



Ring section design pump

TYPE HPH

Suitable for slightly polluted, chemically neutral or aggressive liquids.

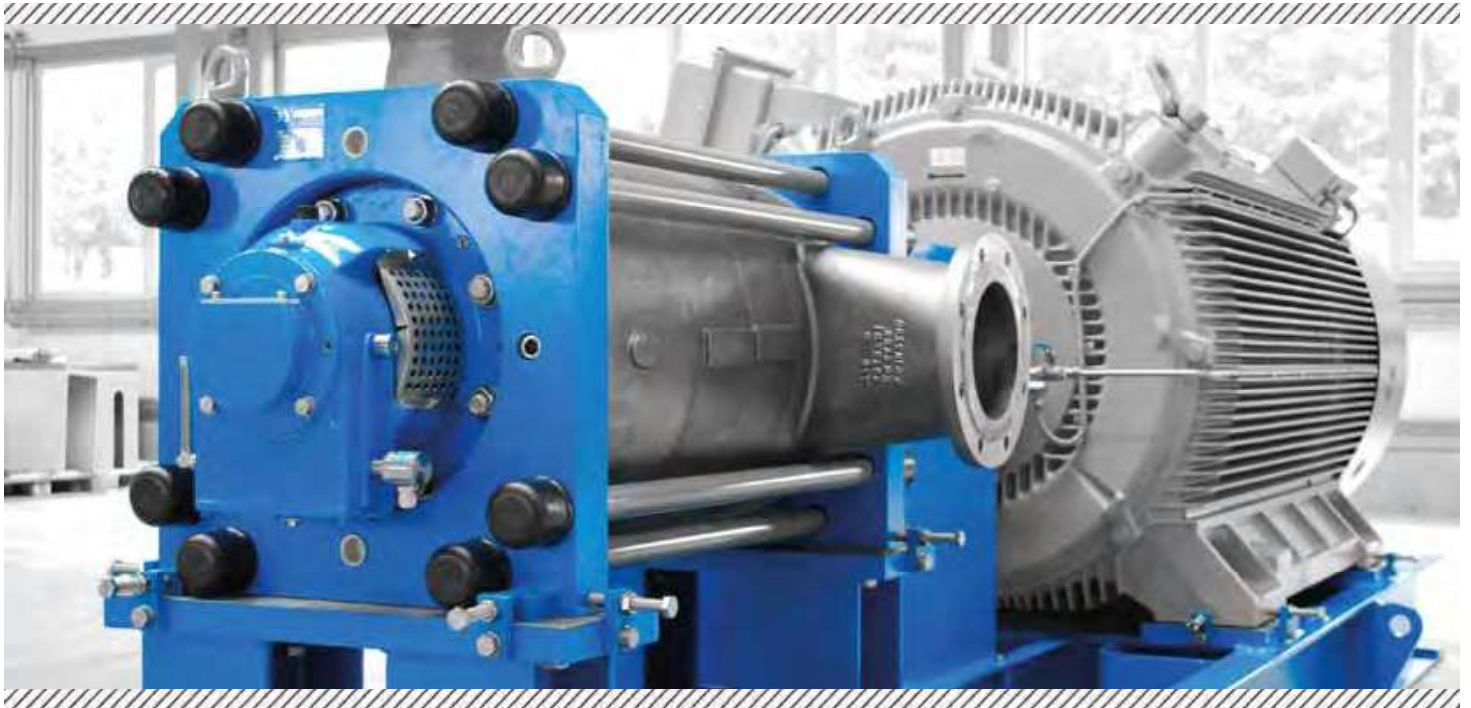


HPH Design

Multistage centrifugal pump in ring-section design.

- Pump inlet: axial or radial with flanges positioned at 90° increments
- Discharge flange: radial positioned at 90° increments
- Replaceable rings in composite material to maintain best efficiency and reliability
- Shaft sealing by stuffing box or mechanical seal
- Axial thrust compensation by balancing discs, piston or combination of both
- Easy replacement of all wearing parts
- Tailormade solutions available:
 - ▶ **Pump dimensions can be adapted to customer requirements**
- Impellers are fixed by fitting key (e.g. backflushing) possible
- Replaceable Impeller wear rings available
- Pump with one or two connective shaft ends
- Impellers and diffusers are cast by using ceramic moulds to get highest surface quality for outstanding hydraulic performance





Fields of Application

Handling of clean or slightly polluted, chemically neutral or aggressive liquids.

- Pressure boosting systems in industrial process
- Water supply, and water treatment
- Seawater desalination
- Condensate production
- Boiler feed systems
- Hot water applications
- Petrochemical applications
- Water Injection

Materials

Carefully selected depending on the application and adapted to the respective conditions.

DÜCHTING PUMPEN offers improved corrosion resistant materials like SUPER DUPLEX stainless steel with Pitting Resistance Equivalent numbers above 40.



