

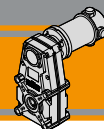


Neodymium

Motoriduttori CC pendolari  
**DC helical parallel gearmotors**





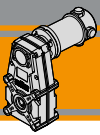


<b>Indice</b>	<b>Index</b>	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	<b>E2</b>
Designazione	<i>Classification</i>	<b>E2</b>
Sensi di rotazione	<i>Direction of rotation</i>	<b>E3</b>
Simbologia	<i>Symbols</i>	<b>E3</b>
Lubrificazione	<i>Lubrication</i>	<b>E3</b>
Carichi radiali	<i>Radial loads</i>	<b>E4</b>
Dati tecnici	<i>Technical data</i>	<b>E5</b>
Motori applicabili	<i>Motor adapters</i>	<b>E5</b>
Dimensioni	<i>Dimensions</i>	<b>E6</b>

NDFT

Questa sezione annulla e sostituisce ogni precedente edizione o revisione. Qualora questa sezione non Vi sia giunta in distribuzione controllata, l'aggiornamento dei dati ivi contenuto non è assicurato. **In tal caso la versione più aggiornata è disponibile sul nostro sito internet [www.transtecno.com](http://www.transtecno.com)**

*This section replaces any previous edition and revision. If you obtained this catalogue other than through controlled distribution channels, the most up to date content is not guaranteed. In this case the latest version is available on our web site [www.transtecno.com](http://www.transtecno.com)*



# NDFT Motoriduttori CC pendolari DC Helical parallel gearmotors

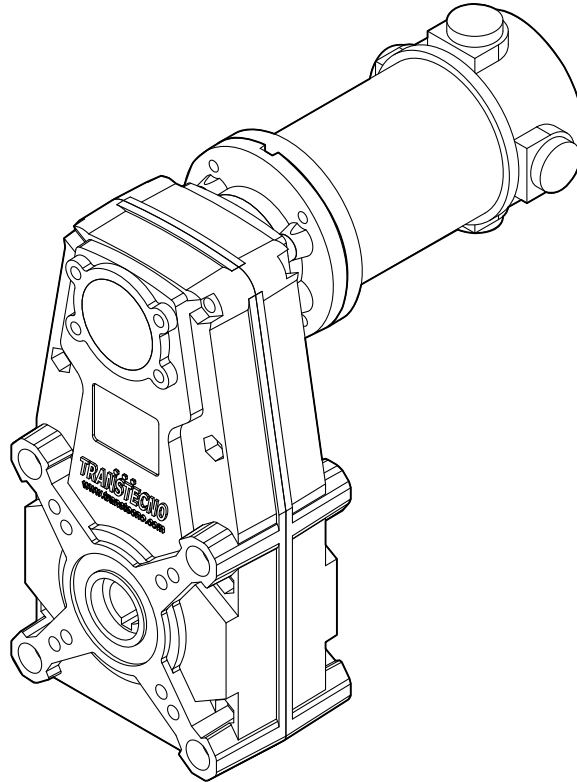
## Caratteristiche tecniche

## Technical features

I motoriduttori CC pendolari a magneti permanenti in neodimio NDFT hanno le seguenti caratteristiche principali:

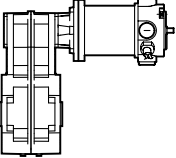
NDFT neodymium permanent magnets DC helical parallel gearmotors range has the following main features:

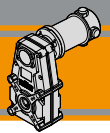
- Alimentazione in bassa tensione 12/24 Vcc
  - Possibilità di montaggio encoder e freno
  - Potenze motore disponibili da 160 a 250W S2
  - Magneti in Neodimio
  - Carcasse dei riduttori in pressofusione di alluminio
  - Lubrificazione permanente con olio sintetico
  - Ingranaggi cilindrici a denti elicoidali.
- Low voltage power supply 12/24 Vdc
  - Suitable for encoder and brake assembly
  - Motor power ratings available from 160 to 250W S2
  - Neodymium magnets
  - Die-cast aluminum housing
  - Permanent synthetic oil long-life lubrication
  - helical gears.



