

Worm gearboxes type Q30 ÷ Q15

A modular and compact product

Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing.

No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

Single piece alloy steel input shaft and worm shaft.

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

Oversized bearings

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

Flange

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

Premium, high temperature

Nitrile® output seals

Bronze alloy worm gears.

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

Over-size bearing

For radial load capability and maximum hollow output shaft diameter.

Standard hollow output shaft mounting

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

Impregnated and machined bearing caps

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

Vent Free Design.

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

oil free



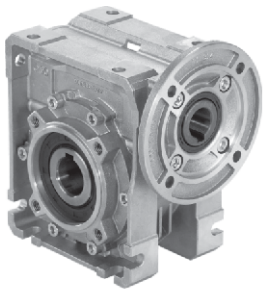
vent free



World wide sales network.

Specific type datasheet on page...

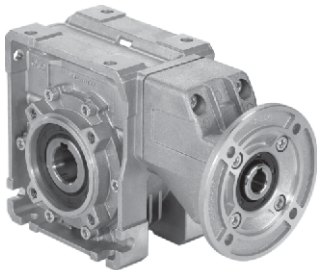
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Types / Tipi /
Tipen / Types /
Tipos →

2-5	2-7	2-9	2-11	2-13	2-15	2-17	2-19	2-21
Q30 21Nm	Q45 41Nm	Q50 72Nm	Q63 147Nm	Q75 270Nm	Q85 347Nm	Q11 651Nm	Q13 1050Nm	Q15 1550Nm

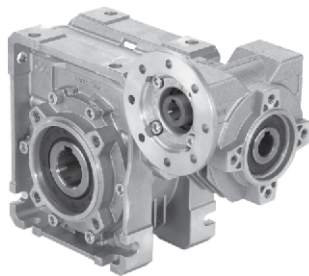
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Types / Tipi /
Tipen / Types /
Tipos →

2-23	2-25	2-27	2-29	2-31	2-33
P4Q 55Nm	P5Q 88Nm	P6Q 187Nm	P7Q 310Nm	P8Q 440Nm	P1Q 803Nm

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Types / Tipi /
Tipen / Types /
Tipos →

2-35	2-37	2-39	2-41	2-43	2-45	2-47
43Q 69Nm	53Q 109Nm	63Q 230Nm	64Q 265Nm	74Q 359Nm	84Q 518Nm	15Q 978Nm

Type - Tipo - Typ
Type - Tipo

Size - Grandezza
Größe - Taille
Tamaño

Mounting - Montaggio - Montage
Fixation - Tipo de montaje

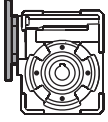
P

Q45

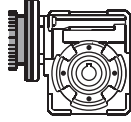
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Worm gearboxes

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



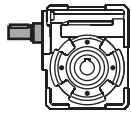
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M

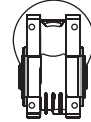


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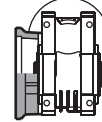


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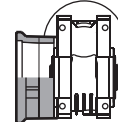
Q30
Q45
Q50
Q63
Q75
Q85
Q11
Q13
Q15



FB

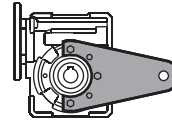


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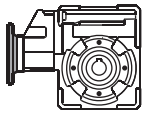
F1
F2
F3
F4



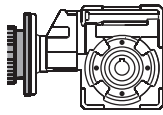
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Worm gearboxes with primary reduction

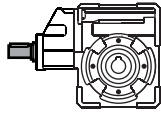
Riduttori a vite senza fine con precoppia
Schneckengetriebe mit Stirradstufe am Eintrieb
Reducteurs a vis sans fin avec pré-réduction
Reductores corona sin fin con prerreductora de engranajes



P



M

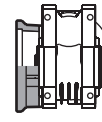


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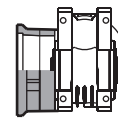
P4Q
P5Q
P6Q
P7Q
P8Q
P1Q



FB

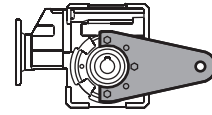


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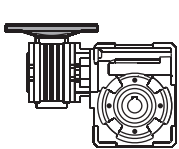
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F3
F4



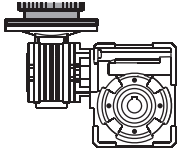
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Combined worm gearboxes

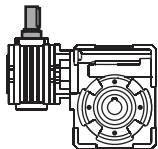
Riduttori a vite senza fine combinati
Schneckengetriebekombinationen
Reducteurs a double train de vis sans fin
Reductores combinados corona sin fin



P

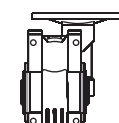


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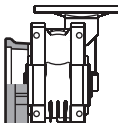


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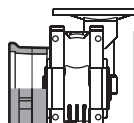
43Q
53Q
63Q
64Q
74Q
84Q
15Q



FB

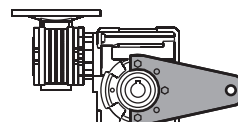


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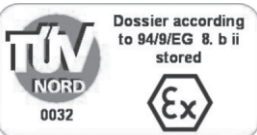


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F1
F2
F3
F4

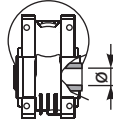
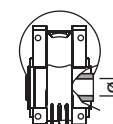
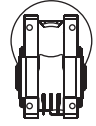
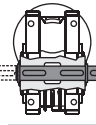
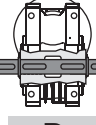
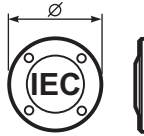




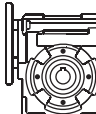





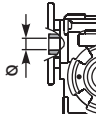


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On request we can deliver our products according to the ATEX
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern
Sur demande nos produits peuvent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

