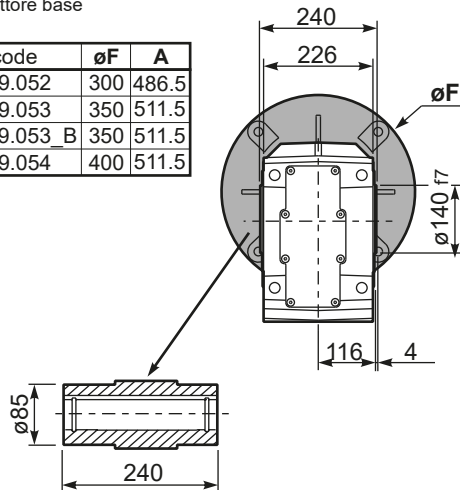
3D dimensions on the Web

Angletech - Gear 3000Nm **X103**

PX103C... Basic Gearbox
Riduttore base

Gearbox
weight
peso riduttore **125 kg**

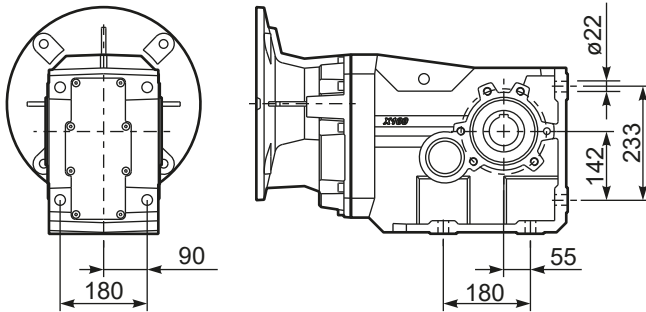
M. flanges	Kit code	øF	A
132B5	KC110.9.052	300	486.5
160B5	KC110.9.053	350	511.5
180B5	KC110.9.053_B	350	511.5
200B5	KC110.9.054	400	511.5



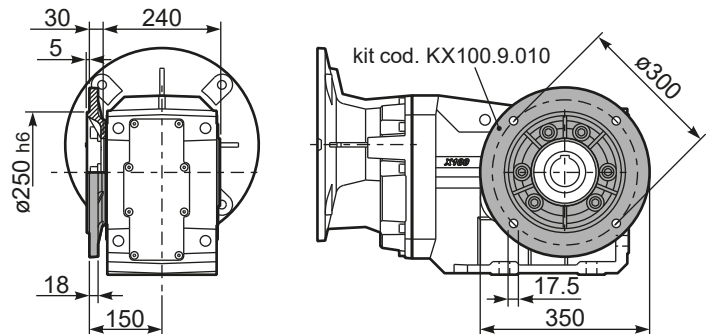
Mounting holes position
Posizione fori di montaggio

Standard
Hollow shaft

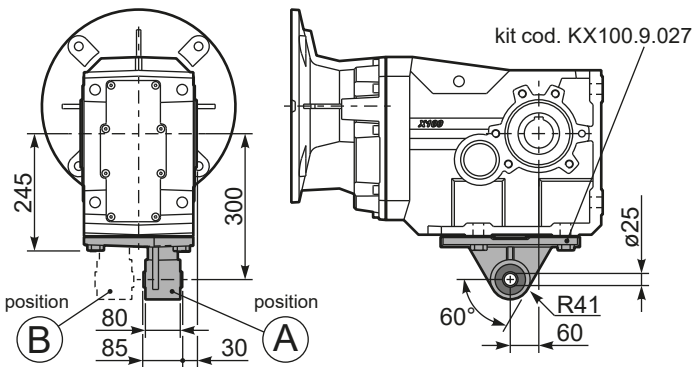
PX103...FB.. Feet
Piedini



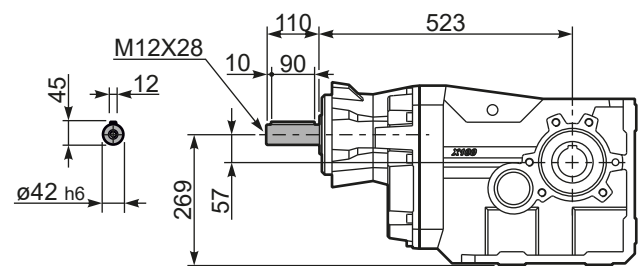
PX103...-F6.. Output flange
Flangia uscita



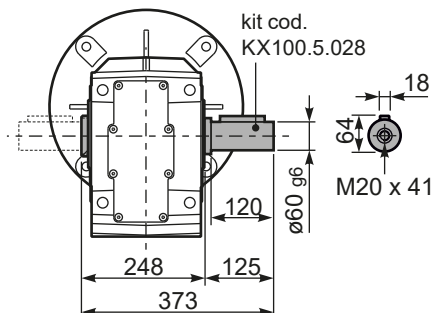
PX103...BR... Reaction Arm
Braccio di reazione



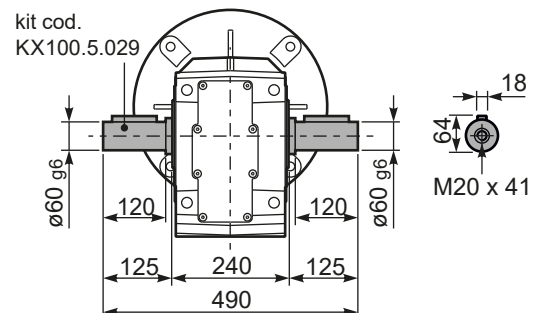
RX103... Input shaft
Albero in entrata



PX103A... Single shaft
Albero lento semplice



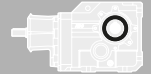
PX103B... Double shaft
Albero lento bisp.



X104

Angletech - Gear 3000Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-U	-V			
28.8	48.57	9	2750	1.1	9.5	2900							01
20.5	68.43	7.5	3118	1.0	7.0	3000							02
18.7	74.95	5.5	2523	1.2	6.4	3000							03
15.1	92.53	5.5	3115	1.0	5.2	3000							04
13.8	101.33	4	2496	1.2	4.7	3000							05
11.6	120.33	4	2963	1.0	4.0	3000							06
11.3	123.75	4	3048	1.0	3.9	3000							07
10.6	131.78	4	3245	0.9	3.6	3000							08
9.5	147.28	3	2731	1.1	3.2	3000							09
8.7	161.30	3	2990	1.0	3.0	3000							10
7.1	196.98	2.2	2689	1.1	2.4	3000							11
6.6	212.99	2.2	2907	1.0	2.2	3000							12
6.0	233.26	2.2	3184	0.9	2.0	3000							13
4.9	284.86	2.2	3889	0.8	1.7	3000							14

The dynamic efficiency is **0.92** for all ratios

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 **X104** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X104** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X104** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X104** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X104** 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.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
12.00 LT	6.00 LT	11.50 LT	8.00 LT	14.50 LT	11.00 LT	Ask
SHELL Omala S2 GX 460			ENI Blasla 460			

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

RADIAL AND AXIAL LOADS									
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{253}{X+193}$						
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR	
300	2000	10000	140	2800	14000	70	3500	17500	
250	2500	12500	120	3000	15000	40	4200	21000	
200	2700	13500	85	3200	16000	15	5400	27000	
Input shaft Albero in entrata									
n_1	FA	FR							
1400	700	3500							
900	840	4200							
500	900	4500							

tab. 2

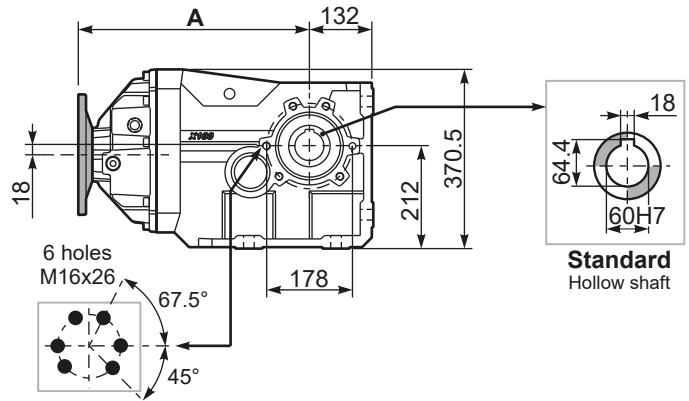
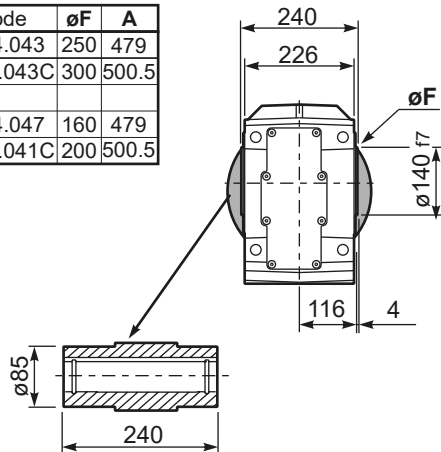
3D dimensions on the Web

