

**VARVEL**<sup>®</sup>  
MOTION CONTROL SINCE 1955

technology made in Italy



GB

**XA**



\* VS made in China

## Technology Made in Italy

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Since 1955 Varvel has been making speed reducers and variators for light industry applications. Reliable partner in power transmission equipment offers also customized solutions always according to a socially responsible company values. Modularity and flexibility lead Varvel products by a unique kit form, common to all gearbox series. This feature allows distributors an easier job to set up required products in few minutes.



# XA

## ONE STAGE HELICAL GEARBOXES

Attachment for worm boxes Series RS and RT



# One stage helical gearboxes XA

## Description

The helical gearboxes series XA are manufactured with aluminium die cast housing and covers, helical gears in alloy steel, case hardened, tempered and shaved.

Gears - designed and verified according to ISO 6336 and DIN 3990 - and bearings are calculated for at least 15,000 running hour average lifetime.

Keyways according to DIN 6884.

The gearboxes are delivered filled with synthetic long-life oil (without plugs) and in the appropriate quantity to install them in any mounting position without prior specification.

### DESIGNATION

<b>F</b>	<b>XA</b>	<b>71</b>	<b>3,1</b>	<b>IEC71</b>	<b>B14</b>
					Motor mounting
					IEC motor size
					Reduction ratio
					Gearbox size
F = with input IEC flange					
S = without input IEC flange					
M = geared motor					

kW	XA	rpm	ir =	Nm	SF	kg	kW	XA	rpm	ir =	Nm	SF	kg	kW	XA	rpm	ir =	Nm	SF	kg
0,06	63	397	3,53	1,4	>3	3,9	0,55	80	411	3,42	13	>3	13	1,8	80	411	3,42	41	1,7	20
		226	6,18	2,5	>3	3,9			219	6,40	24	2,8	13			219	6,40	77	0,8	20
		180	7,77	3,1	2,9	3,9			169	8,30	31	2,0	13			169	8,30	100	0,7	20
0,09	63	397	3,53	2,1	>3	4,0	0,75	80	411	3,42	17	>3	14	100	100	361	3,88	46	>3	23
		226	6,18	3,7	2,7	4,0			219	6,40	32	2,0	14			225	6,23	77	2,5	23
		180	7,77	4,7	1,9	4,0			169	8,30	42	1,4	14			167	7,55	100	1,8	23
0,12	63	397	3,53	2,8	>3	5,2	1,1	80	411	3,42	25	2,7	16	2,2	100	361	3,88	57	>3	26
		226	6,18	5,0	2,0	5,2			219	6,40	47	1,4	16			225	6,23	92	1,7	26
		180	7,77	6,2	1,4	5,2			169	8,30	61	1,0	16			167	8,40	124	1,1	26
0,18	63	397	3,53	4,2	2,8	5,8	100	100	361	3,88	29	>3	19	3	100	361	3,88	80	2,9	28
		226	6,18	7,4	1,3	5,8			225	6,23	47	>3	19			225	6,23	125	1,3	28
		180	7,77	9,3	1,0	5,8			167	7,55	70	2,2	19			167	7,55	169	0,8	28
0,25	71	397	3,53	6	>3	8,0	1,5	80	411	3,42	34	2,0	18	4	100	361	3,88	102	2,3	36
		220	6,40	11	2,1	8,0			219	6,40	64	1,0	18			225	6,23	163	1,0	36
		175	8,00	13	1,5	8,0			169	8,30	83	0,7	18			167	7,55	210	0,7	36
0,37	71	397	3,53	9	3,0	8,4	100	100	361	3,88	39	>3	20							
		220	6,40	16	1,4	8,4			225	6,23	64	2,6	20							
		175	8,00	20	1,0	8,4			167	7,55	84	1,6	20							