## Designazione

## Classification

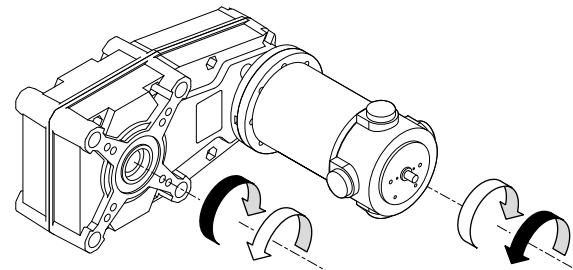
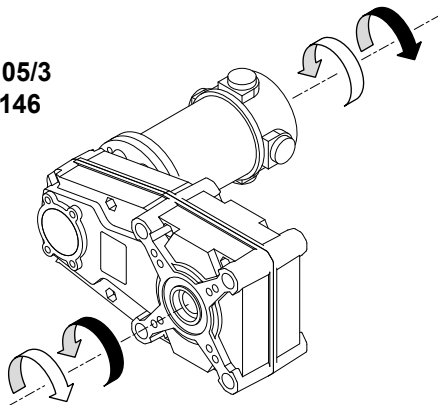
MOTORIDUTTORE / GEARMOTOR						
NDFT	120/146		U	60.63	O20	240
Tipo Type	Grandezza Size		Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Versione Motore Motor Version
NDFT 	120/105/3 120/105/4 120/146	180/105/3 180/146	U...	Vedere tabella See tables	Vedere tabella See tables	120  240



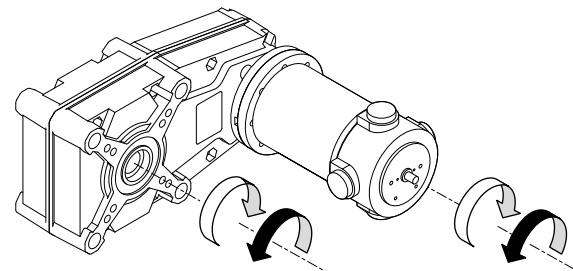
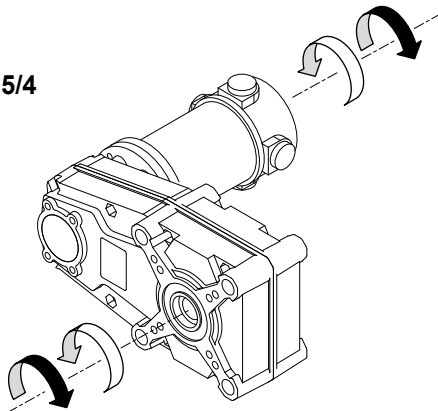
Sensi di rotazione

Direction of rotation

FT105/3  
FT146



FT105/4



NDFT

Simbologia

Symbols

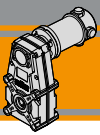
$n_1$	[min <sup>-1</sup> ]	Velocità in ingresso / <i>Input speed</i>
$n_2$	[min <sup>-1</sup> ]	Velocità in uscita / <i>Output speed</i>
$i$		Rapporto di riduzione / <i>Ratio</i>
$P_1$	[kW]	Potenza in entrata / <i>Input power</i>
$M_2$	[Nm]	Coppia nominale in uscita in funzione di $P_1$ / <i>Output torque referred to <math>P_1</math></i>
$P_{n1}$	[kW]	Potenza nominale in entrata / <i>Nominal input power</i>
$M_{n2}$	[Nm]	Coppia nominale in uscita in funzione di $P_{n1}$ / <i>Nominal output torque referred to <math>P_{n1}</math></i>
$sf$		Fattore di servizio / <i>Service factor</i>
$R_2$	[N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
$A_2$	[N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>