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Ratio Rapporto Untersetzung Reduction Relación	Hub Mozzo corona Hohlwelle Arbre creux Nucleo corona	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje solida	Motor size Grandezza motore Motor Grösse Grandeur moteur Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte a bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Position de montaje	Reduced Input bore Foro entrata ridotto Reduzierte Eingangshohlwelle Trou d'entree de diametre reduit Eje hueco de entrada reducido	Mountin position Esecuzione montaggio Einbaulage Exécution de montage Posición de montaje
10	C	∅	-Q	B	B3	-	---
See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir tableau données techniques Ver tabla datos técnicos	 C STANDARD Q30 ⇨ ∅14 Q45 ⇨ ∅18 Q50 ⇨ ∅25 Q63 ⇨ ∅25 Q75 ⇨ ∅30 Q85 ⇨ ∅35 Q11 ⇨ ∅42 Q13 ⇨ ∅45 Q15 ⇨ ∅50 I Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox Special series Serie Speciale S Q45 ⇨ ∅19 Q50 ⇨ ∅24 X Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox  U INCH Q45 ⇨ ∅0.750" Q50 ⇨ ∅1.000" Q63 ⇨ ∅1.125" Q85 ⇨ ∅1.500"	 ∅  S  D	 -M without flange Senza flangia B5 -A =56 (∅120) -B =63 (∅140) -C =71 (∅160) -D =80 (∅200) -E =90 (∅200) -F =100+112 (∅250) -G =132 (∅300) -H =160 (∅350) B14 -O =56 (∅80) -P =63 (∅90) -Q =71 (∅105) -R =80 (∅120) -T =90 (∅140) -U =100+112 (∅160) -V =132 (∅200) -0 =Type R -S =Type R S series Reduced FI. -1 =56B5/∅11 -2 =63B5/∅14 -3 =71B5/∅19 -4 =71B5/∅24 -5 =90B5/∅28 -6 =100B5/∅38 -7 =132B5/∅42 -8 =80B14/∅11 -9 =100B5/∅24	 A  B STANDARD  C  D	 B3  B8  B6  B7  V5  V6	 - Nothing indication standard bore Nessuna indicazione standard P Input bore reduced one size Foro entrata ridotto di una misura Ex. Input Flange 71 B14 Standard ∅14 Reduced ∅11 Q Input bore reduced two sizes Due grandezze ridotte foro entrata Ex. Input Flange 71 B14 Standard ∅14 Reduced ∅9	Only for combined units See technical data table Solo per i riduttori combinati Vedi tabella dati tecnici. Ausführungen für Getriebekombinationen it Uniquement pour combinés. Voir tableau données techniques Sólo para combinados ver tabla datos técnicos

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 / rotacion

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

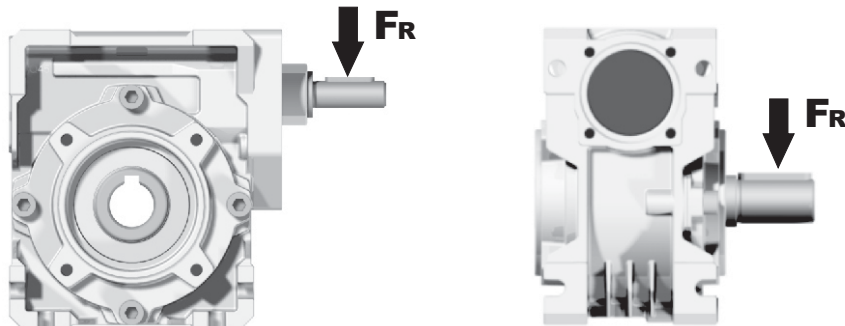
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

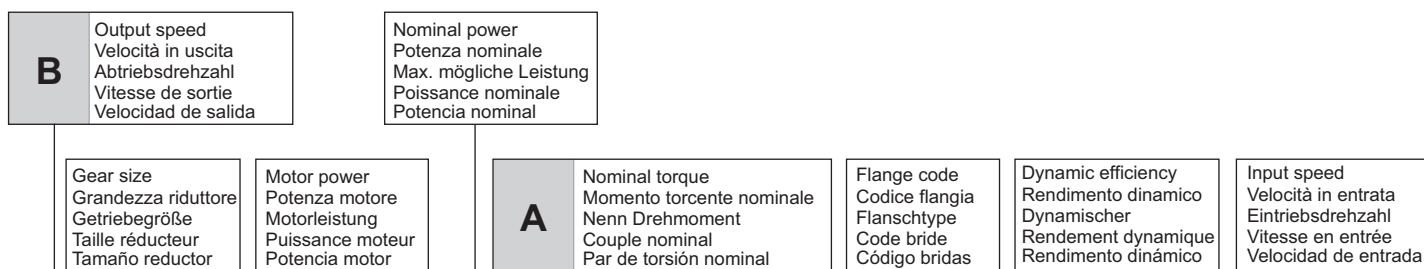
- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée 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



Q45 Square - Gear
41Nm

Rating - Aluminum WORM GEARBOXES



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

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency	Tooth Module [mm]	Ratios code
							B	C	O	P	Q			
200	7	0.37	14	2.2	0.80	30	B		B-C	B-C		80	2.2	01
140	10	0.37	20	1.5	0.57	30	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.1	0.41	30	B		B-C	B-C		77	2.4	03



fs

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

D Motor flange available
Flange disponibili
Erhältliche Motorflansche
Brides disponibles
Bridas disponibles

B) Mounting with reduction ring
Montaggio con boccola 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 boccola
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)