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Equipment for Use in Potentially Explosive Atmospheres

On 1st July 2003, the Directive 94/9/EC (ATEX - ATmosphères EXplosives) became effective and enforces on equipment and systems for use in potentially explosive atmospheres in the territory of the European Community.

The Directive relates not only to electrical equipment, but also to all kinds of machines, materials, apparatus, fixed or mobiles devices, control components and instrumentation thereof and detection or prevention systems which, separately or jointly, are intended for the production, transport, storage, measurement, control and conversion of energy, or the processing of materials and which are capable of causing an explosion through their own potential source of ignition.

The environments (petrochemical, pharmaceutical, cosmetic, painting manufacturing, texture dyeing, paper production, woodworking, etc) where basically power transmission equipment are installed, are involved by the Directive ATEX and therefore, speed reducers are included both as geared motors and gearboxes alone.

The Series ATEX of VARVEL units are according with the Directive Atex and therefore, qualified to installation in areas of Group II, Category 2 and 3 with explosion danger in presence of gas (Zone 1 or Zone 2) and of combustible dust (Zone 21 or Zone 22).

The gearboxes VARVEL-ATEX are available for the following series:

RS – worm speed reducers	Available for all sizes
RT – worm speed reducers	Available for all sizes
RD – helical speed reducers	Available for sizes 0, 1, 2, 3 and 4
RP – helical speed reducers	Available
XA – helical speed reducers	Available for sizes 63, 71 and 80
RC – helical speed reducers	Available for all sizes
RN – parallel shaft speed reducers, shaft mount	Not yet available
RO – bevel/helical speed reducers, horizontal mount	Not yet available
RV – bevel/helical speed reducers, vertical mount	Not yet available
RG – planetary speed reducers with reduced backlash	Not available
VR – mechanical speed dry friction variators	Not available
VS – mechanical planetary oil lubricated variators	Not available

The Series ATEX of VARVEL units are identified by the following codes:

- Serie RC «**ATEX 03RC**»
- Serie RD «**ATEX 03RD**»
- Serie RP «**ATEX 03RP**»
- Serie XA «**ATEX 03XA**»
- Serie RS «**ATEX 03RS**»
- Serie RT «**ATEX 03RT**»

According with the Directive Atex, the gearboxes of Series VARVEL-ATEX are marked:

II 2 GD ck IP66 Tmax=120°C or Tmax=135°C – Tamb -20/+55 °C

where:

- **II** Group II (surface industries)
- **2** Category 2
- **G** Explosive atmosphere with presence of gas, clouds, vaours in Zone1 (2G) and Zone2 (2G and 3G)
- **D** Explosive atmosphere with dust presence in Zone 21 (2D) and Zone 22 (2D and 3D)
- **c** Construction Safety «c»
- **k** Dipping in liquid «k»
- **IP66** Protection
- **Tmax** Max. Surface Temperature
- **Tamb** Ambient Temperature

The relevant Technical Files are deposited at Notified Body of European Community.