Lubrificazione

Lubrication

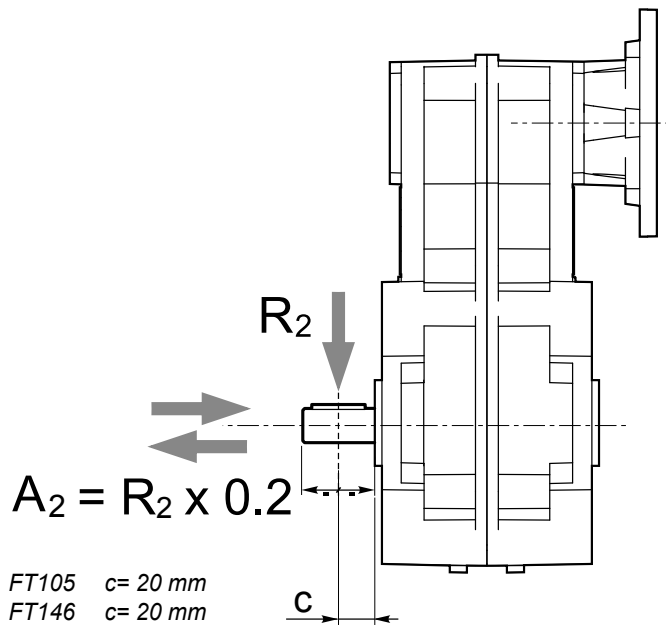
Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication ( viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.



**Carichi radiali**

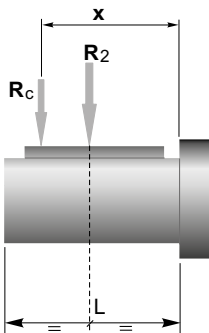
**Radial loads**



$n_2$ [min <sup>-1</sup> ]	$R_2$ [N]	
	FT105	FT146
70	1500	2500
40	1700	2700
30	1850	2850
20	2000	3000
10	2000	3000
5	2000	3000

Quando il carico radiale risultante non è applicato sulla mezza-  
ria dell'albero occorre calcolare quello effettivo con la seguente  
formula:

When the resulting radial load is not applied on the centre line  
of the shaft it is necessary to calculate the effective load with the  
following formula:

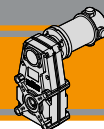


	FT105	FT146
<b>a</b>	82	82,5
<b>b</b>	62	62,5
<b>R<sub>2MAX</sub></b>	2000	3000

$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$



$$R \leq R_c$$

*a, b = valori riportati nella tabella*  
*a, b = values given in the table*



**Dati tecnici**

**Technical data**

$P_1$ [W]	$n_2$ [min <sup>-1</sup> ]	$M_2$ [Nm]	sf	i		Versione motore Motor version	$P_1$ [W]	$n_2$ [min <sup>-1</sup> ]	$M_2$ [Nm]	sf	i		Versione motore Motor version		
<b>160</b>							<b>250</b>								
(3000 min <sup>-1</sup> )	<b>146</b>	10	3.2	20.57	<b>120/105/3</b>	120/240	(3000 min <sup>-1</sup> )	<b>146</b>	15	2.0	20.57	<b>180/105/3</b>	120/240		
	<b>90</b>	16	2.4	33.32				<b>90</b>	25	1.6	33.32				
	<b>68</b>	21	2.4	44.36				<b>68</b>	33	1.5	44.36				
	<b>55</b>	26	1.9	54.87				<b>55</b>	41	1.2	54.87				
	<b>42</b>	34	1.5	71.84				<b>42</b>	54	0.9	71.84				
	<b>39</b>	37	1.4	77.07				<b>39</b>	58	0.9	77.07				
	<b>34</b>	43	1.2	88.87				<b>34</b>	66	0.8	88.87				
	<b>24</b>	60	0.8	124.81											
	<b>17</b>	86	0.6	181.35				<b>160</b>	14	4.4	18.75			<b>180/146</b>	120/240
	<b>13</b>	86	0.6	224.32				<b>115</b>	20	3.2	26.17				
	<b>9.5</b>	86	0.6	315.05		<b>106</b>	21	3.0	28.26						
						<b>86</b>	26	3.0	35.07						
	<b>8.1</b>	86	0.6	368.19	<b>120/105/4</b>	120/240	<b>76</b>	30	2.6	39.44					
	<b>5.6</b>	86	0.6	534.98				<b>65</b>	35	2.2	46.44				
	<b>4.5</b>	86	0.6	661.76				<b>57</b>	40	2.0	52.86				
	<b>3.2</b>	86	0.6	929.40				<b>49</b>	45	1.9	60.63				
	<b>160</b>	9	7.0	18.75	<b>120/146</b>	120/240	<b>43</b>	52	1.6	70.00					
	<b>115</b>	13	5.0	26.17				<b>35</b>	63	1.4	84.63				
	<b>106</b>	14	4.6	28.26				<b>31</b>	72	1.2	95.61				
	<b>86</b>	17	4.6	35.07				<b>26</b>	85	1.0	113.40				
	<b>76</b>	19	4.1	39.44				<b>22</b>	100	0.9	133.45				
	<b>65</b>	22	3.5	46.44				<b>20</b>	112	0.8	150.18				
	<b>57</b>	25	3.1	52.86				<b>19</b>	120	0.8	160.43				
	<b>49</b>	29	3.0	60.63				<b>17</b>	134	0.7	178.83				
	<b>43</b>	34	2.6	70.00											
	<b>35</b>	41	2.1	84.63											
	<b>31</b>	46	1.9	95.61											
	<b>26</b>	54	1.6	113.40											
	<b>22</b>	64	1.3	133.45											
	<b>20</b>	72	1.2	150.18											
	<b>19</b>	77	1.2	160.43											
	<b>17</b>	86	1.1	178.83											
	<b>13</b>	107	0.9	223.92											
	<b>13</b>	113	0.8	236.83											
	<b>10</b>	134	0.7	300.07											
	<b>7.5</b>	134	0.7	397.38											

