# travaini pumps





### CENTRIFUGAL PUMPS

## TBA

These pumps derive from the TBH series with an additional centrifugal stage at the suction side.

Pumps TBA have extremely LOW NPSH requirements and are particularly suitable for handling boiling liquids and other difficult applications.

This design is especially suited to handle liquids with entrained gases and liquified gases such as LPG.

TBA series have performances, design and duty characteristics as the TBH series.

Pump components are interchangeable thus reducing the need to stock spare parts for both series.

Capacities to 185 USGPM (42 m<sup>3</sup>/h).

Heads to 1100 Feet (335 meter).



### CONSTRUCTION

The self-priming pumps series TBH and TBA utilize the lateral channel principle. The open, "star" type impeller is hydraulically balanced, enclosed between the suction and discharge port plates to form the pumping stage.

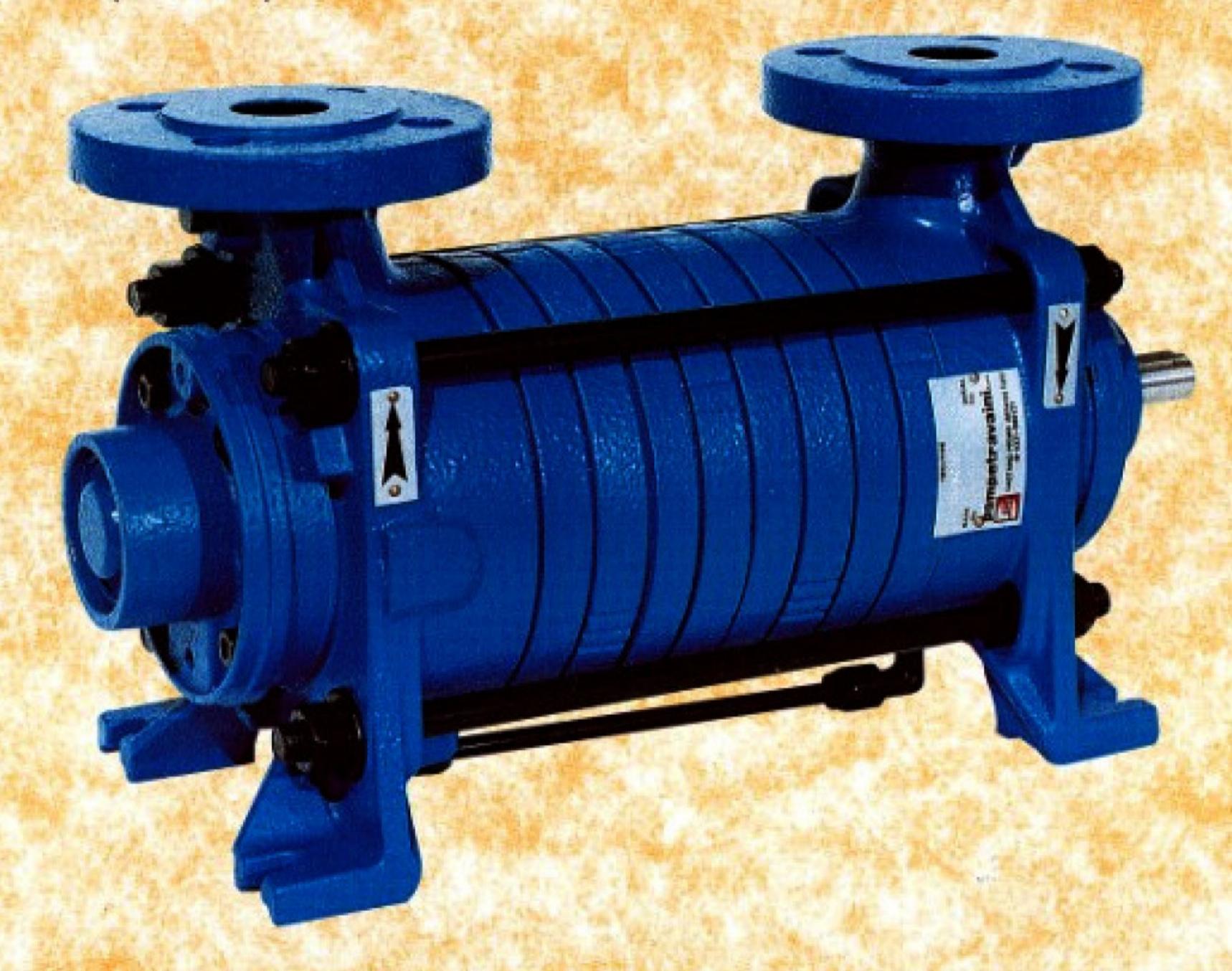
Stages are mounted in series to give proportional higher discharge pressures with constant capacities.



