

# Installation 15-17B

## Supply Terms

Variators are supplied as follows:

- WITHOUT OIL, if not required on the order.
- Prearranged to be installed in the ordered position.
- Tested as per internal specifications.
- With appropriate packing as specified in the order.
- Painted if specified in the order or if there is a cast iron reducer.
- With nuts and bolts for motor mounting.
- With operator's manual.

## Installation

During painting, if applicable, protect oil seals and machined surfaces.

Make sure that the variator is located onto a flat and not-flexible surface, and not subjected to any vibrations. If the variator has a reducing unit fasten both only if the basement is perfectly flat so as to guarantee the correct alignment of shafts. Should high solicitations be foreseen, it is advisable to reinforce the screw heads by means of cut washers.

During mounting of pinions, couplings or pulleys onto the output shafts, try to avoid any impact by using the appropriate pullers located in the threaded holes at the ends of the shafts.

Make sure that any mounting of overhanging pinions and pulleys has been allowed by the appropriate tests on permissible radial loads.

When coupling shafts and hubs, appropriate antioxidant should be applied onto all surfaces which come in contact and keys shouldn't be too tightened in order to avoid the possible breakage.

The coupling to the motor should always be free and smooth. Fastening screws should only be tightened once both flanges are in contact. When mounting is completed make sure the motor runs freely by manually operating the fan.

## Starting, adjustment



**The speed variator is supplied WITHOUT OIL; before running, fill to level using the recommended grade of oil (see LUBRICATION).**

The input sense of rotation must always be as indicated by the arrow on variator input side. Standard rotation of variator input shaft is **CLOCKWISE**. On request, it can be **ANTICLOCKWISE** or **bidirectional** (with code D or code A).

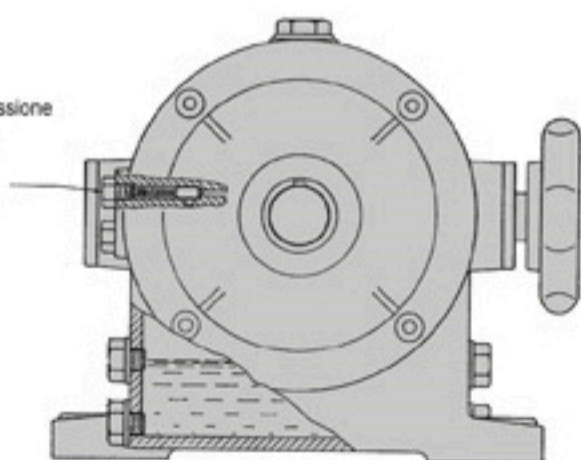
When starting a new variator it's important to run the unit for 15/20 mins at output shaft low speed and without load.

Working temperature:  
60°C + room temperature.

For best results from the variator, we advise adhering to a range between 900-1450 rpm, for the input shaft.

Valvola di massima pressione della pompa ausiliaria

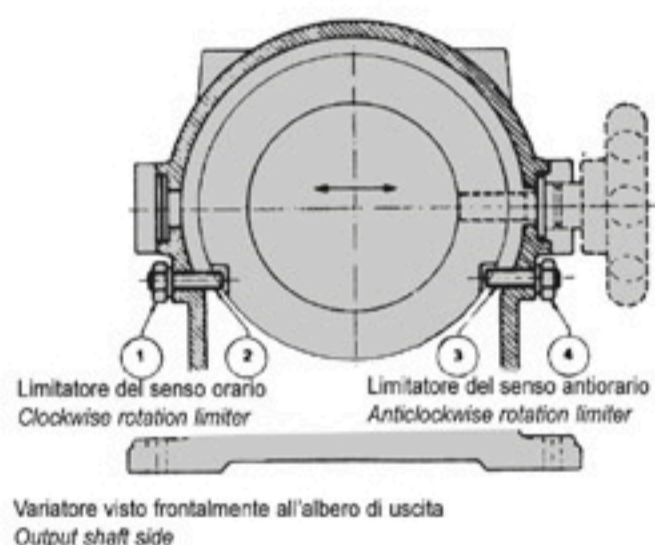
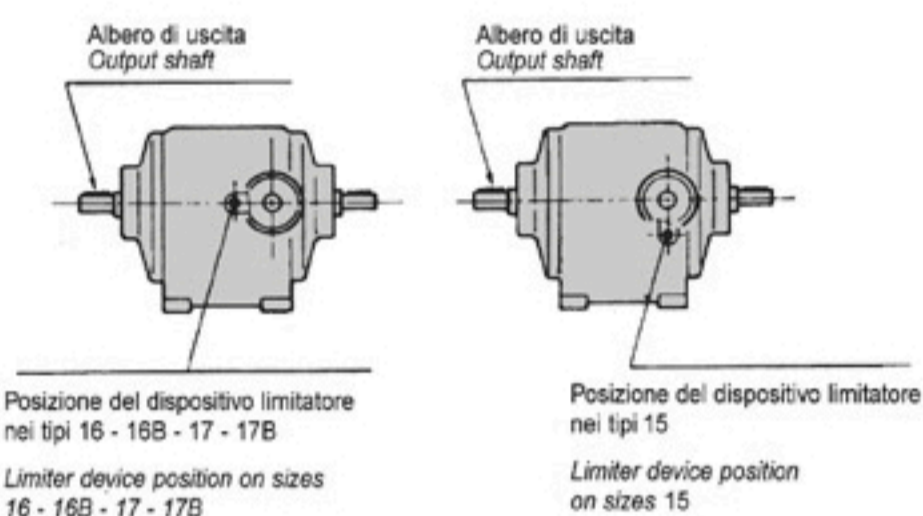
Auxiliary pump relief valve



## Mechanical stops

The variator is provided with mechanical stops, represented in the illustration under ref. 1-2 and 3-4, by which it is possible to limit the travel of the mechanism, adjusting the hydraulic pump of the variator, and to obtain a limited variable speed range on one or both output directions of rotation or the adjustment in one sense of rotation only (clockwise or anticlockwise) with locking in the opposite direction of rotation. For the adjustment of the limiter device it is necessary to start the variator and through the control regulate its speed to the maximum required value, or to zero revs. in case it is necessary to exclude the adjustment in one direction of rotation, then operate on the mechanical stops as follows:

- to limit or to exclude the adjustment in the clockwise rotation. turn nut 1 out and turn screw 2 in until it reaches the adjusting mechanism;
- to limit or to exclude the adjustment in the anticlockwise rotation: turn nut 4 out and turn screw 3 in until it reaches the adjusting mechanism;
- conclude the operation by locking nut 1 or 4.



## Maintenance

The lubricant need to be periodically topped using the prescribed oil types. Avoid mixing synthetic and mineral lubricants. It's advisable to carry out the first oil change after 200 operating hours and the subsequent ones every 2000 operating hours. When changing the oil replace and filters on speed controls; type Fran 2839 for control 37 (proportional); type 50301 draw. MC 95.00.267 for other hydraulic controls (31, 46, 65, 66, 67).

From time to time check that the fan cowl of variator and motor are not clogged with dust, fibres or other.

To safeguard the efficiency of the variators respect the following procedure:

- Stock the variators in appropriate environments with a low humidity level.
- Place them possibly onto shelves.
- In case of prolonged stocking periods, lubricate the external parts which could be subject to oxidation (shaft and machined parts). The variators should be completely filled up with oil. Oil level should then be reset to required levels during installation.
- When installing after long stocking period, run variator at low speed without load for half an hour.