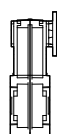
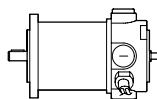
N.B.  
Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio

N.B.  
Please check that the output torque M2 does not exceed the value in the grey areas

**NDFT**

**Motori applicabili**

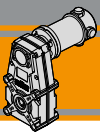
**Motor adapters**



		ND	
		120.120 120.240	180.120 180.240
FT	<b>105/3</b>	20.57 - 315.05	20.57 - 315.05
	<b>105/4</b>	368.19 - 929.4	368.19 - 929.4
	<b>146</b>	18.75 - 397.38	18.75 - 397.38

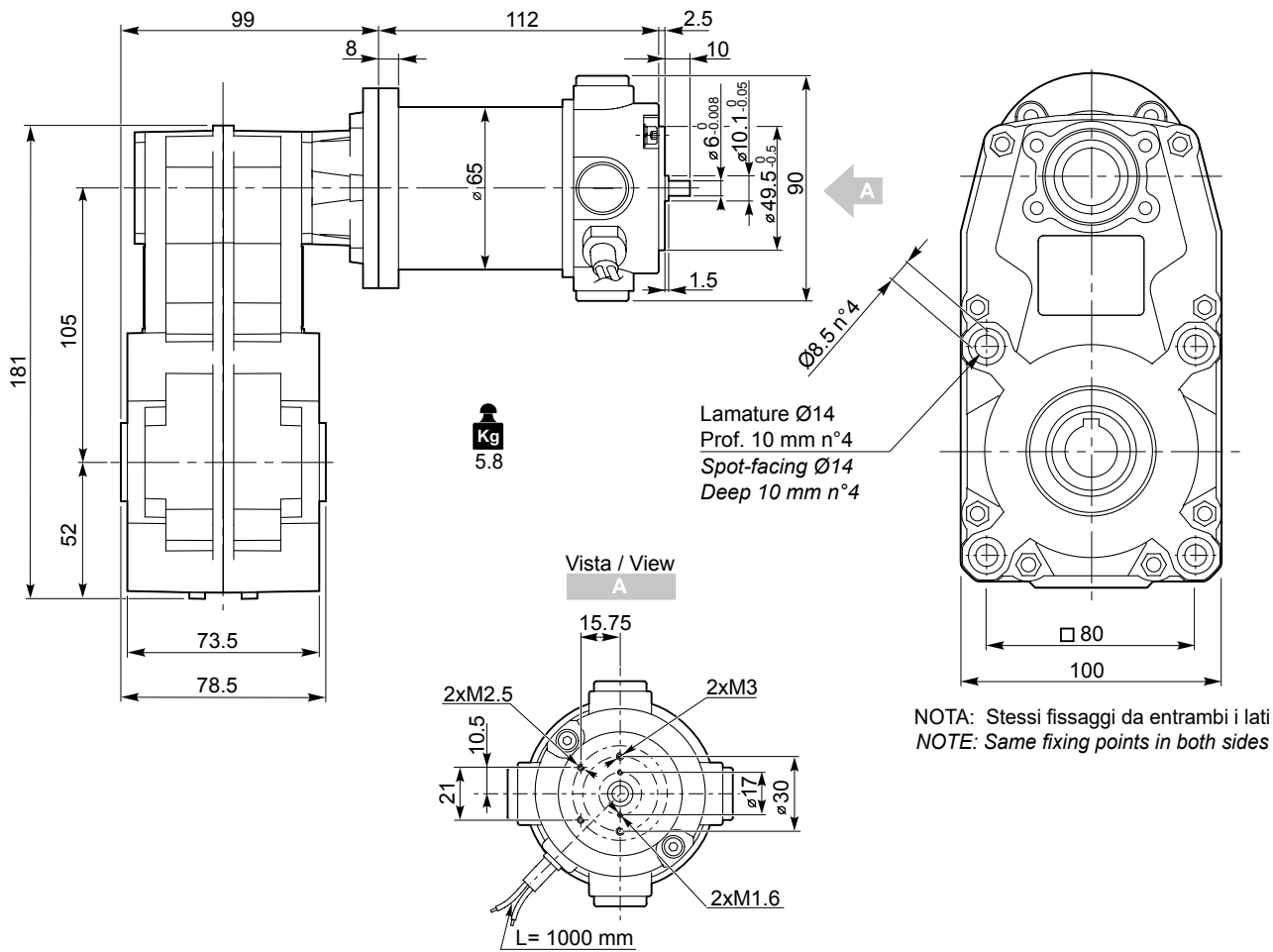
18.75 - 397.38

Rapporti di riduzione i  
Ratio i

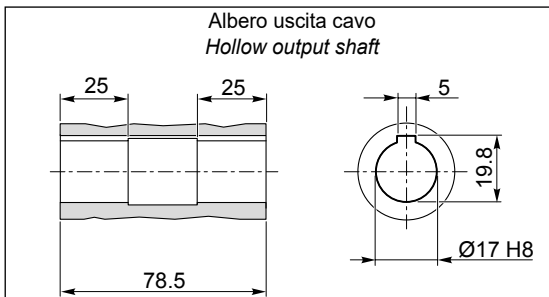


**NDFT 120/105**

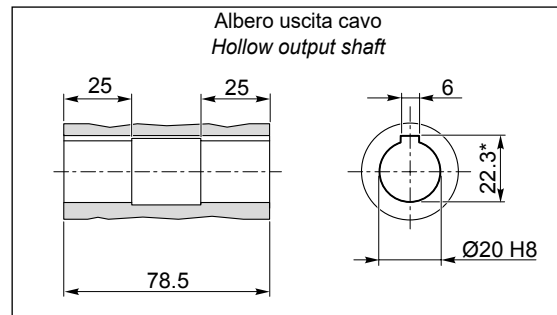
**NDFT 120/105...U**



**O17**



**O20**



\*: Sede linguetta ribassata / Special keyway

