

# The reliable solution for unsaturated Polyester Resin

CASE STORY

The pumping of polyester resin has always caused problems because of the material properties of this liquid. In December 1996 Rotan Pumpengesellschaft GmbH became involved in the solution of a pumping problem at the end-user of an OEM. A big competitor from the USA had delivered pumps which did not turn out satisfactorily in terms of leakage.

The expensive breakdowns and operational downtimes were no longer acceptable. The OEM, who had committed himself to supply his customer with a functional and reliable installation, asked Rotan Pumpengesellschaft for help.

The problem involved in pumping unsaturated resin was well-known to us. Among other things the temperature of the medium must be kept below 50°C in order to avoid coagulation. Thus it is necessary to limit the friction at the shaft seal to a minimum. Moreover, a continuous flow of the product over the shaft seal should be ensured in order to remove the heat which is inevitably generated.

Pumps installed up till now:		
12	CD 81 ERFT 3U22PAL	Keil/Tetradur/bayr.Yacht
2	CD126 ERFT 3U22PAL	Keil/Tetradur/bayr.Yacht
7	HD/PD 126 ERFT1U22PAL	Keil/Lorentz
6	CD81 ERFT 3U22PA	Bayrakly/Turkey
3	CD101EFT 3U22PAL	Bayrakly/Turkey



If a pump with a large volume and a maximum of 150 RPM was selected, internal friction in the pump would also be reduced to a minimum.

### Solution

Rotan Pumpengesellschaft GmbH built a test pump by means of standard parts from the CD + HD/PD pump ranges with stuffing box plus 2 special, machined parts as well as 2 special shaft seal rings and a ground rotor shaft coated with tungsten carbide at the shaft seal area. The pump was equipped with a short suction pipe from the seal housing to the suction side of the valve.

This pump, named CD81ERFT, code 3U22PAL, No. 268285, has been in intermittent duty for approx. 3-4 hours a day since the beginning of February 1997, 136 RPM x 5 bar x approx. 4000 cSt, without leakage.

### Result

Since the beginning of February 1997, 30 pumps of this special "PAL" design (deduced from Palatal BASF) have been delivered and put into operation.

Fields of application: Suppliers of accessories to the car industry, electrical industry, plastic industry, yacht and boat builders, wherever laminated plastic and the like are produced or used as structural member.