Input speed: 1400 rpm

- ir = gearbox real reduction ratio

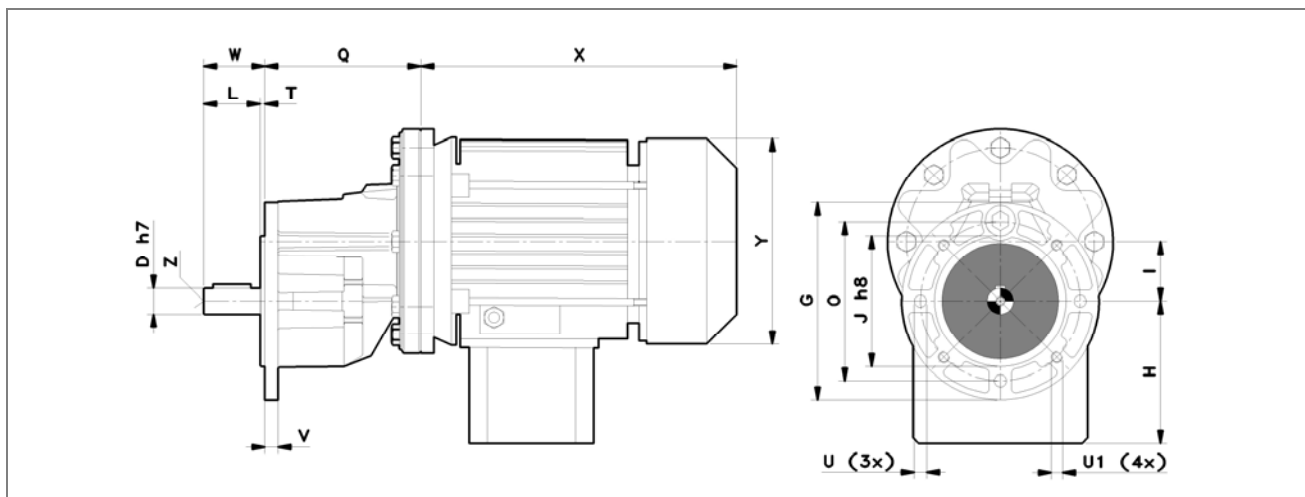
# One stage helical gearboxes XA

## Dimensions

### MOTOR SIZES

	IEC	56	63	71	80	90	100/112
<b>FXA63</b>	i = 3,5 - 6,2 - 7,8	B5 & B14	B5 & B14	---	---	---	---
<b>FXA71</b>	i = 3,5 - 6,4 - 8,0	---	---	B5 & B14	---	---	---
<b>FXA80</b>	i = 3,4 - 6,4 - 8,3	---	---	---	B5 & B14	B5 & B14	---
<b>FXA100</b>	i = 3,9 - 6,2 - 7,5	---	---	---	---	B5 & B14	B5 & B14

### DIMENSIONS



	D <sub>h7</sub>	G	I	J <sub>h8</sub>	L	O	Q	U	U <sub>1</sub>	T	V	W	Z
<b>FXA63</b>	14 (11*)	105	32	70	30	85	83	6,5	M6	2,5	7,0	32,5	M5 x 12,5 (M4 x 11)*
<b>FXA71</b>	19	120	40	80	40	100	90	6,5	M6	2,5	7,5	42,5	M8 x 19
<b>FXA80</b>	24 (28*)	140	50	95	49,5	115	114	9	M8	2,5	10,5	52	M8 x 19 (M10 x 22)*
<b>FXA100</b>	28	200	63	130	57,5	165	177	10,5	10,5	2,5	12	60	M10 x 22

(\* ) on demand

	IEC56	IEC63	IEC71	IEC80	IEC90	IEC100/112
Ø B14	80	90	105	120	140	160
Ø B5	120	140	160	200	200	250
H	108	110	121	138	149	160
X	168	185	215	238	255 / 280	309
Y	110	123	140	159	176	195

Non binding dimensions, for reference only

# One stage helical gearboxes XA

## Abstract of OPERATION AND MAINTENANCE INSTRUCTIONS

Variable speed and reduction gearboxes are not part of the field of application of the Machinery Directive, art.1(2), and they must not be put into service until the machinery into which they are to be incorporated, has been declared in conformity with the provision of art. 4(2), annex II(B) of Machinery Directives 98/37/CEE/22.6.98 and for Italy only, of DL 459/24.7.96.

### **Installation**

Check if the unit to be installed, is properly selected to perform the required function and that its mounting position complies with the order.

The nameplate reports such information.

Check mounting stability to ensure the unit runs without vibrations or overloads.

### **Running**

The unit may be connected for clockwise or counter-clockwise rotation.

The unit must be stopped as soon as defective running or unexpected noise occur, remove the faulty part or return the unit to the factory for checking.

If the faulty part is not replaced, other parts can also be affected, causing more severe damage and making the identification of initial cause more difficult.

### **Maintenance**

Although the units are no-load run tested in the factory before despatch, it is recommended not to run them at maximum load for the first 20-30 running hours to allow the proper running in.

The gearboxes are delivered already filled with long-life synthetic oil and, in case of replacement or topping, do not mix with mineral lubricants.

### **Handling**

When hoisting, use relevant housing locations or eyebolts if provided, or foot or flange holes.

Never hoist on any moving part.

### **Painting**

Carefully protect oil seals, coupling faces and shafts when units are re-painted.

### **Long-term storage**

For storage longer than three months, apply anti-oxidants onto shafts and machined surfaces, and protective grease on oil seal lips.

### **Product's Environmental Management**

In conformity with Environmental Certification ISO 14001, we recommend the following to dispose of our products:

- scraped components of the units to be delivered to authorized centres for metal object collection;
- oils and lubricants drained from the units to be delivered to Exhausted Oil Unions;
- packages (pallets, carton boxes, paper, plastic, etc.) to lead into regeneration/recycling circuits as far as possible, by delivering separate waste classes to authorized companies.

(complete manual on [www.varvel.com](http://www.varvel.com))



## A socially responsible company

To the scope of intensifying our commitment to society, Varvel since 2004 started an ongoing support programme with three non-profit institutions: UNICEF (United Nations Children's Fund), MSF (Médecins sans Frontières) and ANT (National Cancer Association). Environmental respect and protection are also part of Varvel's values and this is why Varvel certified in 2001 its Environmental System to standard UNI EN ISO 14001.



**RN•RO•RV**



**RS•RT**



**RD**



**RG**



**VR•VS**



**ISM•BSM**



**VARfarm**  
by VARVEL



**VARVEL®**

MOTION CONTROL SINCE 1955

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