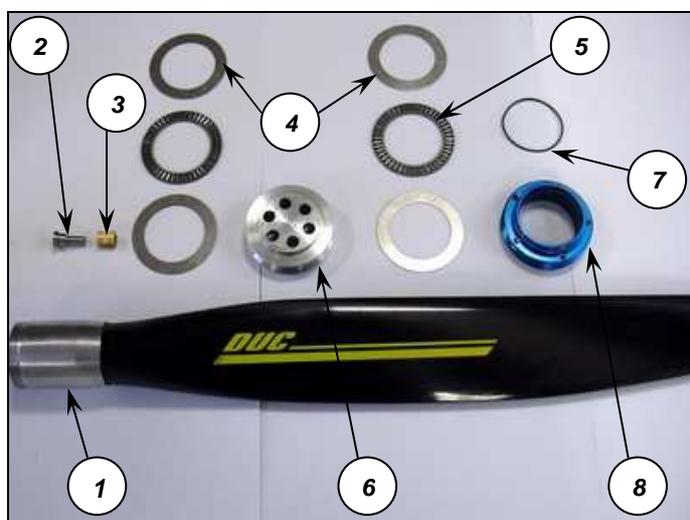


DUC SWIRL PROPELLER – VARIABLE PITCH

• NOTE OF ASSEMBLY •

ASSEMBLY OF THE BLADES



List of items :

- 1 – **SWIRL PV** blade,
- 2 – axle of stop of ring PV,
- 3 – cube PV bronze,
- 4 – needle bearing spacers,
- 5 – needle bearing,
- 6 – stop of ring PV,
- 7 – O-ring of the retaining nut,
- 8 – retaining nut of PV blade.

stage 1 :



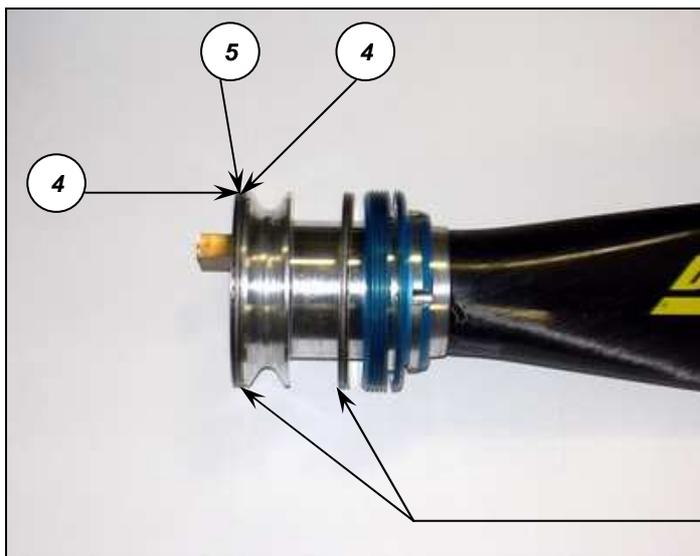
The **SWIRL PV** blades are delivered with the machine elements assembled and stuck on the ring of blades (see figure opposite).

Stage 2 :



Position the hub of the propeller with variable pitch on a support so as to obtain a horizontal position of the blade to be gone up.

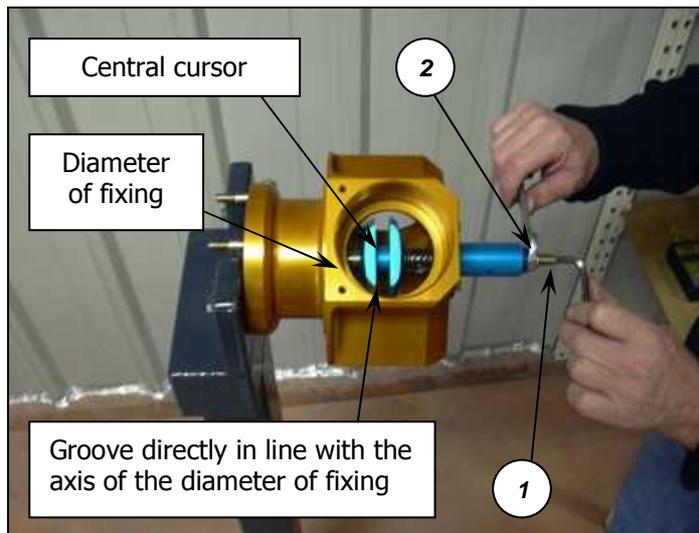
Stage 3 :



