



1 - General safety information

This document contains **general safety information** relevant to the installation of gear reducers and gearmotors for **normal industrial environments**.

An incorrect installation, an improper use, the removing or disconnection of protection devices, the lack of inspections and maintenance, improper connections may cause severe personal injury or property damage. Therefore the component must be moved, installed, commissioned, handled, controlled, serviced and repaired **exclusively by responsible qualified personnel which will read and apply carefully all instructions contained in this document, as well as the ones attached to the shipment and the ones contained in the document called «Service Instructions»** (download it from www.rossi-group.com; consult Rossi S.p.A., if need be). The responsible personnel must be **specifically trained** and have the experience necessary to **understand all risks and potential dangerous** (electrical or mechanical) situations connected with our products, such as:

- electric voltage;
- temperature higher than 50 °C;
- presence of rotating pieces during the running;
- presence of suspended loads;
- presence of eventual high sound level (> 85 dB(A)).

It is recommended to be equipped with appropriate personale protective equipment (PPE) and to pay attention to **all instructions of present handbook, all existing safety laws and standards concerning correct installation in order to assure personal safety and to avoid any heavy damages to the machine or to the system.**

Attention! Additional protection and safety measures, if necessary, must be adopted and assured by the personnel responsible for the installation.

Attention! Whenever personal injury or property damage may occur, foresee adequate supplementary protection devices against:

- release or breakage of fastening screws;
- rotation or unthreading of the gear reducer from shaft end of driven machine following to accidental breakage of the reaction arrangement;
- accidental breakage of shaft end of driven machine.

Attention! Components in non-standard design or with special executions or with constructive variations may differ in the details from the ones described here following and may require additional information.

Attention! When operating on gear reducer or on components connected to it the **machine must be at rest and cold**: disconnect motor (including auxiliary equipments) from power supply, gear reducer from load, be sure that safety systems are on against any accidental starting and, if necessary, pre-arrange mechanical locking devices (to be removed before commissioning).

Attention! During the running the gear reducer can have **hot surfaces**; Always wait that the gear reducer or the gearmotor to cool before carrying out any operations.

IMPORTANT: gear reducers and gearmotors supplied by Rossi are **partly completed machinery** according to Machinery Directive 2006/42/EC and must be incorporated into machinery and **should not be commissioned before the machinery in which the components have been incorporated conforms to**:

- Machinery directive 2006/42/EC and subsequent updates; in particular, possible safety guards for shaft ends not being used and for eventually accessible fan cover passages (or other) are the Buyer's responsibility;
- **«Electromagnetic compatibility (EMC)» 2014/30/EU and subsequent updates.**

2 - Application conditions and use limits

Gear reducers are designed for industrial applications according to name plate data, when no vibrations, no nuclear radiations and important magnetic fields are present, with ambient temperature 0 + 40 °C, with air velocity ≥ 1.25 m/s, max altitude 1 000 m, and max relative humidity 80 %. In case of different ambient conditions, consult Rossi S.p.A.

Running conditions must not exceed the limits stated on the name plate and those of the documentation enclosed, if any.

3 - How supplied
Refer to "Operating Instructions" for the list of residual risks and the installation and maintenance instructions; download the instructions from www.rossi.com.

Do not commission gear reducers and gearmotors that are even slightly damaged or not suitable for the intended use: in this case consult Rossi.

Report any non-compliance to Rossi.

Nameplate. Every gear reducer is provided with a name plate containing main technical information relevant to operating and constructive specifications and defining, according to contractual agreements, order confirmation and further specific documentation, the application limits; the name plate must not be removed and must

be kept integral and readable. All name plate data must be specified on eventual spare part orders.

Lubricant. Unless otherwise stated, gear reducers sizes 32 ... 81 are supplied **filled** with lubricant whereas sizes 100 ... 631 are supplied **without** lubricant. All gear reducers are equipped with an **adhesive lubrication nameplate** (label).

4 - Lifting and handling

Make sure that the lifting equipment is suitable for the dimensions and total weight of gear reducer or gearmotor (gear reducer, motor, oil, etc.); refer to Rossi technical catalog, if need be.