Angletech - Gear 3000Nm **X104**

PX104C... Basic Gearbox
Riduttore base

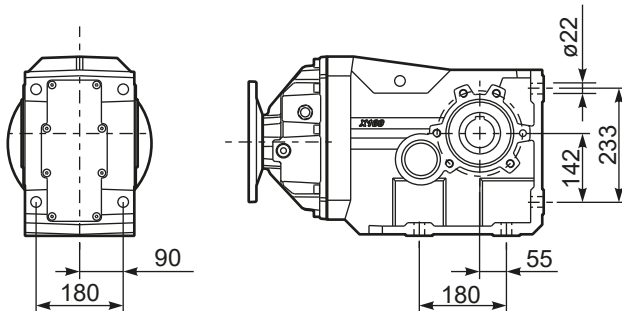
Gearbox weight
peso riduttore **118 kg**

M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	479
132B5	KC51.4.043C	300	500.5
100/112B14	K085.4.047	160	479
132B14	KC51.4.041C	200	500.5

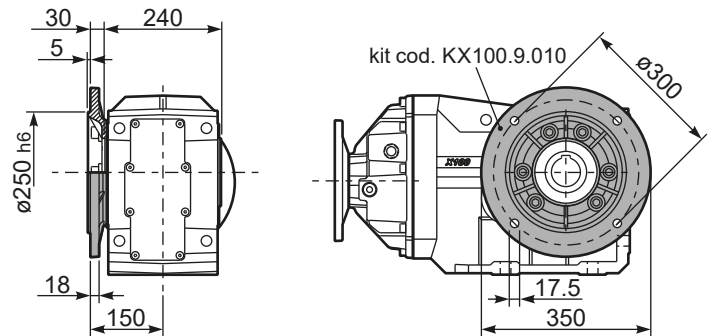


Mounting holes position
Posizione fori di montaggio

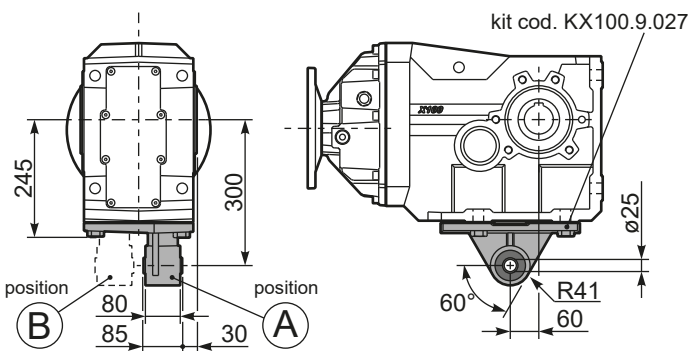
PX104...FB.. Feet
Piedini



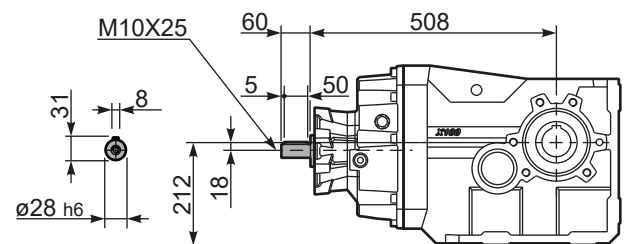
PX104...-F6.. Output flange
Flangia uscita



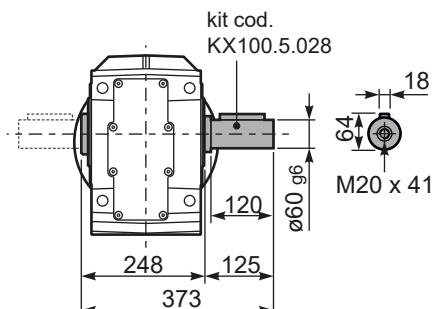
PX104...BR.. Reaction Arm
Braccio di reazione



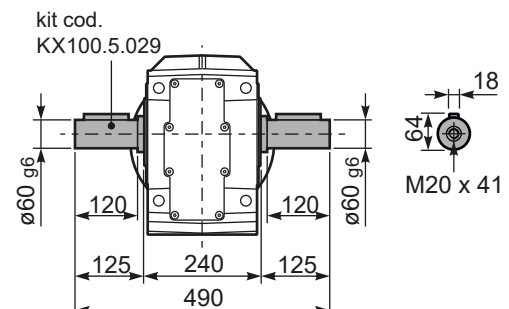
RX104... Input shaft
Albero in entrata



PX104A... Single shaft
Albero lento semplice



PX104B... Double shaft
Albero lento bisp.



X113

Angletech - Gear
4500Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges					B14 motor flanges			Output Shaft $\varnothing$	Ratios code
							-G	-H	-I	-L	CA	-	-	-		
							132	160	180	200	225	-	-	-		
219	6.39	45	1757	1.4	61.0	2500									392914	01
200	7.00	45	1925	1.4	59.0	2650									392913	02
164	8.55	45	2350	1.2	51.1	2800									392911	03
140	10.01	45	2752	1.2	49.8	3200									302914	04
128	10.97	45	3014	1.1	45.5	3200									302913	05
105	13.39	37	3025	1.1	39.6	3400									302911	06
89	15.71	37	3550	1.0	34.7	3500									222914	07
81	17.21	37	3888	1.0	33.5	3700									222913	08
67	21.02	30	3877	1.0	29.7	4000									222911	09
59	23.73	30	4378	0.9	26.9	4100									162914	10
54	25.99	22	3523	1.2	25.8	4300									162913	11
50	27.93	22	3786	1.1	24.0	4300									142914	12
45.8	30.59	22	4146	1.1	22.9	4500									142913	13
44.1	31.74	22	4302	1.0	22.1	4500									162911	14
37.5	37.36	18.5	4255	1.1	18.8	4500									142911	15
33.8	41.37	18.5	4712	1.0	17.0	4500									102914	16
30.9	45.31	15	4179	1.1	15.5	4500									102913	17
25.3	55.33	11	3750	1.2	12.7	4500									102911	18

The dynamic efficiency is **0.94** for all ratios

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 **X113** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X113** è fornito privo di lubrificazione con tappi di sfato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X113** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X113** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X113** 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

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تهران، کیلومتر ۲۱ بزرگراه لشگری (جاده مخصوص کرج)

روبروی پالایشگاه نفت پارس، پلاک ۱۲

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
13.50 LT	8.00 LT	15.50 LT	14.50 LT	22.00 LT	13.00 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

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

RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{325.5}{X+255.5}$					
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	2100	10500	140	3100	15500	70	4200	21000
250	2600	13000	120	3240	16200	40	5600	28000
200	3000	15000	85	3600	18000	15	8000	40000
Input shaft Albero in entrata								
n_1	FA	FR	n_1	FA	FR	n_1	FA	FR
1400	1120	5600	900	1220	6100	500	1300	6500

tab. 2

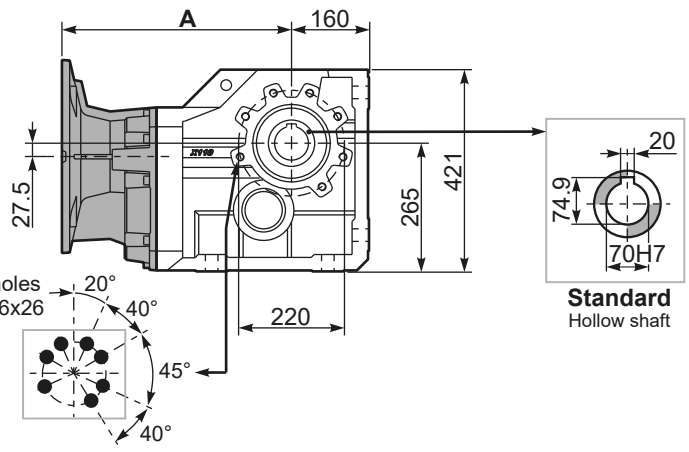
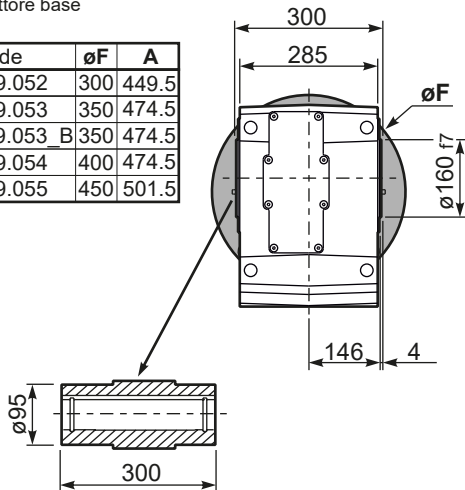
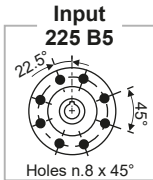
3D dimensions on the Web

Angletech - Gear 4500Nm **X113**

PX113C... Basic Gearbox
Riduttore base

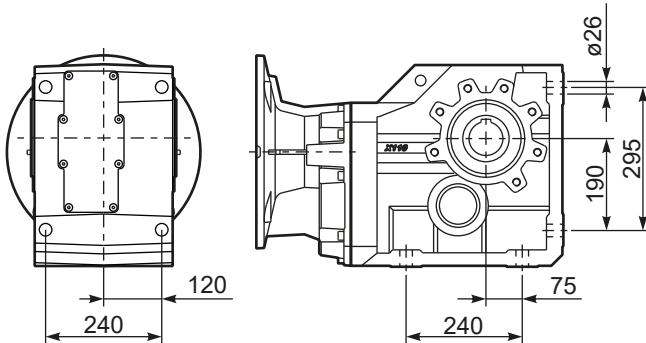
Gearbox weight
peso riduttore **170 kg**