### MULTISTAGE SELF-PRIMING

# TBH

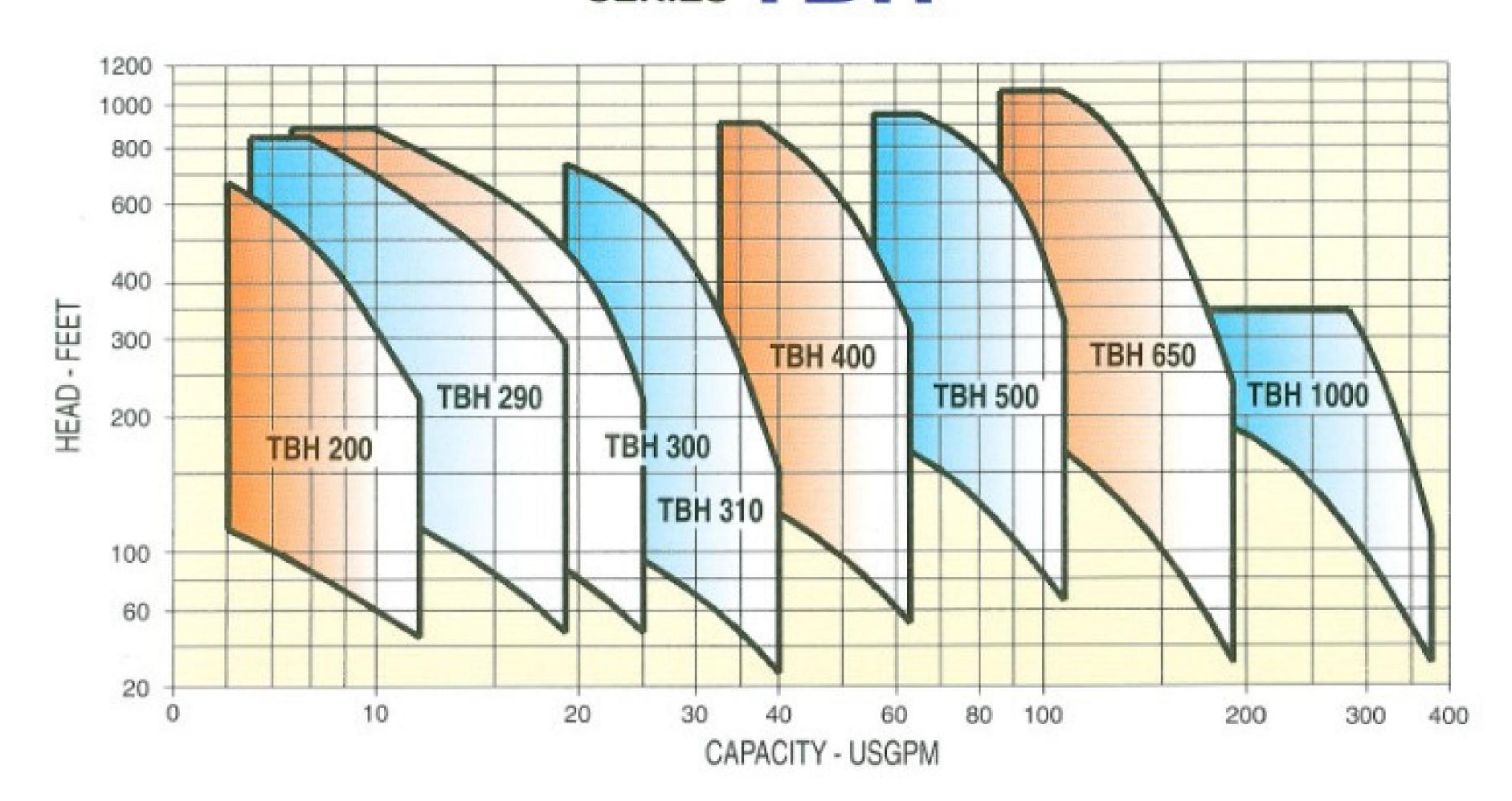
- Multistage self-priming centrifugal pumps with horizontal mounting, top suction and discharge flanges.
- · Capable of handling mixtures of gas and clean and not abrasive liquids.
- · Low capacity high head.
- Suction lift to 28 Feet (8,5 m.w.c.)
- · Low operating speed for extended life, low vibration, low noise level and maximum reliability.
- Impellers are individually hydraulically balanced thus end thrust forces to bearings are eliminated.
- Mechanical seals are standard and unified to DIN 24960.
- · Optional double mechanical seals back to back or tandem.
- Cooled or heated seal housing are available.
- Reduced number of components is achieved by design innovation.
- Choice of motor mounting, including close-coupled through flexible coupling to flanged motor, to HP 30 (22 kW).
- · Variety of materials is available to meet specific requirements.
- Capacities to 370 USGPM (84 m³/h).
- Heads to 1050 Feet (320 meter).