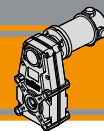
Freno / Brake



Encoder





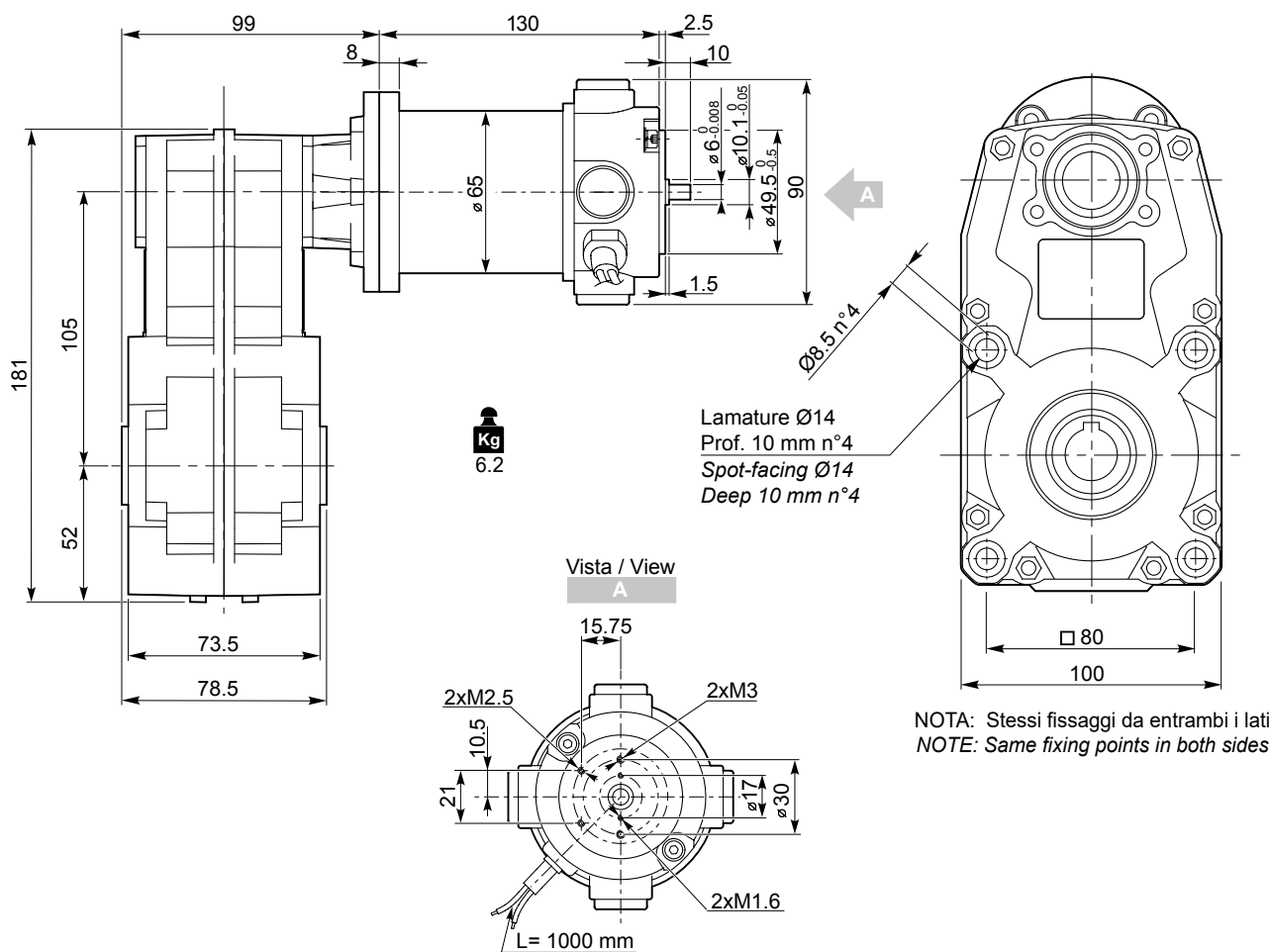


Dimensioni

Dimensions

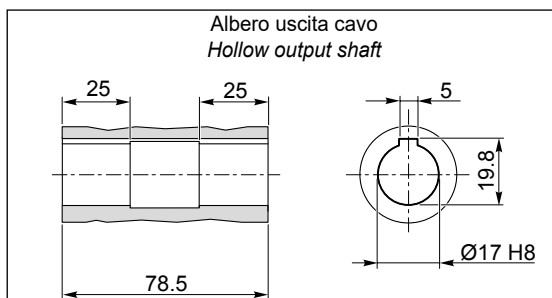
**NDFT 180/105**

**NDFT 180/105...U**

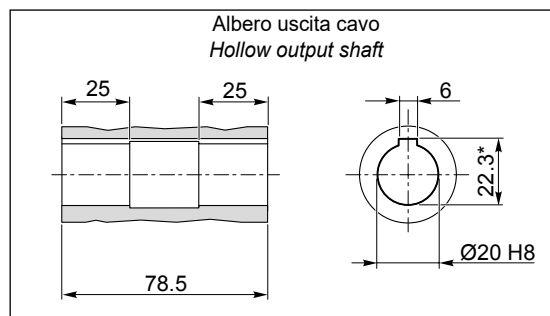


**NDFT**

**O17**



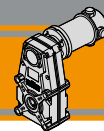
**O20**



\*: Sede linguetta ribassata / Special keyway

- Freno / Brake → B9
- Encoder → B9