M. flanges	Kit code	øF	A
132B5	KC110.9.052	300	449.5
160B5	KC110.9.053	350	474.5
180B5	KC110.9.053 B	350	474.5
200B5	KC110.9.054	400	474.5
225B5	KC110.9.055	450	501.5

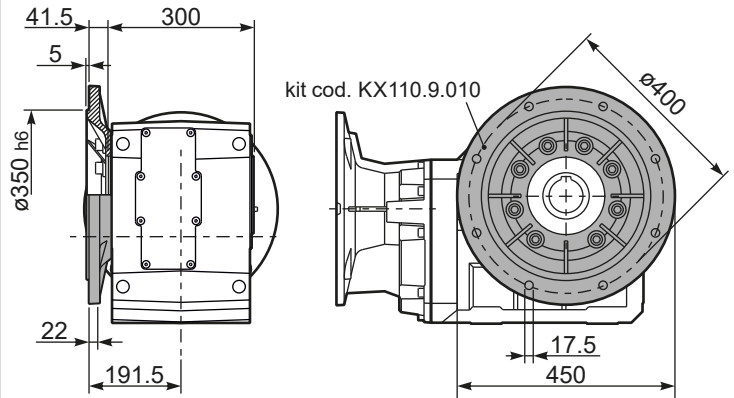


Mounting holes position
Posizione fori di montaggio

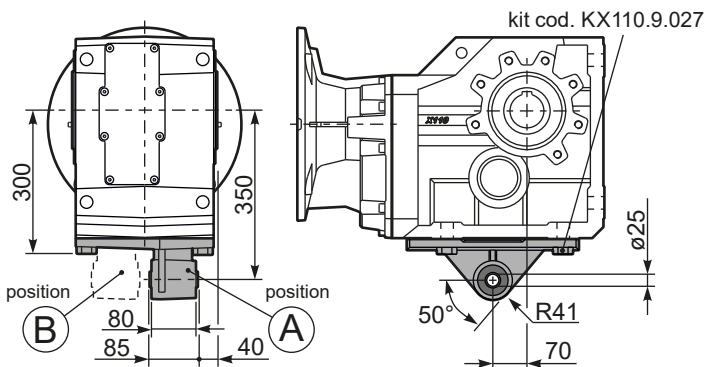
PX113...FB.. Feet
Piedini



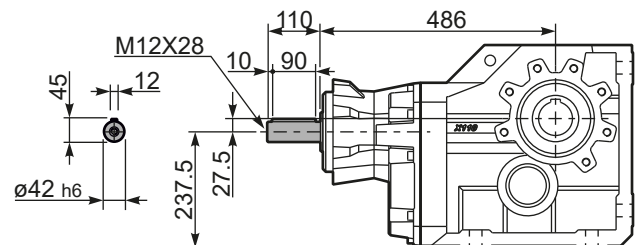
PX113...-F7.. Output flange
Flangia uscita



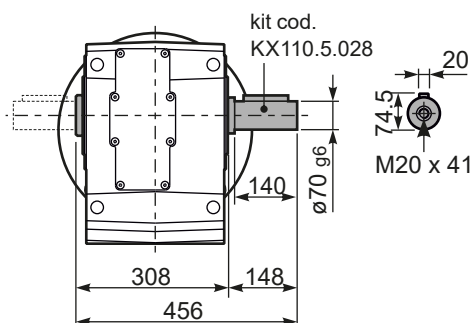
PX113...BR.. Reaction Arm
Braccio di reazione



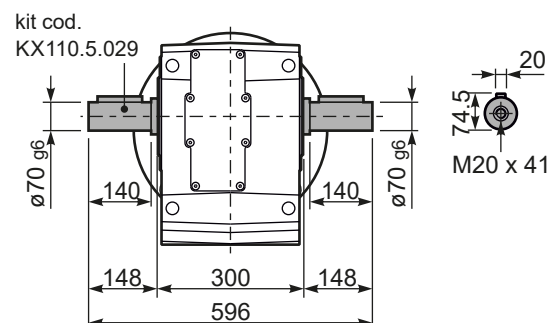
RX113... Input shaft
Albero in entrata



PX113A... Single shaft
Albero lento semplice



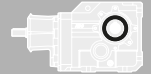
PX113B... Double shaft
Albero lento bisp.



X114

Angletech - Gear 4600Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges			B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-H	-U	-V			
							100 112	132	160	100 112	132			
28.8	48.57	15	4390	1.0	14.8	4500							30142911	01
20.5	68.43	11	4545	1.0	10.7	4600							20142914	02
18.7	74.95	11	4977	0.9	9.8	4600							20142913	03
15.1	92.53	7.5	4216	1.1	7.9	4600							16142914	04
13.8	101.33	7.5	4617	1.0	7.2	4600							16142913	05
11.6	120.33	5.5	4051	1.1	6.1	4600							13142914	06
11.3	123.75	5.5	4166	1.1	5.8	4500							16142911	07
10.6	131.78	5.5	4436	1.0	5.6	4600							13142913	08
9.5	147.28	5.5	4958	0.9	5.0	4600							11142914	09
8.7	161.30	4	3972	1.2	4.5	4600							11142913	10
7.1	196.98	3	3652	1.2	3.6	4500							11142911	11
6.6	212.99	3	3949	1.2	3.4	4600							8142914	12
6.0	233.26	3	4324	1.1	3.1	4600							8142913	13
4.9	284.86	2.2	3889	1.2	2.5	4500							8142911	14

The dynamic efficiency is **0.92** for all ratios

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 **X114** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X114** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X114** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X114** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X114** 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.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
14.50 LT	8.50 LT	16.50 LT	16.00 LT	23.00 LT	14.50 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

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

tab. 1

RADIAL AND AXIAL LOADS									
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{325.5}{X+255.5}$						
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R	
300	2100	10500	140	3100	15500	70	4200	21000	
250	2600	13000	120	3240	16200	40	5600	28000	
200	3000	15000	85	3600	18000	15	8000	40000	
Input shaft Albero in entrata									
n_1	F_A	F_R							
1400	700	3500							
900	840	4200							
500	900	4500							

tab. 2

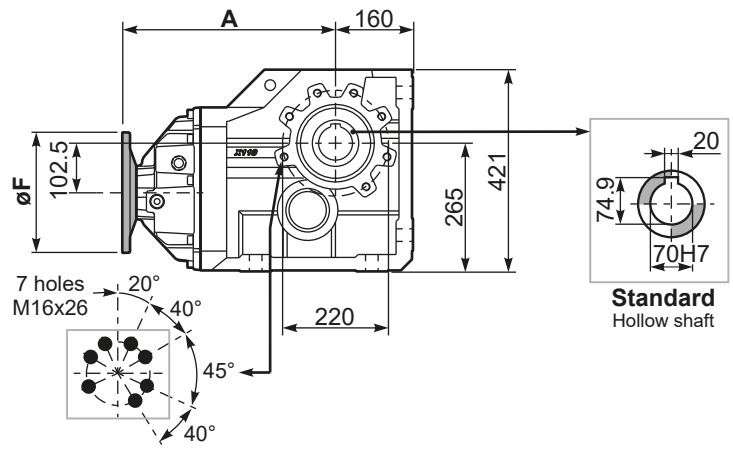
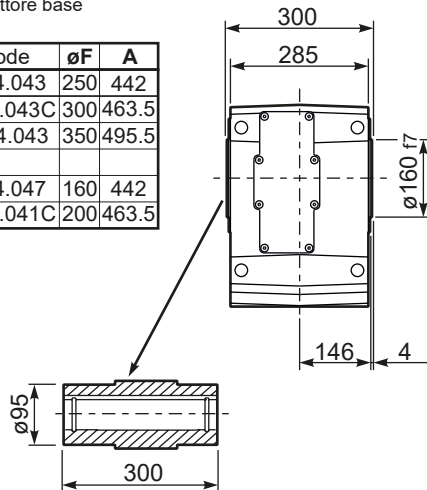
3D dimensions on the Web

Angletech - Gear 4600Nm **X114**

PX114C... Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **161 kg**

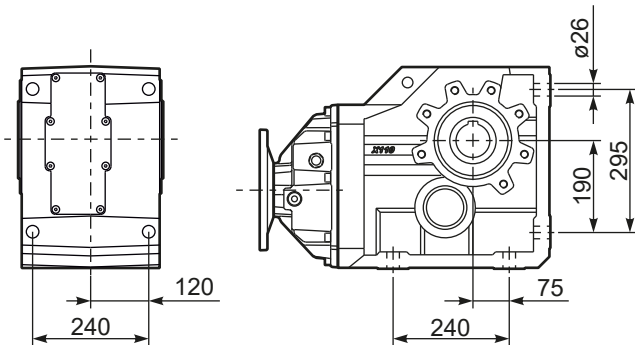
M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	442
132B5	KC51.4.043C	300	463.5
160B5	KC86.4.043	350	495.5
100/112B14	K085.4.047	160	442
132B14	KC51.4.041C	200	463.5