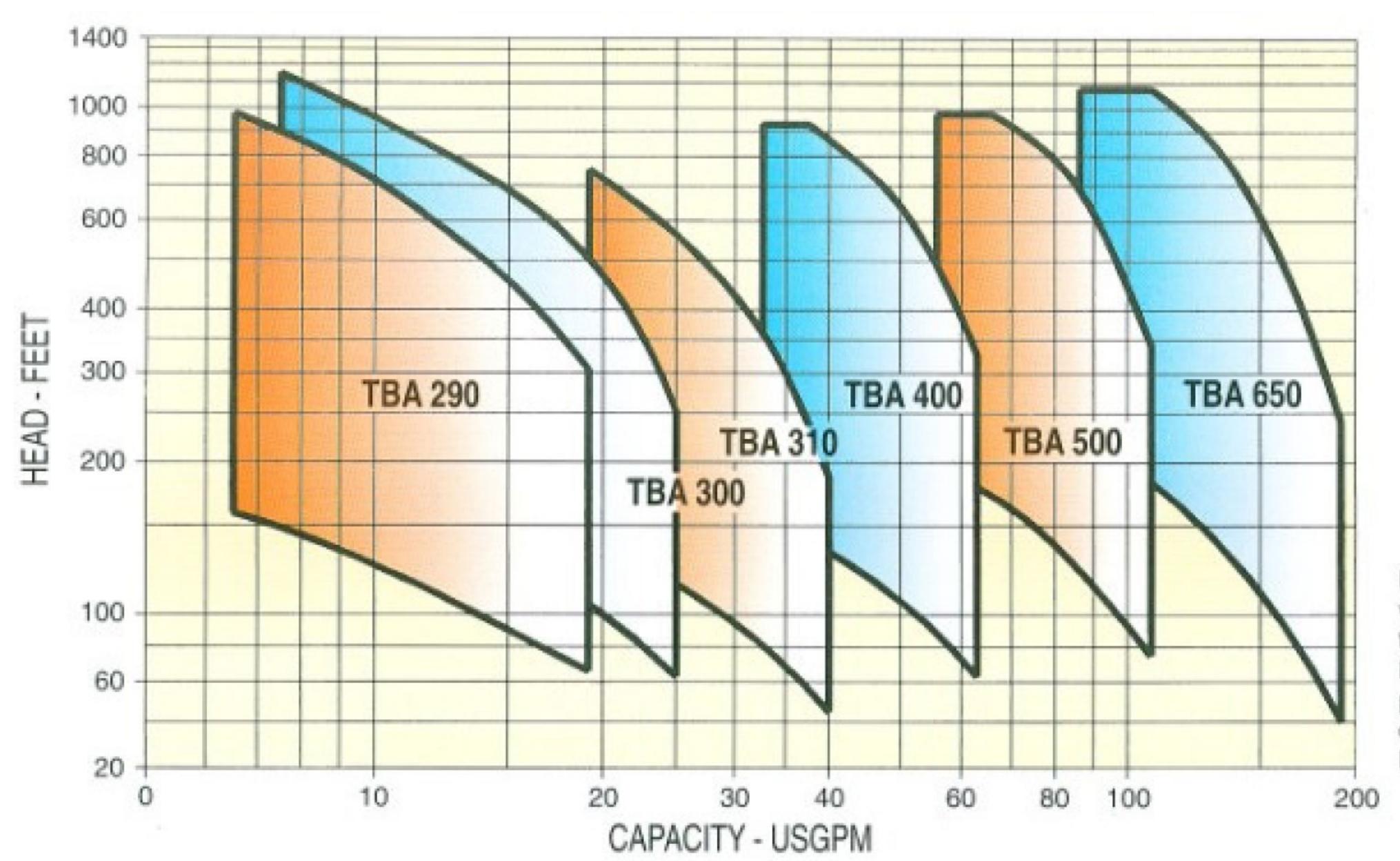
#### APPLICATIONS

- Pumps series TBH and TBA are suitable to handle clean liquids, corrosives, hot or cold in the chemical, petrochemical, pharmaceutical, food industries, etc.
- Removal of condensates and distilled liquids.
- Solvents and liquified gases applications.
- Boiler feed applications.
- Removal or liquid from processes under vacuum.
