

Curing of Re-Treaded Tyres



In re-treaded tyres the worn tread has been removed and replaced with new material of the same type as the original.

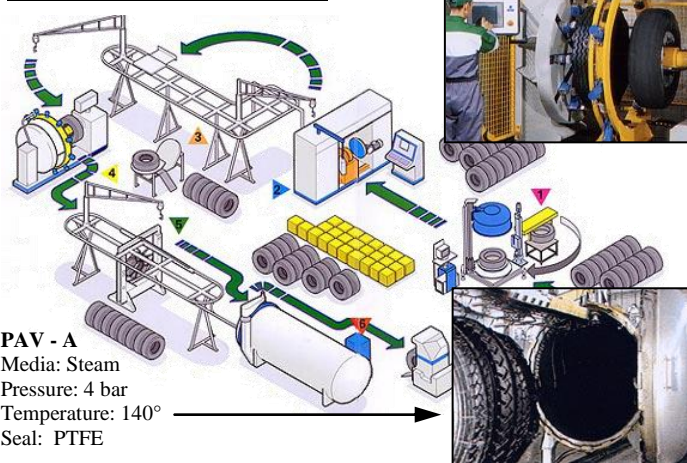
Old undamaged tyres are used as raw material. Tyres can be re-tread because the life of the framework is usually longer than the life of the tread.

The market of re-treaded tyres is growing steadily; their success is due to reliability, money saving, environmental protection. Re-treaded tyres are mainly used on planes and lorries; car owners may often choose this alternative too.

PLANT DESIGN

APPLICATION

Cold Process with Autoclaves



The re-treading process consists of an inspection of the framework to check its suitability to be re-treaded, a scraping of the remains of the worn tread, the laying of the new tread ring, the check of centring and balancing, and a final curing when the new tread becomes a whole with the framework.

During the cold process, the tread ring that is laid is pre-moulded and the curing is carried out inside an autoclave. Valves (A) in the autoclave control steam at 140° at the pressure of 4 bar to warm up the chamber.

Hot Process with Press

PAV-B
Media: Diathermic oil
Pressure: 2 bar
Temperature: 130°C
Seal: PTFE

PAV-C
Media: Air and steam mixed
Pressure: 3 bar
Temperature: 90°C
Seal: PTFE



During the hot process the tread ring is smooth and is moulded in the curing press.

There are two valves on the curing press: one (B) controls diathermic oil at 130° at the pressure of 2 bar for warming up the mould; the other (C) controls an air and steam mix at 90° at 3 bar used for inflation.

Temperatures and pressures are calculated for an optimal balance between safety of the outcome and respect of the framework.

SOLUTION



TYPE SG207SXY00 / SXS code 75883730094
Normally Closed S/S PAV
Body Actuator Ø63 – Connection 1”BSP - DN 25
Flow Direction over seat
Pilot Pressure min 5 bar - max 10 bar
Working Pressure 0-20 bar
Seal Material PTFE