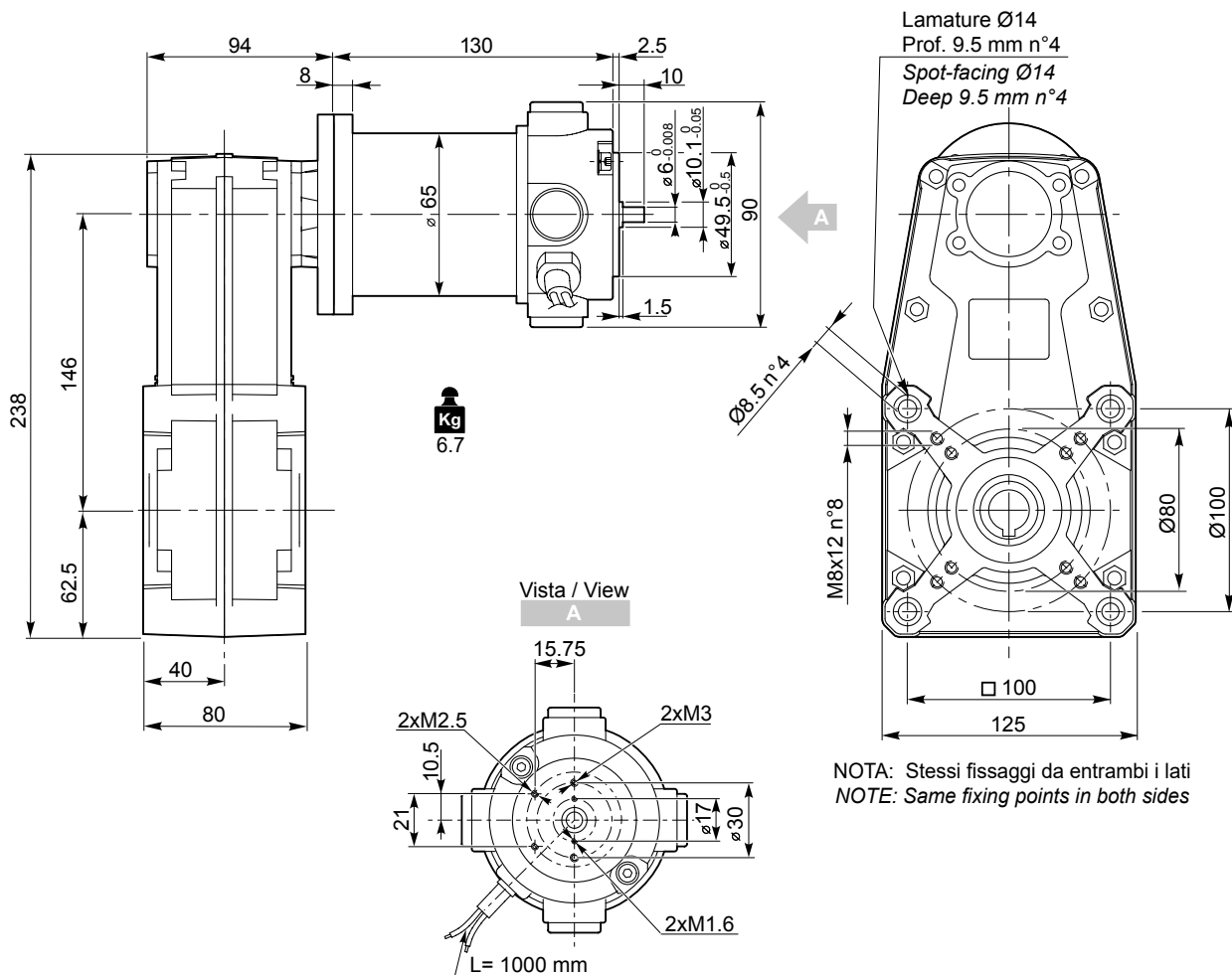


Dimensioni

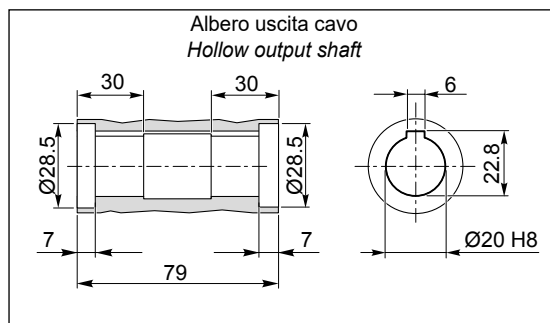
Dimensions

**NDFT 180/146**

**NDFT 180/146...U**



**O20**



Freno / Brake

B9

Encoder

B9





**MA TRANSTECNO S.A.P.I. DE C.V.**  
 Av. Mundial # 176, Parque Industrial  
 JM Apodaca, Nuevo León,  
 C.P. 66600  
 MÉXICO  
 T +52 8113340920  
 info@transtecno.com.mx  
 www.transtecno.com.mx