- Filling stations and transfer of LPG and liquefied gases.
- Fire systems and autoclaves.
- Potable and sanitary systems in the naval industry.
- Spray washing installations.

# SERIES TBH



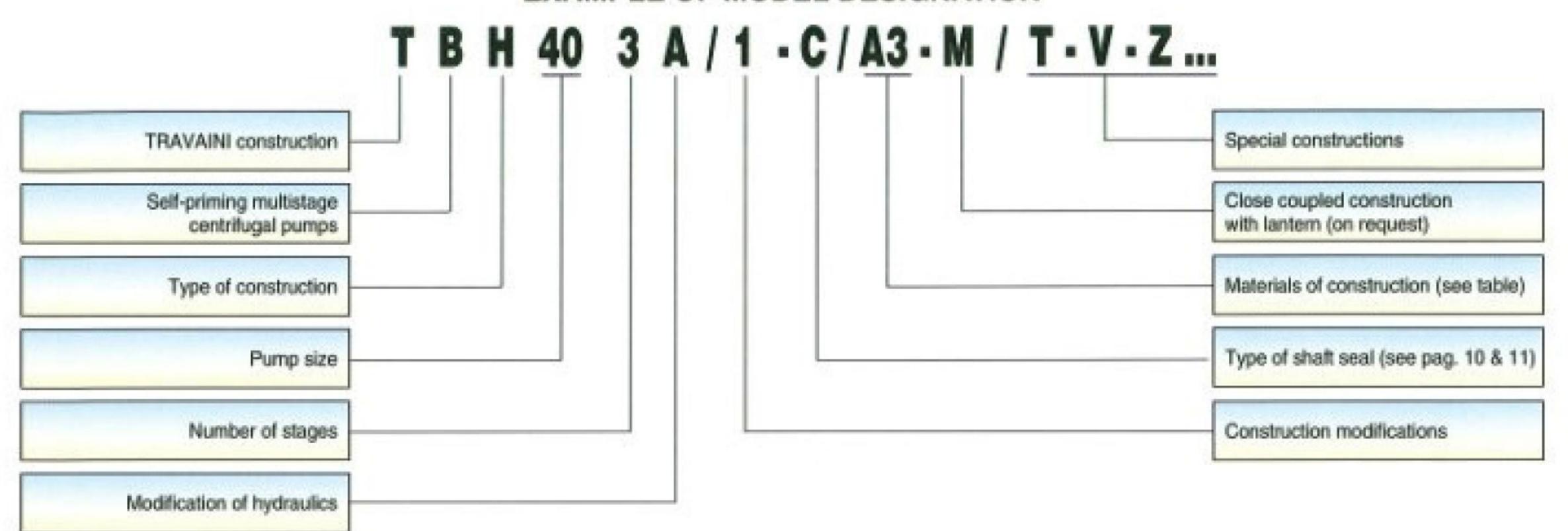
# SERIES TBA



Information is for water at room temperature. For specific performance curves contact POMPETRAVAINI.