Stick with grease of bearing the needle bearing **(5)** between two spacers **(4)** and to stick the unit on the thrust of ring PV **(6)** .

spacer**(4)** / needle bearing**(5)** /spacer**(4)**
stuck to the grease of bearing

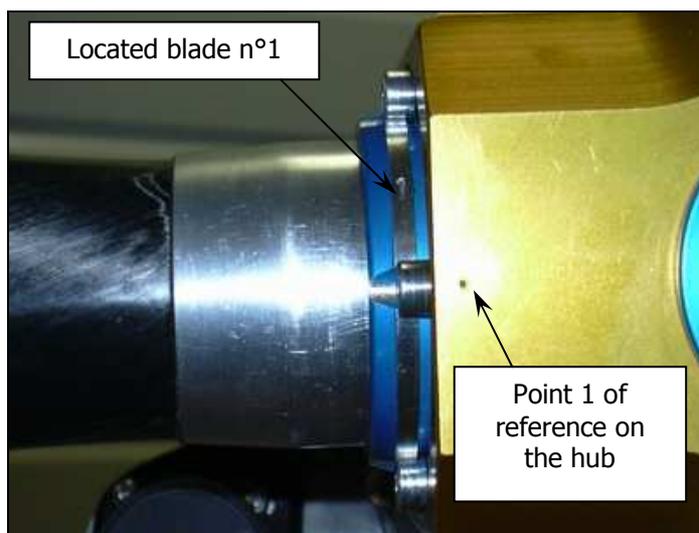
Stage 4 :



Position the central cursor of the hub directly in line with the axis of the diameter of fixing of the blade's foot by means of the screw (1) and the nut(2).

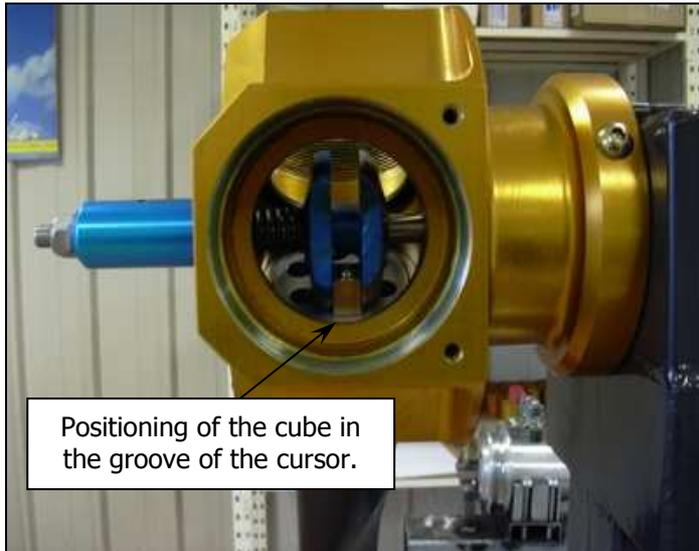
This adjustment allows an easier positioning of the bronze cube PV in the groove of the cursor.

Stage 5 :



- Locate each blade compared to its specific site on the hub before carrying out the complete assembly of the blades,
- Oil the ring of blade's foot and to lubricate the faces of the cube (3).
- Position the circlips of the bronze cube not to obstruct its insertion in the groove of the central cursor.

Stage 6 :



- Move back to the maximum the retaining nut of PV blade (8) not to obstruct the positioning of the cube,
- Position the cube in the groove of central cursor of the hub beforehand directly in line with the axis of the clamp hole of the blade.
- Come while threading the blade in its housing from fixing and to make sure that the spacers (4) and the needle bearing (5) are always well positioned.

