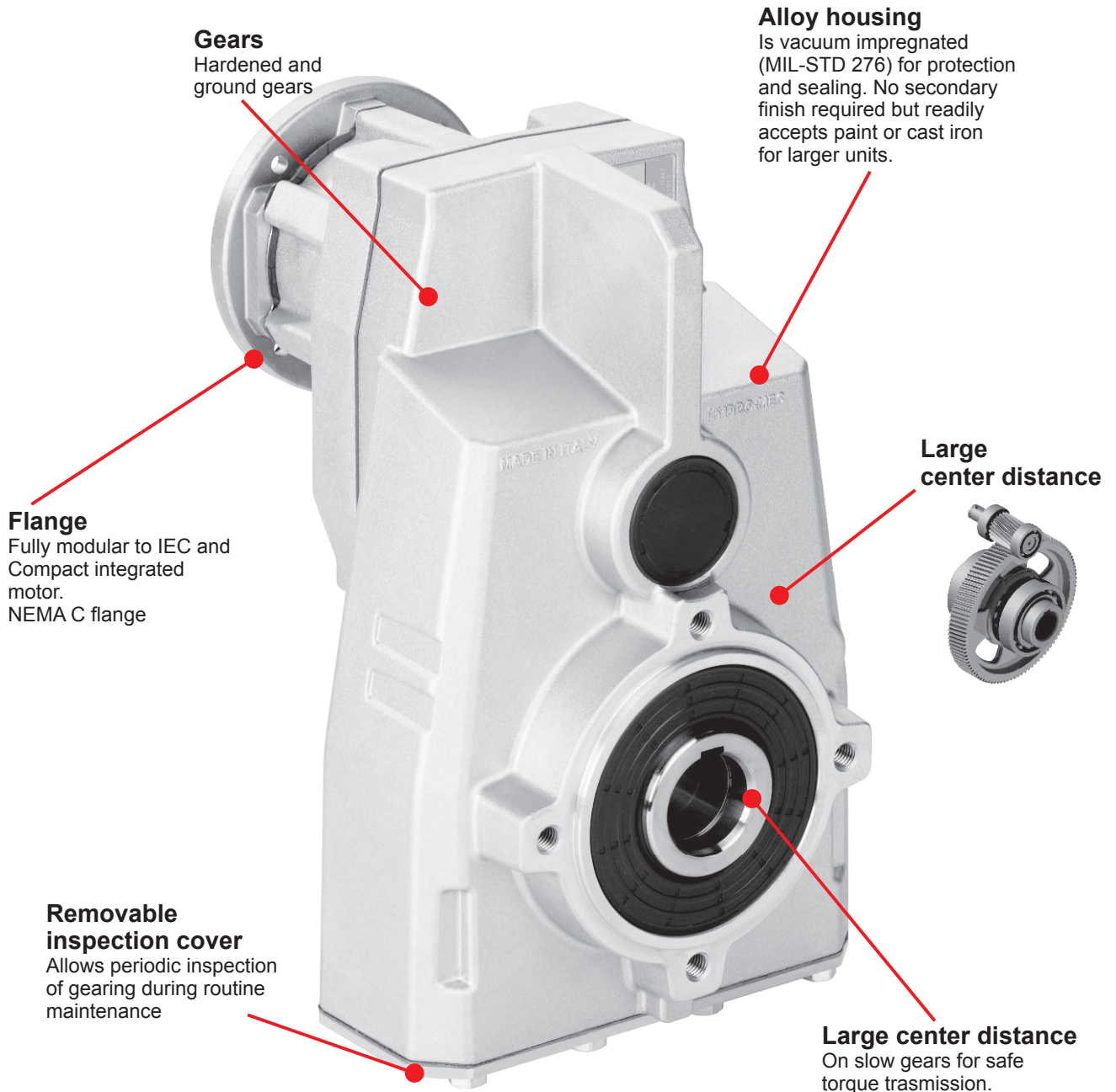


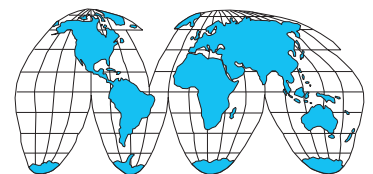
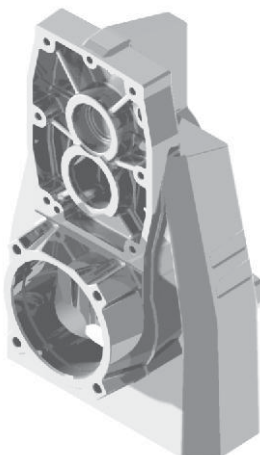
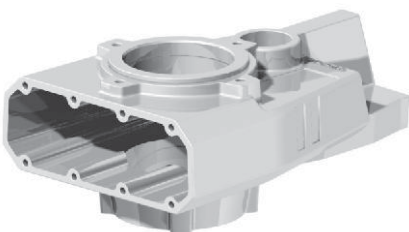
# Aluminum & cast iron shaft mounted gearboxes

## A modular and compact product



### Single-piece aluminum / Cast Iron housing

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

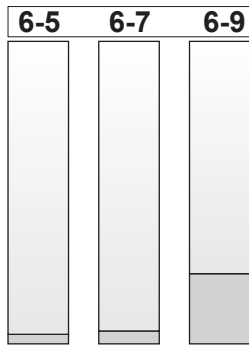


World wide sales network.

# Specific type datasheet on page...

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3 Stage

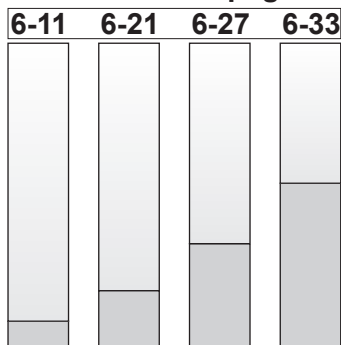
