

# PRODUCTS

## UNITED BRAND ( API610 PUMPS )

### HORIZONTAL

#### ATC

▶ single stg. over hung  
radially split casing

#### THF/DSTHF

▶ two-stg. between bearings  
radially split casing

#### DVSHF

▶ single stg. between bearings  
radially split casing

#### DVS

▶ single stg. between bearings  
axially split casing

#### MSN

▶ multi-stg. between bearings  
axially split casing

#### DDHF

▶ multi-stg. between bearings  
double casing (barrel)

### VERTICAL

#### VPC/VP/HVP

▶ single stg. vertical in-line

#### VCMS/VCD

▶ single or multi-stg.  
canned pumps or sump pumps

### OTHER BRAND ( NON-API PUMPS )

#### INDENG

▶ MONOFLO  
UNIFLO  
DUOFLO

#### OTHER

▶ VERTICAL TURBINE

### ATC

ATC pumps single stage, overhung, heavy-duty support feet, stiff shaft design, end suction or top suction arrangement. High suction pressure/high temperature applications (e.g. boiler circulators), can be accommodated with special features.



### VCMS & VCD

VCMS (volute case) & VCD (diffuser case) canned pumps with single stage or multi-stages according to head requirements. They are typically used in very low NPSHa applications and in cases where space on site is limited. Reliability is assured by using proper materials for shaft bushings. They can also be used as sump pumps without the suction can.