Attention! For the mass stated on name plate remind that:

- it does not consider the lubricant mass;
- for the gearmotors the mass is always the same of **gearmotor without motor**, therefore consider also the mass of motor stated on relevant name plate in order to know the total mass.

For the lifting and handling of gear reducer (or gearmotor) use exclusively clearance or threaded holes present in the gear reducer housing feet, as **purely shown** in the figures below:

- presence of tension electrica;
- per i motoriduttori è sempre quella del **motoriduttore senza motore**, pertanto tenere conto anche della massa del motore indicata sulla specifica targa, per conoscere la massa dell'insieme.

Avoid unbalanced lifting (during the movement, inclination must not exceed max ±15° as to mounting position) and, if necessary, use additional belts to balance the weight. For the lifting:

- Do not use shaft ends.

- Do not use motor eyebolts, if any.

- Do not use front threads of shaft ends or any external pipes.

- Do not add supplementary loads to the gear reducer or gearmotor mass.

Attention! During the lifting and handling:

- wear the appropriate PPE;

- do not stand under the suspended loads;

- do not damage the gear reducer with an inadequate transport;

- keep the gear reducer filled with oil in the mounting position foreseen in the order.

5 - Installation and commissioning

During the installation and at the very first commissioning and starting, be sure that:

- the gear reducer is installed in the **mounting position** foreseen in the order and stated in the name plate;
- the fastening surface is rigid, flat and levelled and vibration free;

- the high and low speed shafts of gear reducer are properly aligned with the shafts of motor and of machine to be driven;

- the bolts and the fastening screws have the same dimensions of the type foreseen and correctly fastened;

- the gear reducer is **filled with oil up to level**, usually stated by the transparent plug; in case of gear reducer supplied WITHOUT OIL (see lubrication nameplate), the filling up to level is buyer's responsibility and has to be carried out with gear reducer at rest and with adequate lubricant (see lubrication nameplate);

- the filler plug is equipped with filter and valve (size ≥ 100);

- the eventual supplementary cooling units and/or forced lubrication are efficient and running;

- the eventual control devices (probes, reading tools, etc.) are connected and properly running;

- the direction of rotation corresponds to the required one; in presence of **backstop device** the direction of free rotation is given by an arrow close to the low speed shaft;

- the safety guards for the accessible rotating parts have been mounted;

- the adhesive pictogram attached to the document, which identifies the risk associated with hot surfaces, has been affixed to the surface of the gear unit in a position visible to personnel involved in machine operation and maintenance operations;

- the correct earthing of the gear unit has been carried out, where applicable;

- the gear reducer (or the gearmotor) is protected against the direct radiation, extremes of weather and is positioned far away from external heat sources.

No modification of gear reducer (or gearmotor) is allowed and no components may be installed without previous Rossi authorization.

6 - Operating Instructions

Refer to "Operating Instructions" for the list of residual risks and the installation and maintenance instructions; download the instructions from www.rossi.com.

3 - How supplied

At receipt verify that the unit corresponds to the one ordered and **has not been damaged during the transport**, in case of damages, report them immediately to the courier.

Do not commission gear reducers and gearmotors that are even slightly damaged or not suitable for the intended use: in this case consult Rossi.

Report any non-compliance to Rossi.

Nameplate. Every gear reducer is provided with a name plate containing main technical information relevant to operating and constructive specifications and defining, according to contractual agreements, order confirmation and further specific documentation, the application limits; the name plate must not be removed and must



Targa. Ogni riduttore è dotato di targa di identificazione contenente informazioni tecniche relative alle caratteristiche funzionali e costruttive e ne definisce, assieme agli accordi contrattuali, alla conformità d'ordine e alla eventuale documentazione specifica, i limiti applicativi; la targa non deve essere rimossa, e deve essere mantenuta integra e leggibile. Tutti i dati riportati nella targa devono essere specificati sugli eventuali ordini di parti di ricambio.

Schmiermitteltyp. Falls nicht anders angegeben, werden die Getriebegrößen 32 ... 81 **komplett mit Schmiermittel geliefert**, wobei die Größen 100 ... 360 **ohne Schmiermittel geliefert** werden. Alle Getriebe sind mit einem **Schmierungstypschild** ausgerüstet.