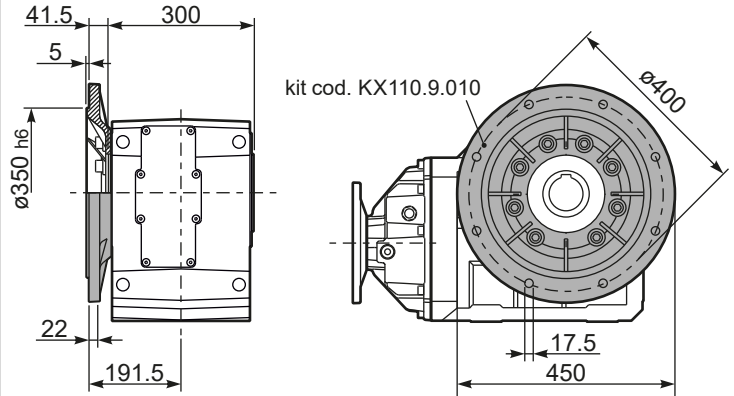
Mounting holes position
Posizione fori di montaggio

Standard
Hollow shaft

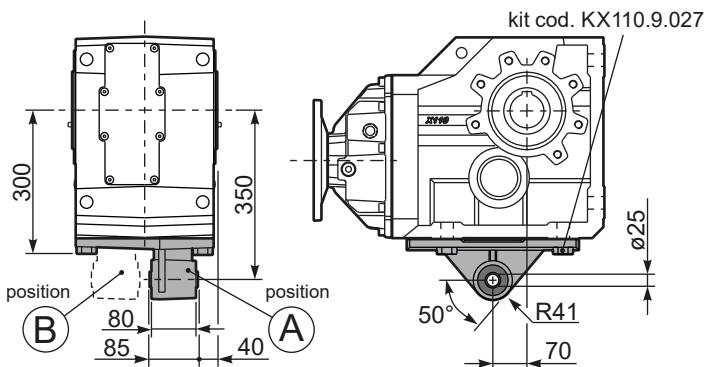
PX114...FB.. Feet
Piedini



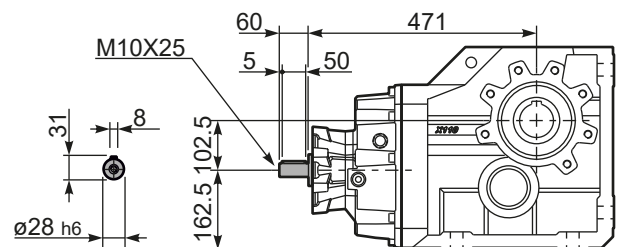
PX114...-F7.. Output flange
Flangia uscita



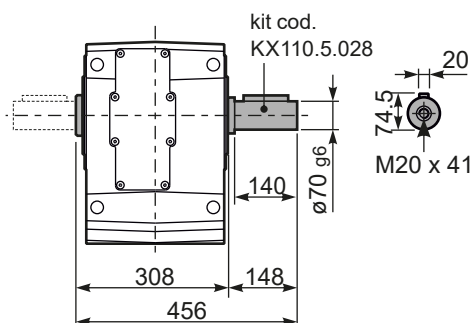
PX114...BR.. Reaction Arm
Braccio di reazione



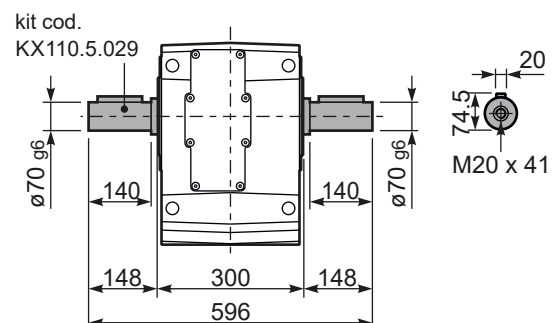
RX114... Input shaft
Albero in entrata



PX114A... Single shaft
Albero lento semplice



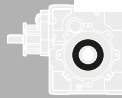
PX114B... Double shaft
Albero lento bisp.



113C

Angletech - Gear
675Nm

Rating - Cast iron HELICAL-BEVEL GEARBOXES



■ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100	112	132	80	90	100	112		
176	7.94	7.5	369	1.0	7.5	380	B										302418	01
153	9.13	7.5	425	0.9	6.7	390	B										302416	02
131	10.66	5.5	366	1.1	6.0	410	B										302414	03
94	14.97	5.5	514	1.1	6.0	580	B										202418	04
81	17.21	5.5	591	1.0	5.4	600	B										202416	05
69	20.24	5.5	695	1.0	5.2	675	B										162418	06
60	23.27	4	585	1.2	4.5	675	B										162416	07
53	26.31	4	661	1.0	4.0	675	B										132418	08
46.3	30.25	4	760	0.9	3.5	675	B										132416	09
39.6	35.32	3	668	1.0	3.0	675	B										132414	10
37.8	37.03	3	701	1.0	2.8	675	B										112416	11
32.4	43.23	2.2	602	1.1	2.4	675	B										112414	12
30.1	46.58	2.2	649	1.0	2.3	675	B										82418	13
26.1	53.55	2.2	746	0.9	2.0	675	B										82416	14
22.4	62.52	1.5	600	1.1	1.7	675	B										82414	15
19.0	73.75	1.1	517	1.1	1.2	580	B										62416	16
16.3	86.09	1.1	604	1.1	1.2	675	B										62414	17

The dynamic efficiency is **0.94** for all ratios

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 **113C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **113C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **113C** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **113C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **113C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
4.00 LT	2.60 LT	2.60 LT	2.60 LT	5.15 LT	2.20 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

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

RADIAL AND AXIAL LOADS

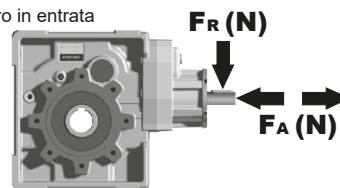
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{171}{X+131}$		
n_2	FA	FR	n_2	FA	FR
300	640	3200	140	860	4300
250	700	3500	120	900	4500
200	740	3700	85	1000	5000
n_2	FA	FR	n_2	FA	FR
70	1080	5400	40	1300	6500
40	1300	6500	15	1840	9200

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

3D dimensions on the Web

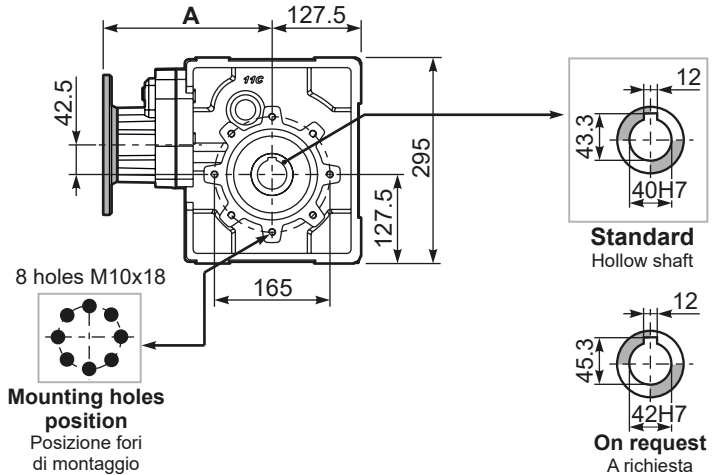
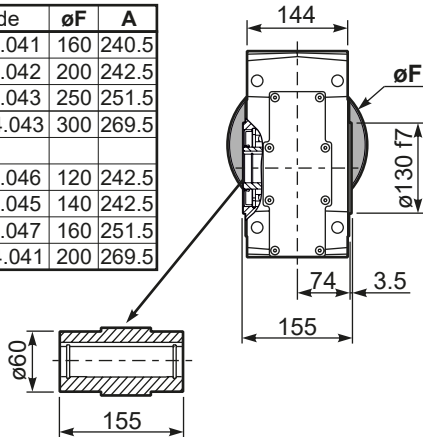
Angletech - Gear
675Nm

113C

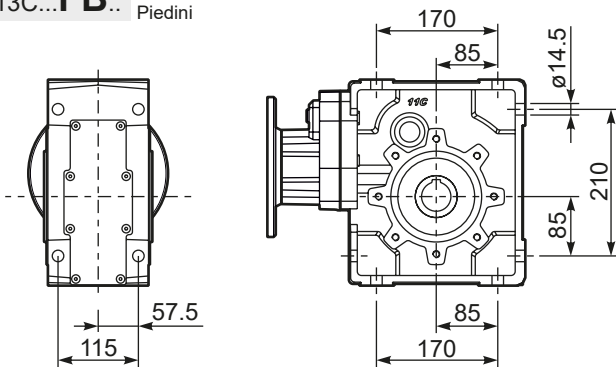
P113CC... Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **38.0 kg**

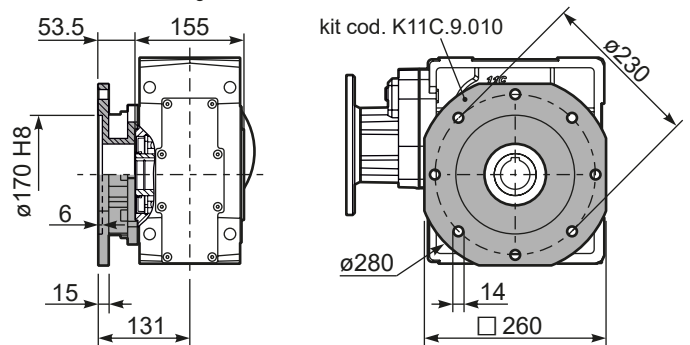
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	240.5
80/90B5	K023.4.042	200	242.5
100/112B5	K023.4.043	250	251.5
132B5	KC50.4.043	300	269.5
80B14	K085.4.046	120	242.5
90B14	K085.4.045	140	242.5
100/112B14	K085.4.047	160	251.5
132B14	KC50.4.041	200	269.5