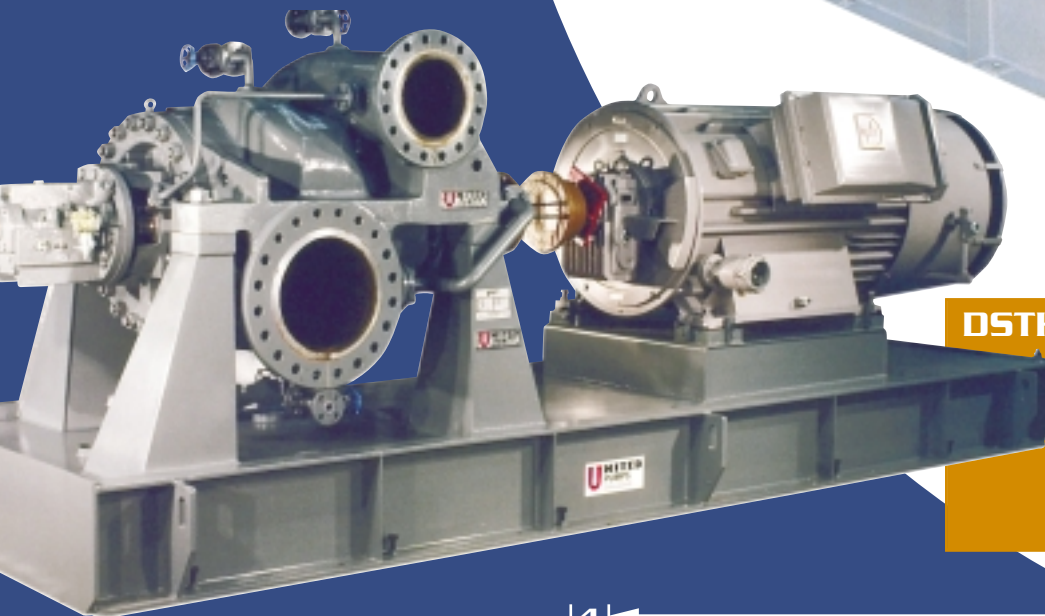
### THF

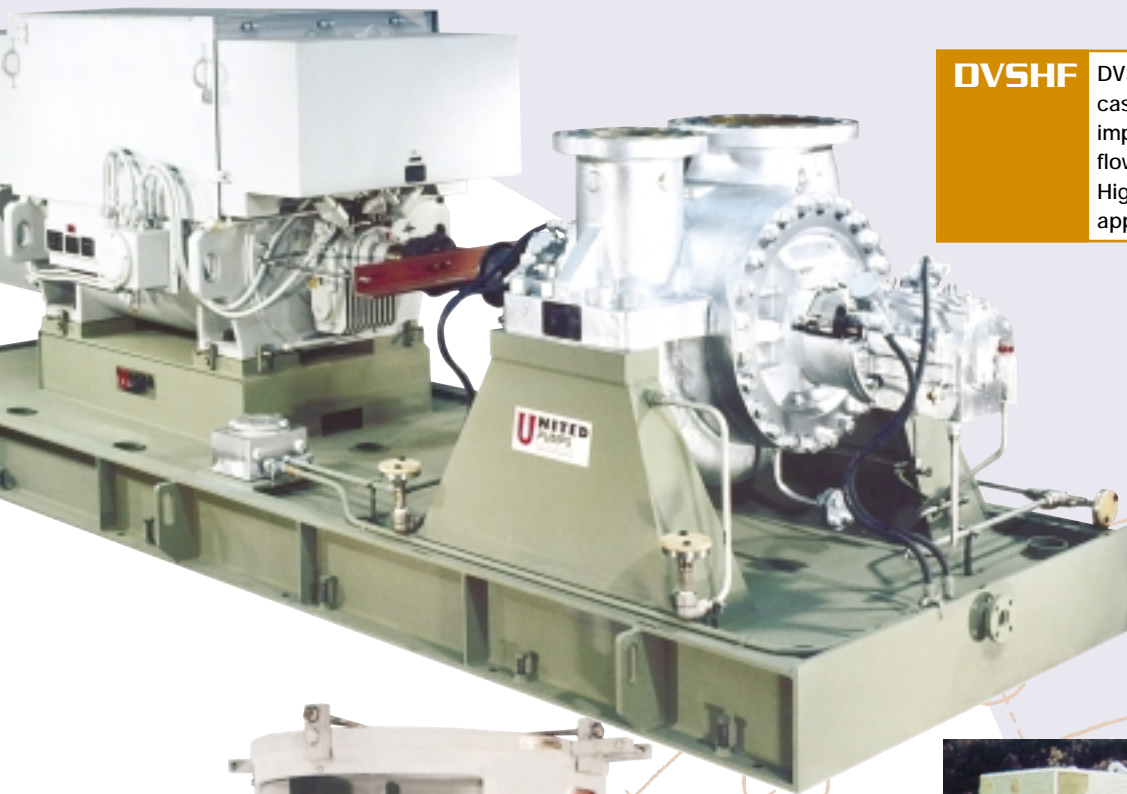
THF pumps with two stages for moderate head applications. High suction pressure and high temperature can be accommodated easily.