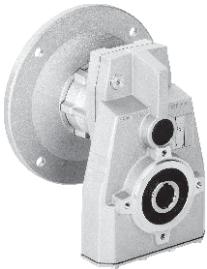


Types / Tipi /  
Tipen / Types /  
Tipos

**FS10** 60Nm  
**FS20** 90Nm  
**FS50** 480Nm

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

1 Stage

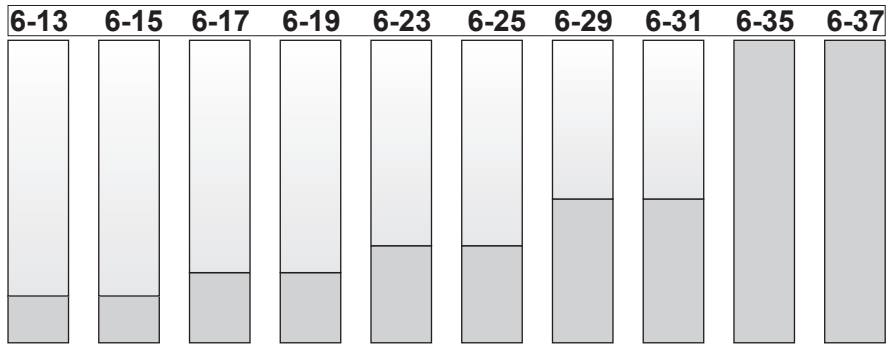


Types / Tipi /  
Tipen / Types /  
Tipos

**FA41** 225Nm  
**FC61** 380Nm  
**FC71** 670Nm  
**FC81** 1175Nm

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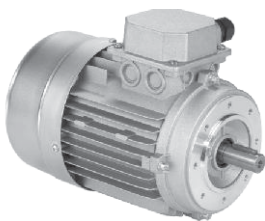
2 and 3 Stage



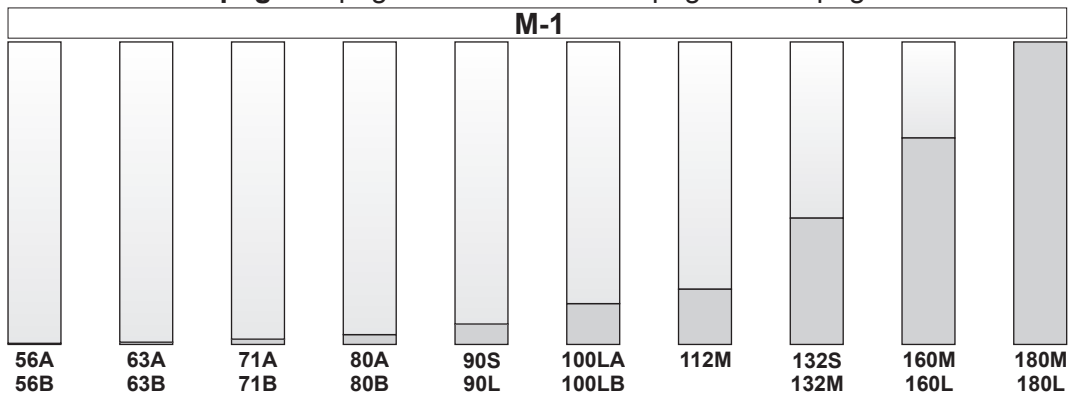
Types / Tipi /  
Tipen / Types /  
Tipos