4 - Anheben und Transport

Makere sicher, dass die Hubvorrichtung den Abmessungen und der Gesamtmasse des Getriebes oder des Getriebemotors (Getriebe, Motor, Öl, usw.) geeignet ist, sich auf den Rossi technischen Katalog beziehen.

Attention! Se non diversamente specificato, le grandezze riduttore 32 ... 81 vengono fornite **complete di lubrificante** mentre le grandezze 100 ... 360 vengono forniti **senza lubrificante**. Tutti i riduttori sono equipaggiati con una **targa adesiva di lubrificazione**.

5 - Sollevamento e movimentazione

Assicurarsi che l'equipaggiamento di sollevamento sia adeguato alle dimensioni e alla massa totale del riduttore o motordriduttore (riduttore, motore, olio ecc.); alla corrispondenza del nomeplate e delle specifiche trainate e per le notevoli esperienze d'uso.

Attention! Qualora la massa sia indicata in targa tenere presente che:

- non include la massa del lubrificante;
- per i motoriduttori è sempre quella del **motoriduttore senza motore**, pertanto tenere conto anche della massa del motore indicata sulla specifica targa, per conoscere la massa dell'insieme.

Avoid unbalanced lifting (during the movement, inclination must not exceed max ±15° as to mounting position) and, if necessary, use additional belts to balance the weight. For the lifting:

- Do not use shaft ends.

- Do not use motor eyebolts, if any.

- Do not use front threads of shaft ends or any external pipes.

- Do not add supplementary loads to the gear reducer or gearmotor mass.

Attention! During the lifting and handling:

- wear the appropriate PPE;

- do not stand under the suspended loads;

- do not damage the gear reducer with an inadequate transport;

- keep the gear reducer filled with oil in the mounting position foreseen in the order.

6 - Levage et transport

Makere sicher, dass die Hubvorrichtung den Abmessungen und der Gesamtmasse des Getriebes oder des Getriebemotors (Getriebe, Motor, Öl, usw.) geeignet ist, sich auf den Rossi technischen Katalog beziehen.

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7 - Aufstellung und erster Anlauf

Bei der Aufstellung und während des ersten Anlaufs vergewissern, dass die Schaltzähne ausgestellt sind und sein.

Attention! Eventuali ulteriori misure di sicurezza e protezioni supplementari devono essere adottate e garantite da chi è responsabile dell'installazione.

Attention! Si sono pericoli per persone o cose derivanti da cadute o proiezioni del riduttore o di parti di esso, prevedere le misure di sicurezza e protezioni supplementari.

Attention! Non aggiungere carichi supplementari alla massa propria del riduttore o del riduttore.

Attention! Durante el sollevamento y la movimentación avere cura di:

- el correcto uso de las herramientas de fijación;
- la rotación o lo esfilar del riduttore dal perno macchina conseguente a roturas accidentales del vincolo di reacción;
- la rotura accidentale del perno macchina.

Attention! Componenti in esecuzione speciale o con varianti costruttive possono differire nei dettagli rispetto a quelli descritti e possono richiedere informazioni aggiuntive.

Attention! Qualunque tipo di operazione sul riduttore o sui componenti ad esso connessi deve avvenire a **macchina ferma e fredda**: scollare il motore (compresi gli equipaggiamenti ausiliari) dall'alimentazione, il riduttore dal carico e assicurarsi che si siano attivati i sistemi di sicurezza contro ogni avviamento involontario e, ove si renda necessario, prevedere dispositivi meccanici di bloccaggio (da rimuovere prima della messa in servizio).

Attention! Durante el funcionamiento de los componentes conectados debe efectuar el **desmontaje** de la tuerca de fijación.

Attention! Durante el arranque del motor se deben observar las normativas aplicables en materia de correcta instalación y las vigentes disposiciones de ley sobre la seguridad para garantizar la incolmidad de las personas y evitar daños graves a la máquina o al sistema.

Attention! Si se han adoptado y garantizado las medidas de seguridad y protección adicionales, se deben observar las normas de instalación y las disposiciones de ley sobre la seguridad para garantizar la incolmidad de las personas y evitar daños graves a la máquina o al sistema.

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