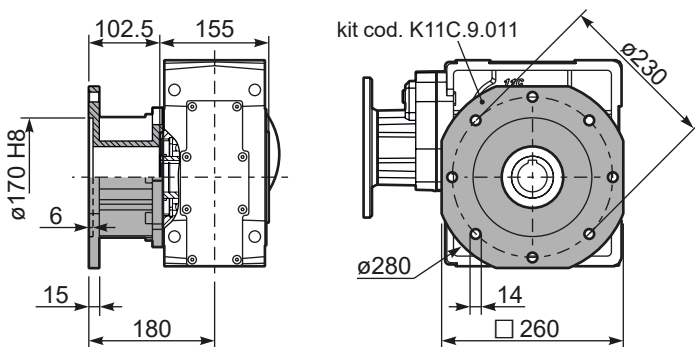
P113C...FB.. Feet
Piedini



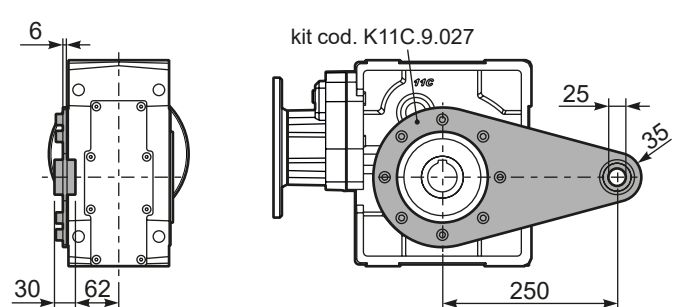
P113C...-FC.. Output flange
Flangia uscita



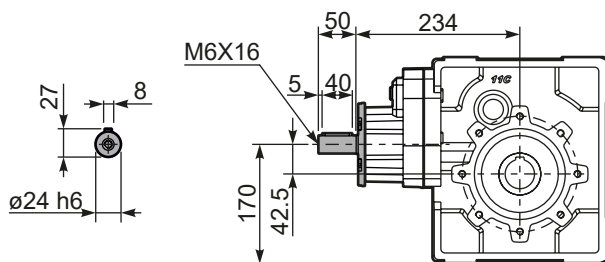
P113C...-FL.. Output flange
Flangia uscita



P113C...BR.. Reaction Arm
Braccio di reazione

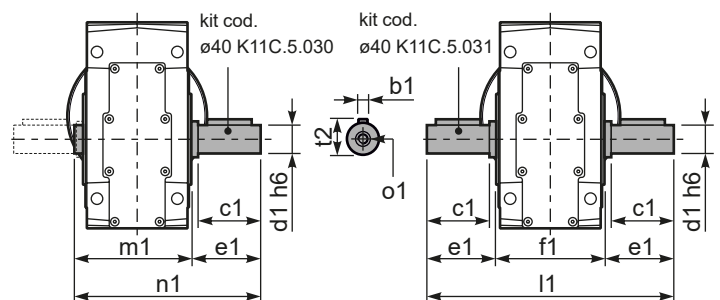


R113C... Input shaft
Albero in entrata



P113CA... Single shaft
Albero lento semplice

P113CB... Double shaft
Albero lento bisp.

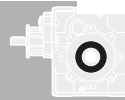


	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
ø40 Standard	12	80	40	84.5	155	324	164.5	249	43	M12
On request	-	-	-	-	-	-	-	-	-	-

114C

Angletech - Gear
675Nm

Rating - Cast iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.7	74.79	1.5	704	1.0	1.4	675	B				C	C		19132418	01
16.3	85.99	1.1	591	1.1	1.3	675	B				C	C		19132416	02
14.0	99.66	1.1	685	1.0	1.1	675	B				C	C		17132416	03
12.0	116.35	0.75	548	1.2	0.92	675	B				C	C		17132414	04
11.5	121.45	0.75	572	1.2	0.89	675	B				C	C		13132418	05
10.0	139.64	0.75	658	1.0	0.77	675	B				C	C		13132416	06
9.2	152.21	0.75	717	0.9	0.71	675	B				C	C		19082416	07
8.6	163.02	0.55	567	1.2	0.66	675	B				C	C		13132414	08
7.9	177.69	0.55	618	1.1	0.61	675	B				C	C		19082414	09
6.8	205.95	0.55	716	0.9	0.52	675	B				C	C		17082414	10
6.3	222.52	0.55	774	0.9	0.48	675	B				C	C		10132414	11
5.6	248.76	0.37	578	1.2	0.43	675	B				C	C		9132416	12
4.8	290.41	0.37	675	1.0	0.37	675	B				C	C		9132414	13
4.1	337.39	0.37	784	0.9	0.32	675	B				C	C		10082416	14
3.6	393.88	0.25	618	1.1	0.27	675	B				C	C		10082414	15
3.2	440.33	0.25	690	1.0	0.24	675	B				C	C		9082416	16
2.7	514.06	0.18	616	1.1	0.21	675	B				C	C		9082414	17
2.4	581.44	0.18	697	1.0	0.18	675	B				C	C		7082416	18
2.1	678.79	0.12	526	1.3	0.16	675	B				C	C		7082414	19

The dynamic efficiency is **0.92** for all ratios

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 **114C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **114C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **114C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

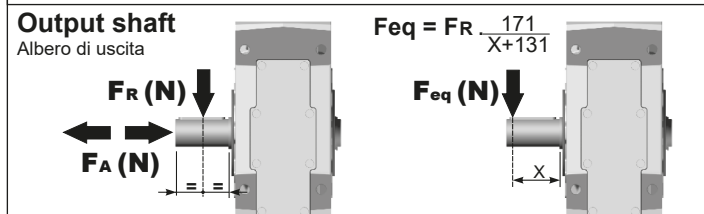
F Le réducteur **114C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **114C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
4.10 LT	2.70 LT	2.70 LT	2.70 LT	5.30 LT	2.35 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

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

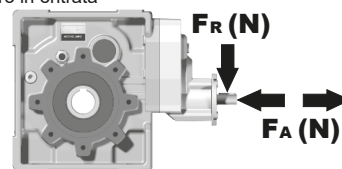
RADIAL AND AXIAL LOADS



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	640	3200	140	860	4300	70	1080	5400
250	700	3500	120	900	4500	40	1300	6500
200	740	3700	85	1000	5000	15	1840	9200

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



n_1	FA	FR
1400	240	1200
900	280	1400
500	310	1700

tab. 2

3D dimensions on the Web

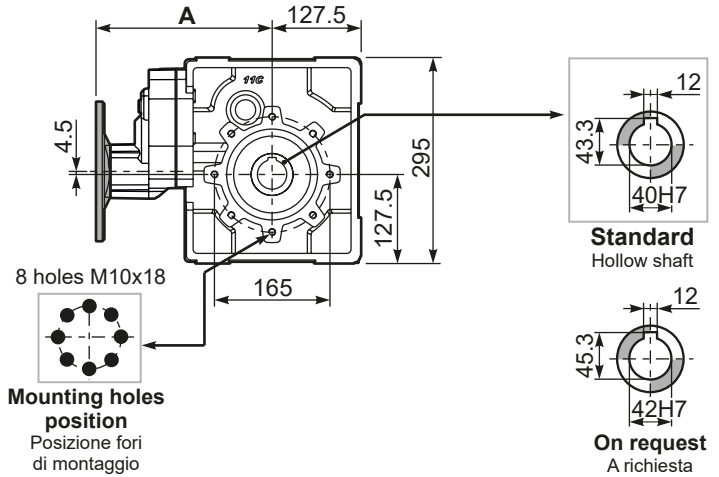
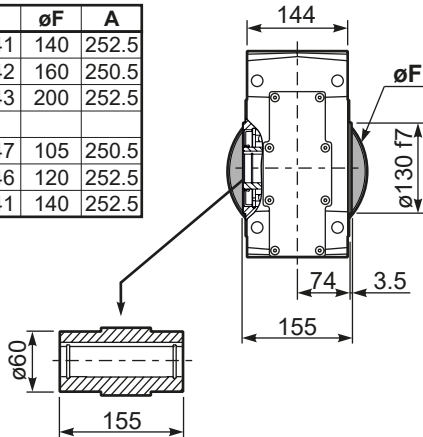
Angletech - Gear
675Nm

114C

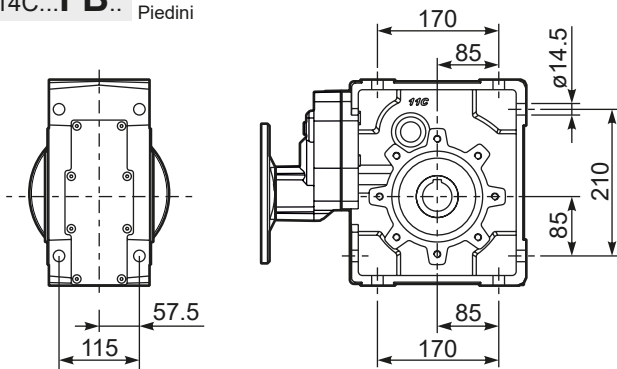
P114CC... Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore **38.0 kg**