Stage 7 :



- Screw the retaining nut blade (8) with the special key provided by taking the maximum of precautions not to damage the thread.
- Check that the O ring (7) is always well positioned at the interior of the retaining nut of blade.
- Tighten moderately.

Stage 8 :

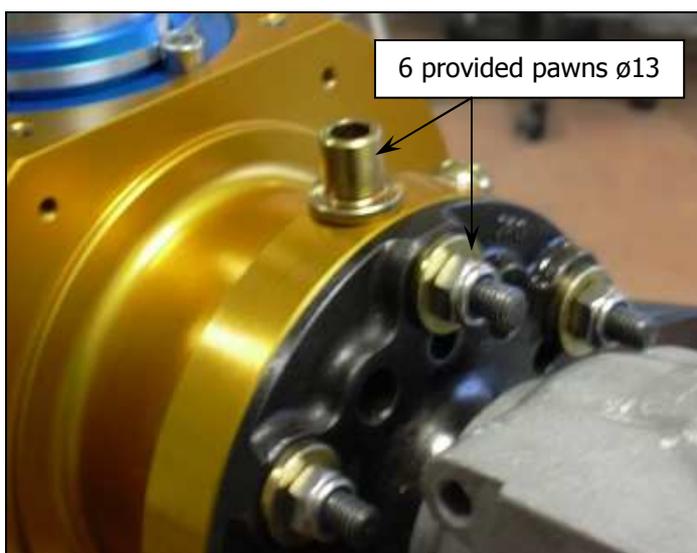


Block the 5 brake screw CHC M6 to the tightening torque of 10 N/m.

These screws prevent the loosening of the fixing nut of the blade.

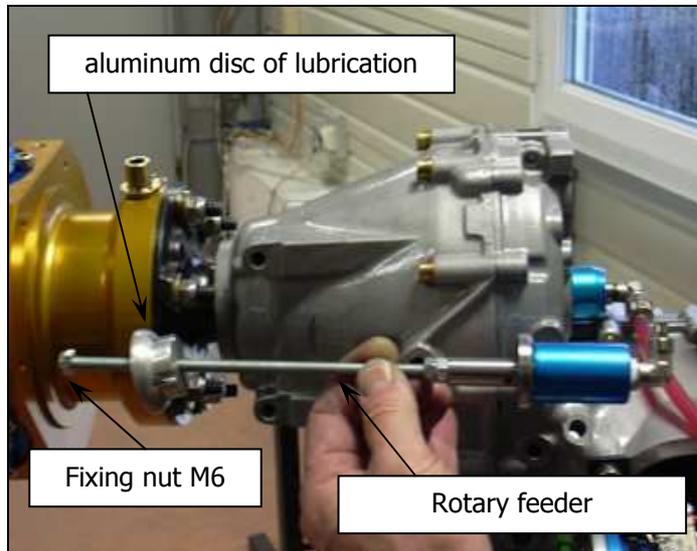
ASSEMBLY OF THE PROPELLER

Stage 1 :



Remove the initial pawns of the support propeller flask of reducer ROTAX and to replace them by the provided pawns $\varnothing 13$.

Stage 2 :



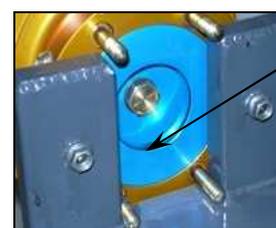
- Insert the rotary feeder on the side postpones of the axis of the reducer
- Control that the O-RING is correctly placed.
- By before axis of the reducer, position the aluminum disc of lubrication, the threaded rod passing to through and to fix the distributor with the M6 fixing nut. Put in light tension.

Notice :

In the case or a spinner of propeller is envisaged, install its mounting plate before the assembly of the hub on the propeller flask.

With the back of the hub, position the mounting plate of the spinner after having with boring a central hole $\varnothing 124\text{mm}$ and drillings M5 correspondents for the fixing of the flask.

Stage 3 :



With hydraulic oil, lubricate the joint of the hub,

Carry out the tightening of the 6 M8 nuts to the tightening torque of 22 N/m.