**FA42** 320Nm  
**FA43** 320Nm  
**FA52** 490Nm  
**FA53** 510Nm  
**FC62** 675Nm  
**FC63** 675Nm  
**FC72** 900Nm  
**FC73** 900Nm  
**FC82** 2100Nm  
**FC83** 2100Nm

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



Types / Tipi /  
Tipen / Types /  
Tipos



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

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza - Grösse  
Taille - Tomaño

Mounting - Montaggio  
Montage - Fixation  
Tipo de montaje

Rapporto - Ratio  
Untersetzung  
Reduction - Relacion

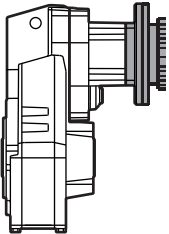
**M**

**FA42**

**C**

**10.04**

Shaft mounted helical  
Riduttori ad assi paralleli



With IEC motor

**M**

- 1 Stage  
Riduzione  
Stufe  
Trains  
Etapas
- 2 Stages  
Riduzioni  
Stufen  
Trains  
Etapas
- 3 Stages  
Riduzioni  
Stufen  
Trains  
Etapas

Aluminum/Alluminio/Aluminium/Aluminio

**FS10**

**FS20**

**FA41**

**FA42**  
**FA52**

**FA43**  
**FA53**

**FS50**

Cast Iron/Ghisa/Grauguss/Fonte/Fundicion

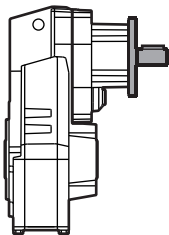
**FC61**  
**FC71**  
**FC81**

**FC62**  
**FC72**  
**FC82**

**FC63**  
**FC73**  
**FC83**

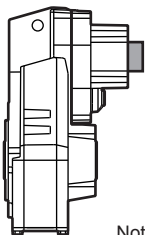
With motor flange

**P**



With male input shaft

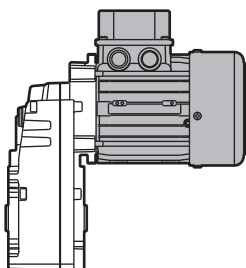
**R**



Modular base

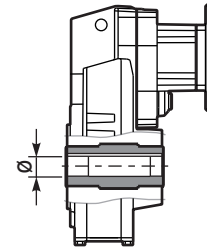
**B**

Not available for:  
FC61, FC71,  
FC81, FC82.