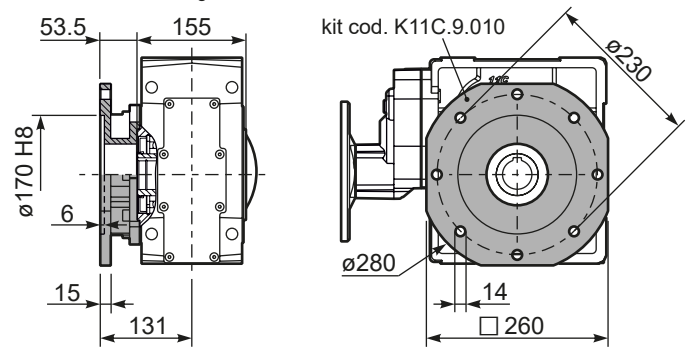
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	252.5
71B5	K063.4.042	160	250.5
80/90B5	K063.4.043	200	252.5
71B14	K063.4.047	105	250.5
80B14	K063.4.046	120	252.5
90B14	K063.4.041	140	252.5



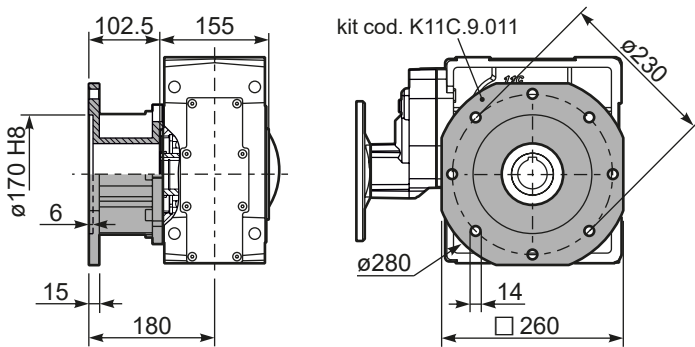
P114C...FB.. Feet
Piedini



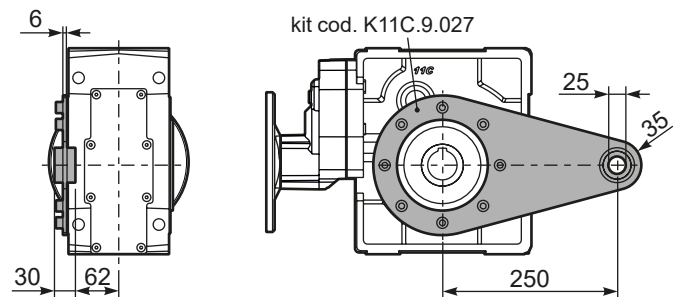
P114C...-FC.. Output flange
Flangia uscita



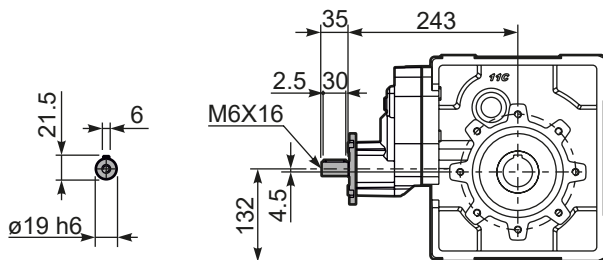
P114C...-FL.. Output flange
Flangia uscita



P114C...BR.. Reaction Arm
Braccio di reazione

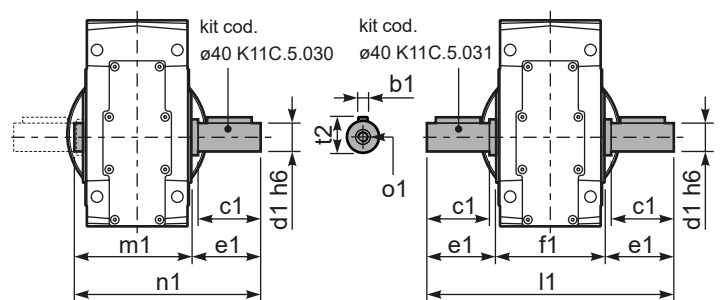


R114C... Input shaft
Albero in entrata



P114CA... Single shaft
Albero lento semplice

P114CB... Double shaft
Albero lento bisp.



	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
ø40 Standard	12	80	40	84.5	155	324	164.5	249	43	M12
On request	-	-	-	-	-	-	-	-	-	-

133C

Angletech Gear 1000Nm

Rating - Cast Iron
HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	 Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
145	9.69	9	560	1.3	12.2	755	B								302418	standard ø45	01	
126	11.09	9	641	1.1	9.6	680	B								302416		02	
108	12.90	9	746	1.1	9.6	790	B								302414		03	
77	18.26	7.5	849	1.1	8.0	935	B								202418		04	
67	20.91	7.5	972	1.0	7.5	1000	B								202416		05	
58	24.32	5.5	835	1.2	6.4	1000	B								202414		06	
49.5	28.27	5.5	971	1.0	5.5	1000	B								162416	ø40 on request	07	
42.6	32.88	4	826	1.2	4.7	1000	B								162414		08	
38.1	36.76	4	924	1.1	4.2	1000	B								132416		09	
32.7	42.76	3	809	1.2	3.6	1000	B								132414		10	
31.1	45.00	3	851	1.2	3.5	1000	B								112416		11	
26.8	52.33	3	990	1.0	3.0	1000	B								112414		12	
24.6	56.82	2.2	791	1.1	2.3	850	B								82418	13		
21.5	65.07	2.2	906	1.1	2.3	975	B								82416	14		
18.5	75.68	2.2	1054	0.9	2.1	1000	B								82414	15		
15.6	89.61	1.1	628	1.1	1.2	710	B								62416	16		
13.4	104.22	1.1	731	1.1	1.2	820	B								62414	17		

The dynamic efficiency is **0.94** for all ratios

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 **133C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **133C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **133C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **133C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

E El reductor tamaño **133C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
6.00 LT	4.30 LT	4.30 LT	3.30 LT	7.20 LT	3.10 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

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

RADIAL AND AXIAL LOADS

Output shaft Albero di uscita			Input shaft Albero in entrata		
n_2	FA	FR	n_2	FA	FR
300	800	4000	140	1120	5600
250	900	4500	120	1200	6000
200	960	4800	85	1300	6500
n_2	FA	FR	n_2	FA	FR
70	1400	7000	40	1700	8500
40	1700	8500	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

	n_1	FA	FR
	1400	450	2250
	900	500	2500
	500	600	3000

tab. 2

134C

Angletech Gear 1000Nm

Rating - Cast Iron HELICAL-BEVEL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
15.3	91.23	1.5	858	1.2	1.7	1000	B				C	C		19132418	01
13.4	104.48	1.5	983	1.0	1.5	1000	B				C	C		19132416	02
11.6	121.10	1.5	1139	0.9	1.3	1000	B				C	C		17132416	03
9.9	140.84	1.1	968	1.0	1.1	1000	B				C	C		17132414	04
8.5	165.32	1.1	1136	0.9	0.96	1000	B				C	C		15132414	05
7.6	184.94	0.75	872	1.1	0.86	1000	B				C	C		19082416	06
7.1	197.34	0.75	930	1.1	0.81	1000	B				C	C		13132414	07
6.5	215.10	0.75	1014	1.0	0.74	1000	B				C	C		19082414	08
6.0	231.60	0.55	805	1.2	0.69	1000	B				C	C		10132416	09
5.6	249.31	0.55	867	1.2	0.64	1000	B				C	C		17082414	10
5.2	269.37	0.55	937	1.1	0.59	1000	B				C	C		10132414	11
4.8	292.64	0.55	1018	1.0	0.54	1000	B				C	C		15082414	12
4.6	302.26	0.55	1051	1.0	0.53	1000	B				C	C		9132416	13
4.0	349.30	0.37	812	1.2	0.46	1000	B				C	C		13082414	14
3.5	399.12	0.37	928	1.1	0.40	1000	B				C	C		7132416	15
2.9	476.80	0.37	1108	0.9	0.33	1000	B				C	C		10082414	16
2.2	622.28	0.25	976	1.0	0.26	1000	B				C	C		9082414	17
1.7	821.70	0.18	985	1.0	0.19	1000	B				C	C		7082414	18

The dynamic efficiency is **0.92** for all ratios

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 **134C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **134C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **134C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **134C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **134C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
6.10 LT	4.40 LT	4.40 LT	3.40 LT	7.50 LT	3.20 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website

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

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$F_R(N)$
 $F_A(N)$

$F_{eq} = F_R \cdot \frac{184.5}{X+144.5}$
 $F_{eq}(N)$

n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	800	4000	140	1120	5600	70	1400	7000
250	900	4500	120	1200	6000	40	1700	8500
200	960	4800	85	1300	6500	15	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