**TRANSTECNO SRL**  
 Via Caduti di Sabbiano, 11/D-E  
 40011 Anzola dell'Emilia (BO)  
 ITALY  
 T+39 051 64 25 811  
 F +39 051 73 49 43  
 sales@transtecno.com  
 www.transtecno.com



**HANGZHOU TRANSTECNO POWER TRANSMISSIONS CO LTD**  
 No.4 Xiuyan Road Fengdu Industry Zone  
 Pingyao Town Yuhang District  
 Hangzhou City, Zhejiang Province  
 311115 – CHINA  
 T +86 571 86 92 02 60  
 F +86 571 86 92 18 10  
 info-china@transtecno.com  
 www.transtecno.cn



**TRANSTECNO U.S.A. LLC**  
 5440 S.W. 156th Place Miami,  
 FL 33185 - USA  
 Tel: +1 (305) 220-4423  
 Fax: +1 (305) 220-5945  
 usaoffice@transtecno.com



**TRANSTECNO B.V.**  
 Ind. terrein Wieken/Vinkenhof  
 De Stuwdam,43  
 3815 KM Amersfoort - NETHERLANDS  
 Tel: +31(0) 33 45 19 505  
 Fax: +31(0) 33 45 19 506  
 info@transtecno.nl  
 www.transtecno.nl



**SALES OFFICE INDIA**  
 A/10, Anagha, S.N. Road, Mulund (W) Mumbai  
 400080 - INDIA  
 Tel: +91 9820614698  
 Fax-Italy: +39 051 73 49 43  
 indiaoffice@transtecno.com



**SALES OFFICE BRAZIL**  
 Rua Dr. Freire Alemão 155 / 402 - CEP. 90450-060  
 Auxiliadora Porto Alegre RS - BRAZIL  
 Tel: +55 51 3251 5447  
 Fax: +55 51 3251 5447  
 Mobile: +55 51 811 45 962  
 braziloffice@transtecno.com  
 www.transtecno.com.br



**TRANSTECNO AANDRIJFTECHNIEK B.V.**  
 De Stuwdam 43  
 3815 KM Amersfoort - NETHERLANDS  
 Tel: +31 (0) 33 20 4 7 006  
 info@transtecnoaandrijftechnik.nl  
 www.transtecnoaandrijftechnik.nl



**SALES OFFICE SOUTH KOREA**  
 D-304 Songdo BRC Smart Valley 30, Songdomirae-ro,  
 Yeonsu-gu, Incheon, 406-840 - KOREA  
 Tel: +82 70 8288 2107  
 Fax: +82 32 815 2107  
 Mobile: +82 10 5094 2107  
 koreaoffice@transtecno.com



**TRANSTECNO IBÉRICA  
 THE MODULAR GEARMOTOR, S.A.**  
 C/Enginy, 2 Nave 6 - 08850 Gavà (Barcelona) - SPAIN  
 Tel: +34 931 598 950  
 info@transtecno.es  
 www.transtecno.es



**SALES OFFICE OCEANIA**  
 44 Northview drive, Sunshine west 3020  
 Victoria - AUSTRALIA  
 Ph +61 03 9312 4722  
 Fax +61 03 9312 4714  
 Mobile: +61 0438060997  
 oceaniaoffice@transtecno.com  
 www.transtecno.com.au



**SALES OFFICE FRANCE**  
 Tel: +33 (0) 6 85 12 09 87  
 Fax-Italy: +39 051 73 49 43  
 franceoffice@transtecno.com  
 www.transtecno.fr

  
**TRANSTECNO**<sup>®</sup>  
 the modular gearmotor  
 www.transtecno.com