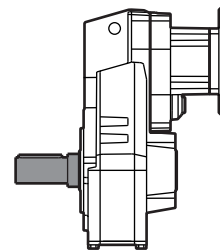
ONLY FOR F10  
Compact motor

**C**



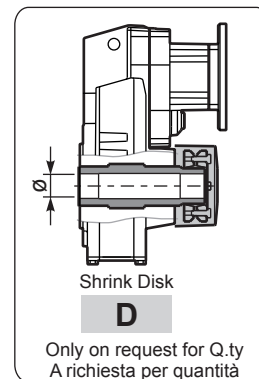
Hollow output shaft

**C**



Single output shaft

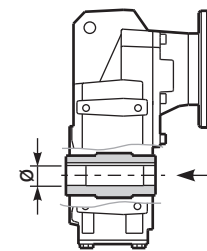
**A**



Shrink Disk

**D**

Only on request for Q.ty  
A richiesta per quantità

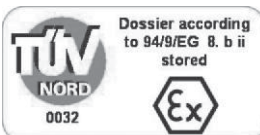


Stainless steel hub

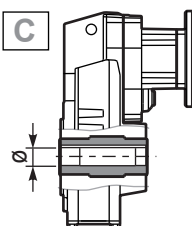
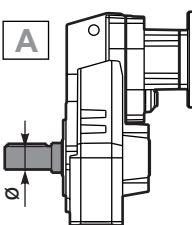
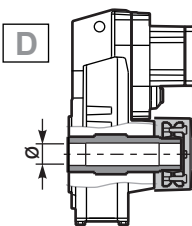
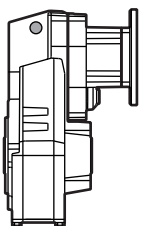
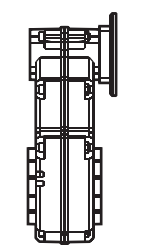
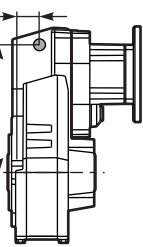
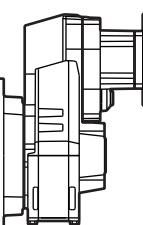
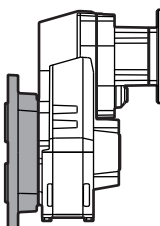







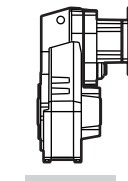
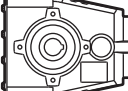
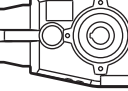
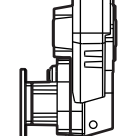
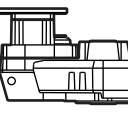
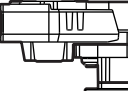
**I**

On request for q.ty

Stainless steel hub  
Mozzo in acciaio Inox  
Edelstahlhohlwelle  
Moyeu en acier Inox  
Nucleo corona de  
acero Inox



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.

Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida	Type - Tipo - Typ Types - Tipo	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte à bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje
<p><b>-D</b></p>  <p><b>STANDARD</b> Only on request for Q.ty A richiesta per quantità</p> <p>FS10</p> <p><b>-J</b> → Ø17</p> <p>FS20</p> <p><b>-B</b> → Ø20</p> <p>FA41 FA42 FA43 FS50</p> <p><b>-D</b> → Ø30</p> <p><b>-E</b> → Ø35</p> <p>FA52 FA53 FC61 FC62 FC63</p> <p><b>-E</b> → Ø35</p> <p><b>-F</b> → Ø40</p> <p>FC71 FC72 FC73</p> <p><b>-F</b> → Ø40</p> <p><b>-G</b> → Ø45</p> <p>FC81 FC82 FC83</p> <p><b>-H</b> → Ø50</p> <p><b>-I</b> → Ø55</p> <p><b>A</b></p>  <p>Single output shaft</p> <p><b>-M</b> FA41/2/3 → Ø30</p> <p><b>-N</b> FA52/3 FC61/2/3 → Ø35</p> <p><b>-O</b> FC71/2/3 → Ø40</p> <p><b>-K</b> FC81/2/3 → Ø50</p> <p><b>D</b></p>  <p>Shrink disk</p> <p><b>-Q</b> FA42/3 → Ø30</p> <p><b>-T</b> FA52/3 FC62/3 → Ø35</p> <p><b>-U</b> FC72/3 → Ø40</p> <p><b>-V</b> FC82/3 → Ø50</p>	<p><b>ST</b></p>  <p><b>ST</b></p> <p>Foro standard Standard bore</p>  <p>only for FS10 / FS20</p> <p><b>ST</b></p> <p>Senza braccio di reazione Without reaction arm</p>  <p>Available torque arms, see our web site. Bracci di reazione disponibili, vedi il nostro sito web.</p> <p><b>S..</b></p>  <p><b>-F</b></p> <p>Whit output flange con flangia uscita</p>	<p><b>N</b></p>  <p><b>N</b> Senza flangia Without flange</p> <p>FS20</p> <p><b>1</b> → Ø140</p> <p>FA41 FA42 FA43</p> <p><b>2</b> → Ø160</p> <p><b>3</b> → Ø200</p> <p><b>4</b> → Ø250</p> <p>FA52 FA53 FC61 FC62 FC63</p> <p><b>4</b> → Ø250</p> <p><b>5</b> → Ø300</p> <p>FC71 FC72 FC73</p> <p><b>4</b> → Ø250</p> <p><b>5</b> → Ø300</p> <p><b>6</b> → Ø350</p> <p>FC81 FC82 FC83</p> <p><b>5</b> → Ø300</p> <p><b>6</b> → Ø350</p> <p><b>7</b> → Ø400</p>	<p><b>-C</b></p> <p>Flange Flangia</p>  <p><b>B5</b></p> <p><b>-A</b>=56 (Ø120)</p> <p><b>-B</b>=63 (Ø140)</p> <p><b>-C</b>=71 (Ø160)</p> <p><b>-D</b>=80 (Ø200)</p> <p><b>-E</b>=90 (Ø200)</p> <p><b>-F</b>=100+112 (Ø250)</p> <p><b>-G</b>=132 (Ø300)</p> <p><b>-H</b>=160 (Ø350)</p> <p><b>-I</b>=180 (Ø350)</p> <p><b>B14</b></p> <p><b>-O</b>=56 (Ø80)</p> <p><b>-P</b>=63 (Ø90)</p> <p><b>-Q</b>=71 (Ø105)</p> <p><b>-R</b>=80 (Ø120)</p> <p><b>-T</b>=90 (Ø140)</p> <p><b>-U</b>=100+112 (Ø160)</p> <p><b>-V</b>=132 (Ø200)</p> <p><b>COMPACT</b></p> <p><b>CZ</b> = 56</p> <p><b>C0</b> = 63</p> <p>Type R Tipo R</p>  <p>FA43 FS10 FS20 FS50</p> <p><b>-1</b> → Ø14</p> <p>FA42 FA53 FC63 FC73</p> <p><b>-2</b> → Ø19</p> <p>FA52 FC62 FC72 FC83</p> <p><b>-3</b> → Ø24</p> <p>FC82</p> <p><b>-4</b> → Ø28</p> <p>Without flange Senza flangia</p>  <p>FA43 FS10 FS20 FS50</p> <p><b>-Z</b> → Ø9 (56B5)</p> <p><b>-0</b> → Ø11 (63B5)</p> <p><b>-1</b> → Ø14 (71B5)</p> <p>FA42 FA53 FC63 FC73</p> <p><b>-1</b> → Ø14 (71B5)</p> <p><b>-2</b> → Ø19 (80B5)</p> <p><b>-3</b> → Ø24 (90B5)</p> <p>FA52 FC62 FC72 FC83</p> <p><b>-2</b> → Ø19 (80B5)</p> <p><b>-3</b> → Ø24 (90B5)</p> <p><b>-4</b> → Ø28 (100B5)</p> <p>FA41</p> <p><b>-4</b> → Ø28 (100B5)</p>	<p><b>B</b></p>  <p><b>A</b></p>  <p><b>B</b></p> <p><b>STANDARD</b></p>  <p><b>C</b></p>  <p><b>D</b></p>	<p><b>H1</b></p>  <p><b>H1</b></p> <p><b>STANDARD</b></p>  <p><b>H4</b></p>  <p><b>H3</b></p>  <p><b>H2</b></p>  <p><b>H5</b></p>  <p><b>H6</b></p> <p><b>Specify only for vertical positions</b> Specificare solo per posizione verticale</p>

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotacion

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

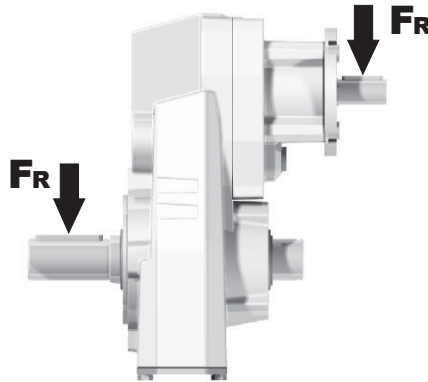
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

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



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

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

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

**B**

Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Poissance nominale  
Potencia nominal

**A**

Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

# FA42

**Compact-Gear**  
**320Nm**

Rating - Aluminum  
**SHAFT MOUNTED HELICAL**

QUICK SELECTION / Selezione veloce							input speed (n <sub>1</sub> ) = 1400 min <sup>-1</sup>											
Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft		
							-B	-C	-D	-E	-F	-Q	-R	-T	-U			Ratio code
167	<b>8.38</b>	4	215	1.0	4.1	225	B					C	C			2821		01
139	<b>10.04</b>	3	194	1.2	3.7	240	B					C	C			2818		02
114	<b>12.33</b>	3	238	1.1	3.2	260	B					C	C			2813		03
92	<b>15.16</b>	2.2	216	1.2	2.6	260	B					C	C			1921		04

**C**

Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

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

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

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)