$F_R(N)$
 $F_A(N)$

n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

3D dimensions on the Web

Angletech gear
1000Nm

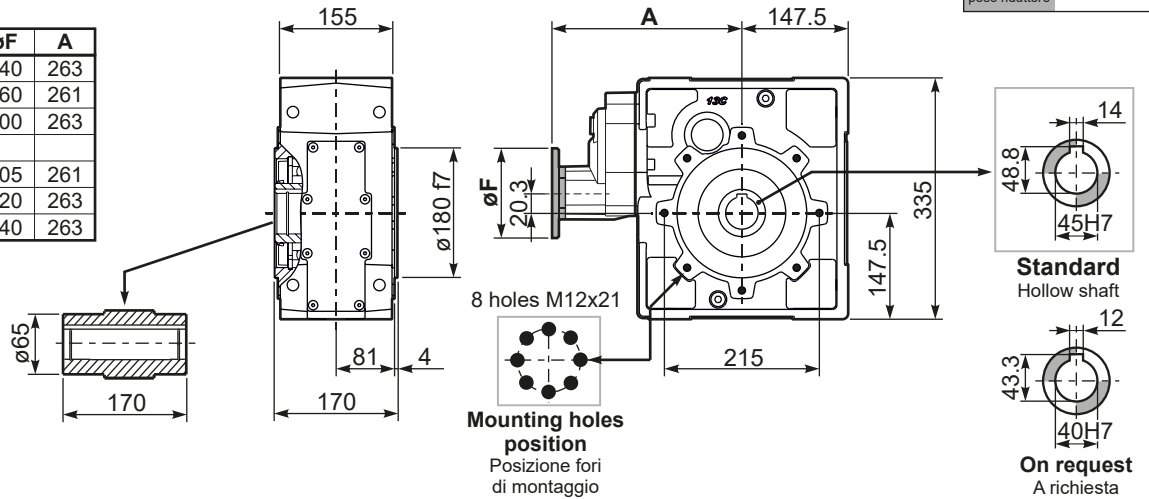
134C

P134CC...

Basic gearbox
Riduttore base

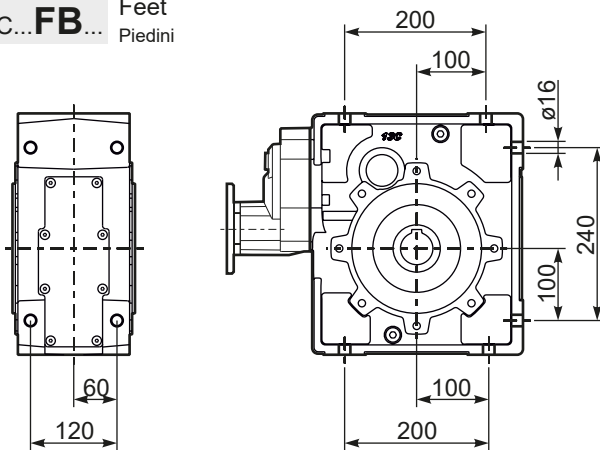
Gearbox
weight
peso riduttore **53.5 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	263
71B5	K063.4.042	160	261
80/90B5	K063.4.043	200	263
71B14	K063.4.047	105	261
80B14	K063.4.046	120	263
90B14	K063.4.041	140	263



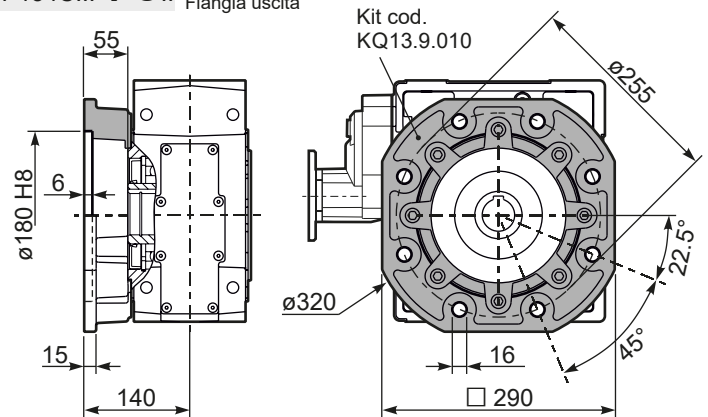
P134C...FB...

Feet
Piedini



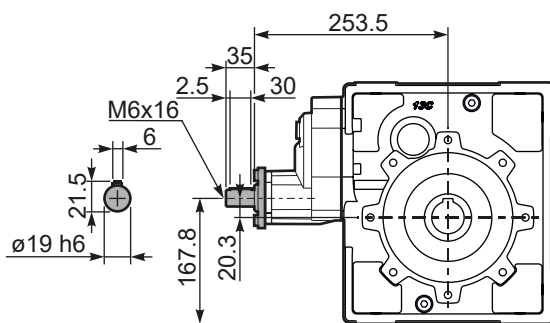
P134C...-FC...

Output flange
Flangia uscita



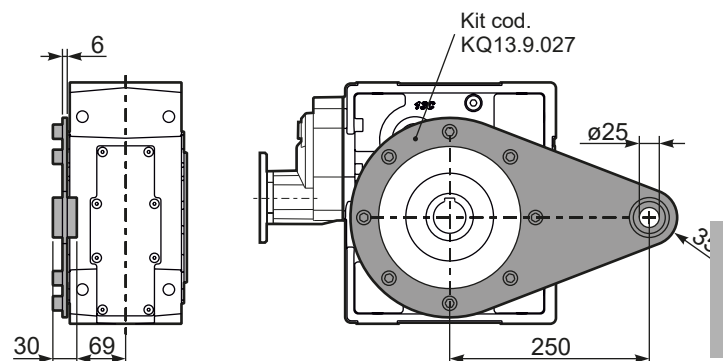
R134C...

Input Shaft
Albero in entrata



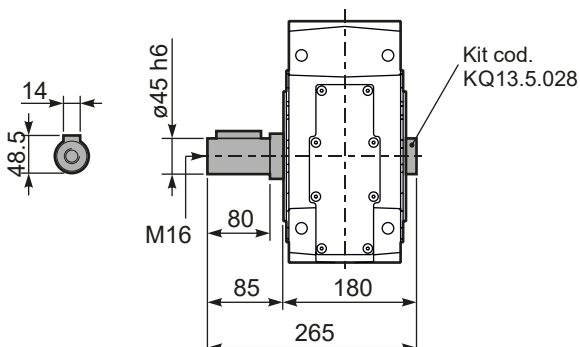
P134C...BR...

Reaction arm
Braccio di reazione



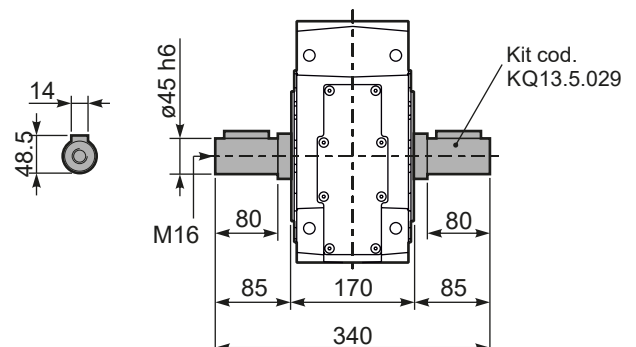
P134CA..

Single output Shaft
Albero lento semplice



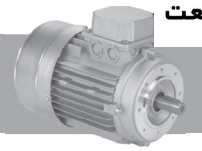
P134CB..

Double Input Shaft
Albero lento bisporgente



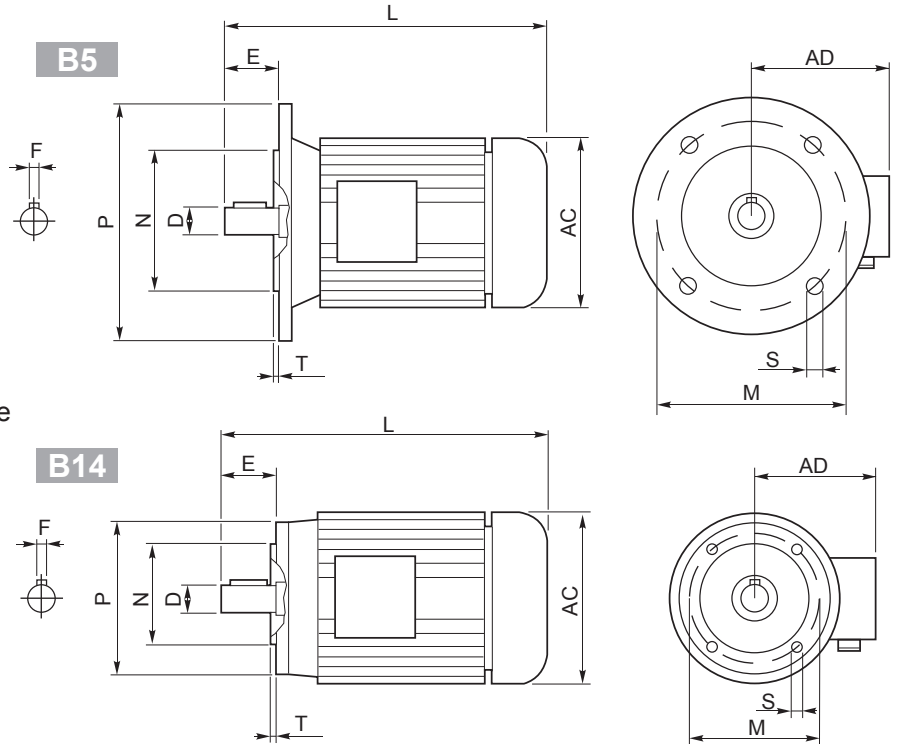
M-1

Aluminum IEC motors



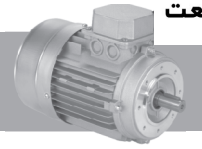
- 1) 230/400V - 50Hz three-phase asynchronous induction motor
- 2) Class F insulation
- 3) S1 duty
- 4) IP 55 protection
- 5) Not painted
- 6) Hard plastic sleeve to protect output shaft during the transportation

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



Outside dimensions and weight may be different according to manufacturers.
Le dimensioni esterne e il peso sono indicative, possono variare tra i vari costruttori.