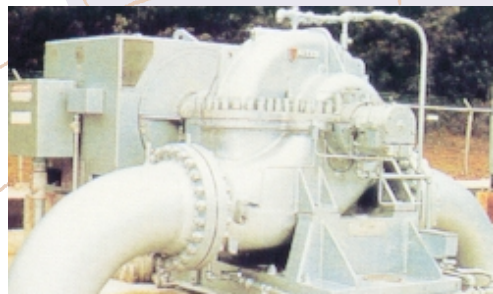
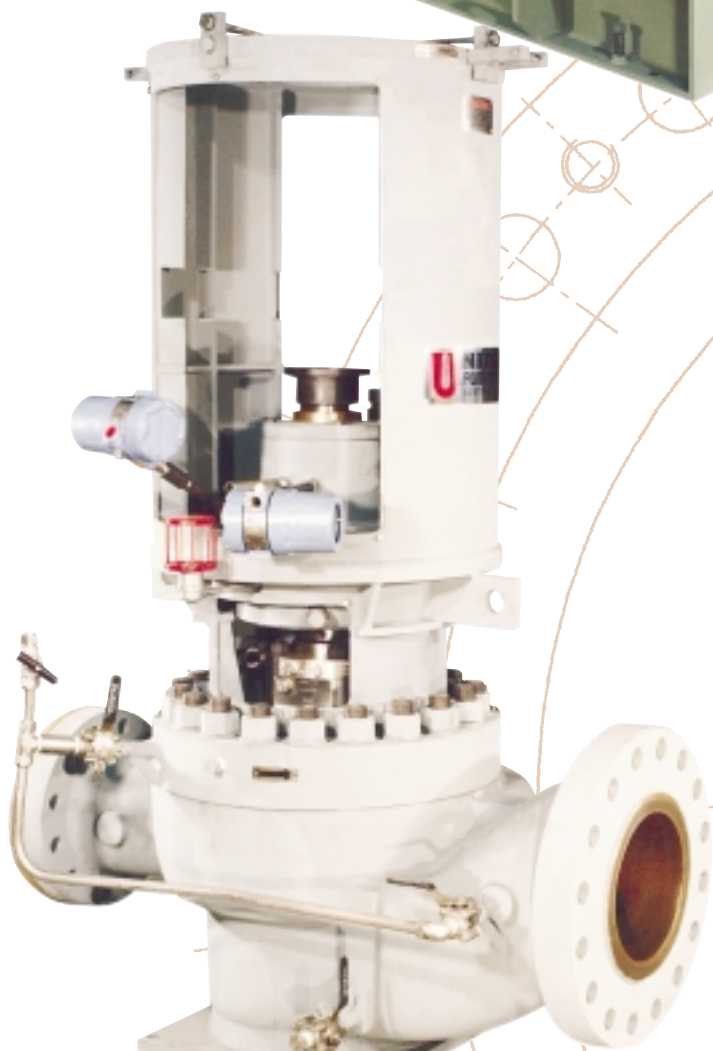
### DSTHF

DSTHF pumps with two stages for moderate head applications, double-entry first-stage impeller to suit low NPSHa cases. Both top suction/top discharge and side suction/side discharge (on the same side) configurations are available. High suction pressure and high temperature can be accommodated easily.





**DVSHF** DVSHF pumps single stage, radially split casing, double casing volute, double entry impeller, suitable for moderate to large flow rate with moderate head applications. High suction pressure/high temperature applications can be easily accommodated.



**DVS** DVS pumps single stage, axially split casing, double casing volute, double entry impeller, suitable for high flow rate and moderate head applications. High suction pressure/high temperature can be easily accommodated.