### MODELS, MATERIALS AND LIMITATIONS

#### **EXAMPLE OF MODEL DESIGNATION**

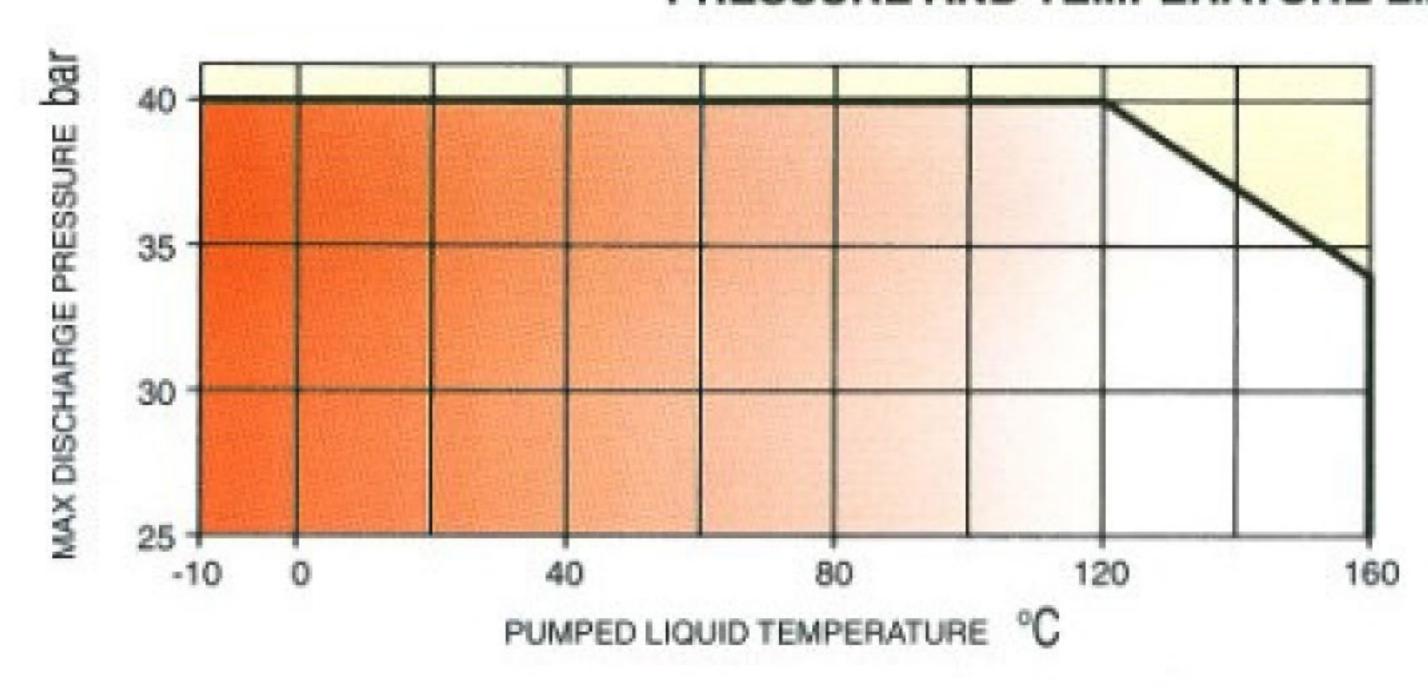


#### STANDARD MATERIALS OF CONSTRUCTION

VDMA N°	Description	GH	RA	A3	B2	GP
106	Suction casing	Ductile iron		Bronze	Ductile iron	
107	Discharge casing					
109 114 149	Port plate and diffuser	Cast iron				Cast iron
210	Shaft	Stainless steel AISI 420 Stainless steel AISI 316 ASTM-CF8M			N-CF8M	Stainless steel AISI 420
147	Manifold	Carbon steel				Carbon steel
230	Impeller	Brass			Bronze	Brass
310.1	Element bush			Carbon		Bronze
357	Bearing and mechanical seal housing			Cast iron		

SPECIAL MATERIALS ARE AVAILABLE UPON REQUEST - For further information please consult our Sales Office.

#### PRESSURE AND TEMPERATURE LIMITATIONS



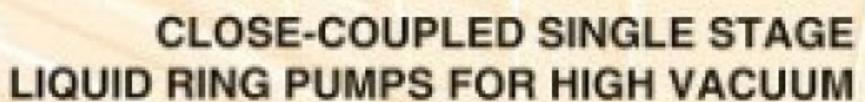
The given values for maximum pressure are the sum of the suction pressure and the pump head at shut-off point.

These limits are not valid for B2 construction.

### OUR PRODUCTION



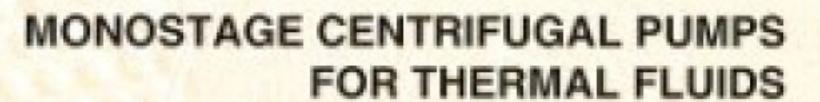
LIQUID RING VACUUM PUMPS







MULTISTAGE CENTRIFUGAL PUMPS





Continuing research of TRAVAINI PUMPS results in product improvements: therefore any specifications may be subject to change without notice.



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