	2 poli / poles			4 poli / poles			6 poli / poles			B5-B14						B5					B14					Kg
	kW	Nm	A (400V)	kW	Nm	A (400V)	kW	Nm	A (400V)	D	F	E	L	AC	AD	N	M	P	S	T	N	M	P	S	T	
56 A	0.09	0.32	0.38	0.06	0.44	0.27	—	—	—	9	3	20	199	108	96	80	100	120	7	2.5	50	65	80	M5	2.5	2.7
56 B	0.12	0.42	0.46	0.09	0.67	0.37	—	—	—																	2.9
63 A	0.18	0.63	0.60	0.12	0.84	0.50	0.09	0.99	0.57	11	4	23	208	120	99	95	115	140	9.5	3	60	75	90	M5	2.5	3.8
63 B	0.25	0.87	0.76	0.18	1.30	0.69	0.12	1.32	0.74																	4.2
71 A	0.37	1.30	1.00	0.25	1.70	0.91	0.18	1.90	0.80	14	5	30	-	130	104	110	130	160	9.5	3.5	70	85	105	M6	2.5	5.9
71 B	0.55	1.90	1.54	0.37	2.52	1.14	0.25	2.72	1.10				255	141	107											6.5
80 A	0.75	2.60	1.85	0.55	3.77	1.51	0.37	3.84	1.18	19	6	40	296	159	127	130	165	200	11.5	3.5	80	100	120	M6	3	8.5
80 B	1.1	3.90	2.64	0.75	5.11	2.57	0.55	5.84	1.80																	10
90 S	1.5	5.00	3.31	1.1	7.45	2.78	0.75	7.92	2.32	24	8	50	-	170	135	130	165	200	11.5	3.5	95	115	140	M8	3	12.5
90 L	2.2	7.50	4.46	1.5	10.2	3.61	1.1	11.6	3.45				330													15
100 LA	3.0	10.0	6.28	2.2	14.8	5.07	1.5	15.4	3.88																	20
100 LB	—	—	—	3.0	20.1	6.66	—	—	—	28	8	60	-	190	148	180	215	250	13	4	110	130	160	M8	3.5	22
112 M	4.0	13.4	8.10	4.0	26.7	8.55	2.2	22.6	5.30				381	210	164											35
132 S	5.5	18.3	11.2	5.5	36.5	11.4	3.0	30.2	7.20				455													41
	7.5	24.9	15.3							38	10	80		244	180	230	265	300	14	4	130	165	200	M10	4	51
132 M	—	—	—	7.5	49.4	15.0	4.0	40.0	9.13				500													51
				9	61.4	18.5																				
160 M	—	—	—	11	72	21.5	—	—	—	42	12	110	613	335	246	250	300	350	18	5	—	—	—	—	—	79.2
160 L	—	—	—	15	98	29	—	—	—				657													97.5
180 M	—	—	—	18.5	121	35.5	—	—	—	48	14	110	712	366	266	250	300	350	19	5	—	—	—	—	—	170
180 L	—	—	—	22	144	42	—	—	—																	
200 L	—	—	—	30	196	53	—	—	—	55	16	110	780	405	341	300	350	400	19	5	—	—	—	—	—	240
225 S	—	—	—	37	240	69	—	—	—	60	18	140	888	463	360	350	400	450	19	5	—	—	—	—	—	305
225 M	—	—	—	45	292	84	—	—	—																	310



M-2

ELECTRIC MOTORS / MOTORI ELETTRICI / ELEKTROMOTOREN MOTEURS ÉLECTRIQUES / MOTORES ELÉCTRICOS

Protection

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

Grado di protezione

IP55 Standard
Specificare in sede di ordinazione per IP superiore.

Schutzart

IP55 Standard.
Höheren IP Grad bitte im Auftrag angeben.

Degré de protection

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

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

Insulation

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

Isolamento

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

Isolierung

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

Isolement

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

Aislamiento

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

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

Connections

Collegamenti

Verbindungselemente

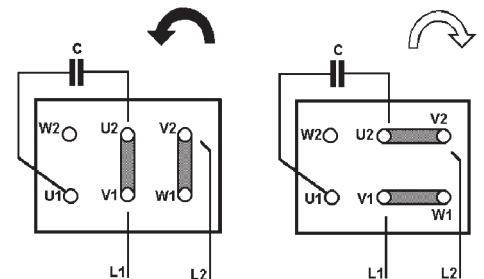
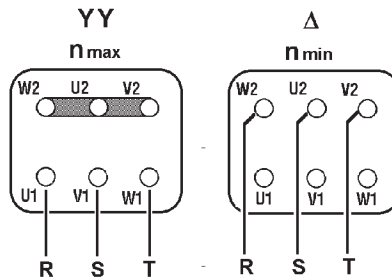
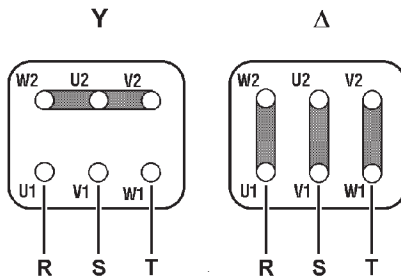
Branchements

Conexiones

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

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

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



NOTES / NOTE / AUFZEICHNUNG / NOTAS

IMPORTANT INFORMATION / INFORMAZIONI IMPORTANTI

Please Read Carefully

The following WARNING and CAUTION information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your product. Read ALL instructions prior to operating reducer. Injury to personnel or reducer failure may be caused by improper installation, maintenance or operation.

WARNING:

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

SELLING CONDITIONS

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

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

Leggere attentamente

Le seguenti raccomandazioni sono fondamentali per la vostra protezione e per garantirvi molti anni di sicuro funzionamento del vostro prodotto senza alcun problema. Leggere attentamente tutte le istruzioni prima di azionare il riduttore. L'inappropriata installazione, manutenzione o funzionamento del riduttore può causare incidenti al personale addetto e danni al riduttore stesso.

ATTENZIONE:

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

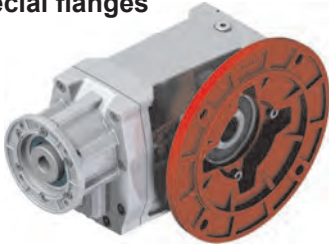
CONDIZIONI DI VENDITA

La garanzia relativa a difetti di costruzione ha la durata di un anno dalla data di fatturazione della merce. Tale garanzia comporta per Hydro-mec l'onere della sostituzione o riparazione delle parti difettose ma non ammette ulteriori addebiti per eventuali danni diretti o indiretti di qualsiasi natura. La garanzia decade nel caso in cui siano state eseguite riparazioni o apportate modifiche senza nostro consenso scritto.

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

Rev. 1.0

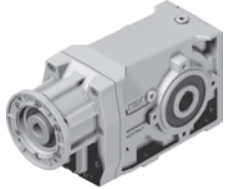
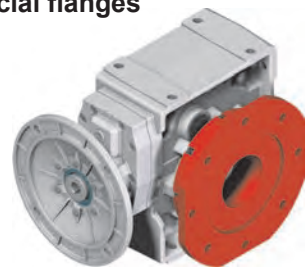
Special flanges



Stainless steel output shafts



Special flanges



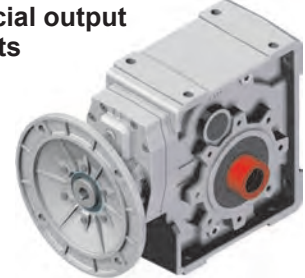
Color	RAL
light grey	7035

Special paint - Anticorrosive paint

Special output shafts



Special output shafts



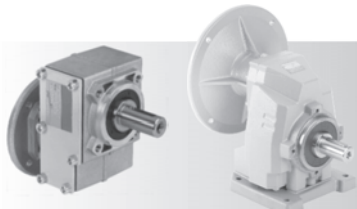
Others HYDRO-MEC products



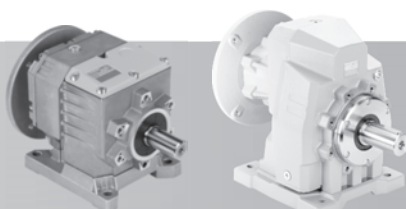
Worm gearboxes
Rid. a vite senza fine



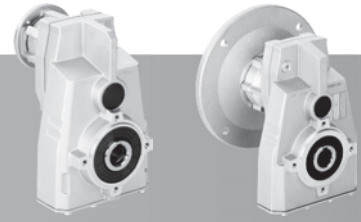
Square worm gearboxes
Rid. a vite senza fine quadro



One step gearboxes
Riduttori ad uno stadio



Coaxial gearboxes
Riduttori coassiali



Shaft mounted gearboxes
Riduttori pendolari



Stainless steel worm gearboxes
Rid. a vite senza fine Inox



Stainless steel one step gearbox
Riduttore uno stadio Inox

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