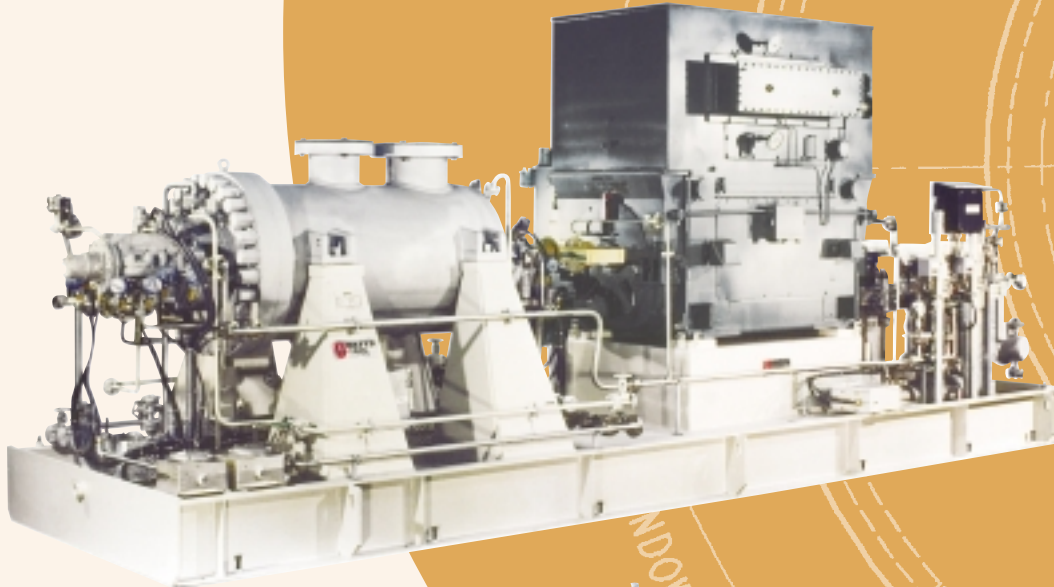
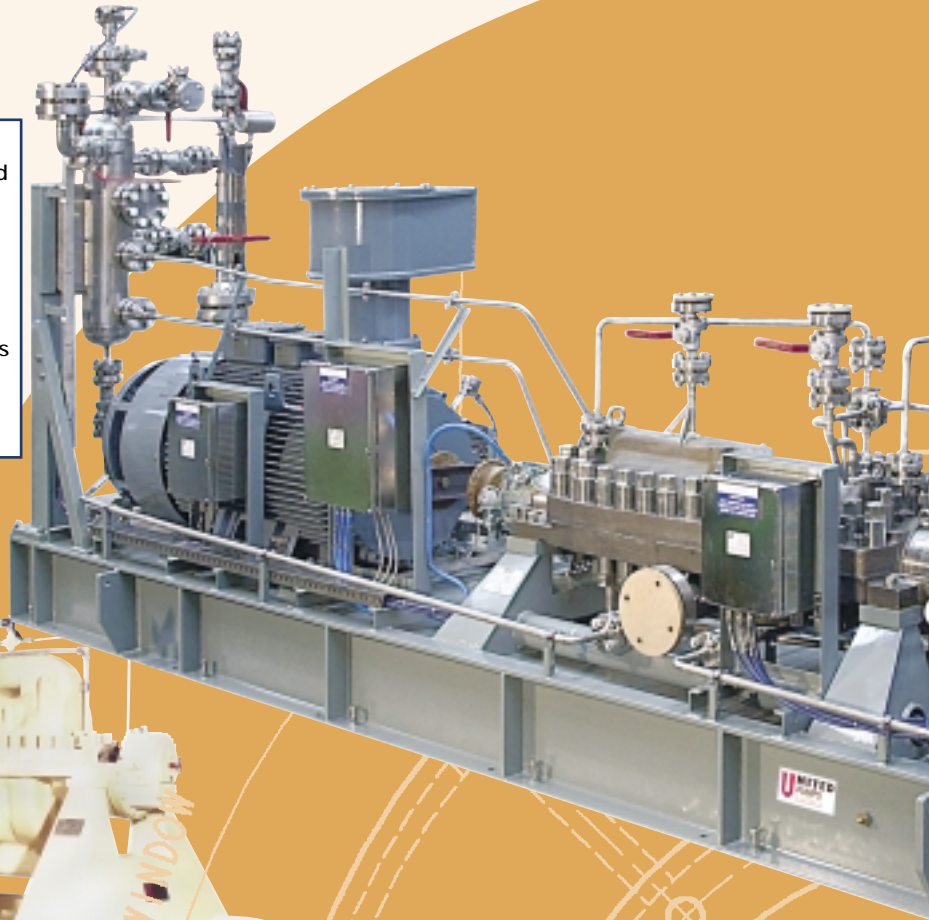
**HVP** HVP pumps single stage, vertical in-line configuration, with self-contained thrust-bearing-housing assembly on pump to accommodate high suction pressure applications.

**VPC/VP** VPC/VP pumps single stage, vertical in-line configuration. VPC pumps are of close-coupled configuration, for easy maintenance. VP pumps have rigid couplings. These pumps are suitable for applications where space on site is limited, or simply for cost saving (comparing with horizontal pumps) reason.



## MSN

MSN pumps multi-stage, axially split casing, double casing volute, opposed impeller arrangement (for axial hydraulic force balancing, therefore eliminating unreliable balance elements), single or double entry first-stage impeller. They are used extensively in high-pressure applications such as refinery process pumps, transfer pumps, water injection pumps, pipelines pumps, BFW pumps, offshore MOL pumps.



## DDHF

DDHF pumps multi-stage, double casing (barrel), double casing volute, opposed impeller arrangement (for axial hydraulic force balancing, therefore eliminating unreliable balance elements). Due to the extra safety double-casing pumps provide, they are the ultimate option in low SG and/or high temperature applications where pressure is extremely high.