Technical Data

Pump Size:	DN 80 to DN 300 (3" to 12")
max. Pressure:	100 bar (1450 PSI)
max. Flow:	3500 m³/h (15400 gpm)
Total head:	up to 1100 m (3600 ft)
Rotating Speed:	up to 3600 rpm



Pump Type HPH

Diffusor

With reduced impact losses due to CFD optimized flow channels.

Impeller

Design in consideration of optimal specific speed. Cast in ceramic moulds for best surface quality. Different impeller sets available for every pump size.

Wear Rings

Replaceable wear rings in composite material to maintain best efficiency and reliability.

Axial suction Branch available

In horizontal orientation for constant inlet velocities and reducing suction pressure requirements.

Liquid lubricated plain bearing

Plain bearing eliminates second mechanical seal (for axial inlet).

Bearings

Supplied with oil-lubricated anti-friction bearings or plain bearings for long-life performance.

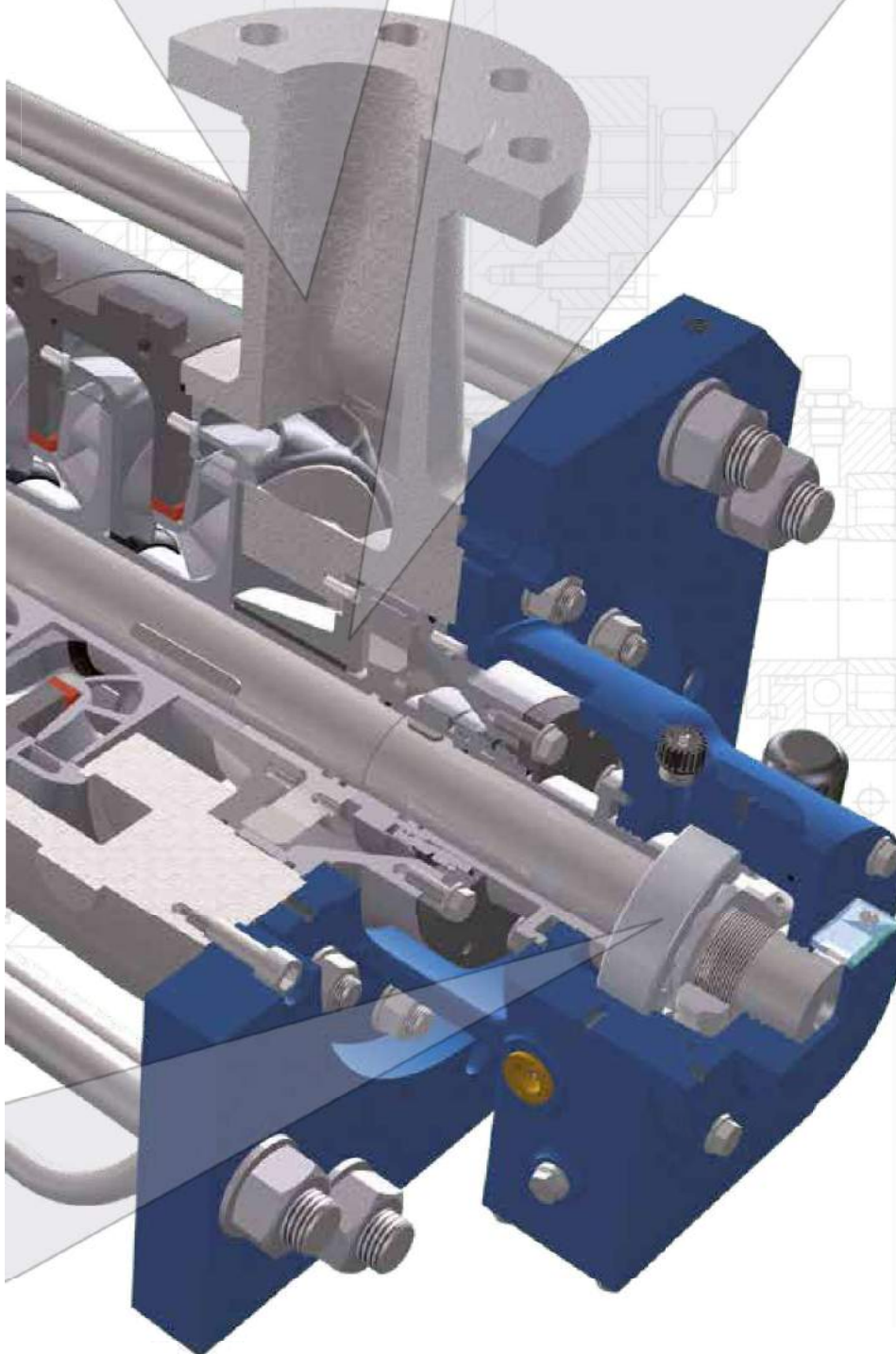


Discharge Casing

Optimized by numerical calculations to achieve best outflow conditions.

Balancing Device

Axial thrust compensation by balancing discs, piston or combination of both.



Kennlinie

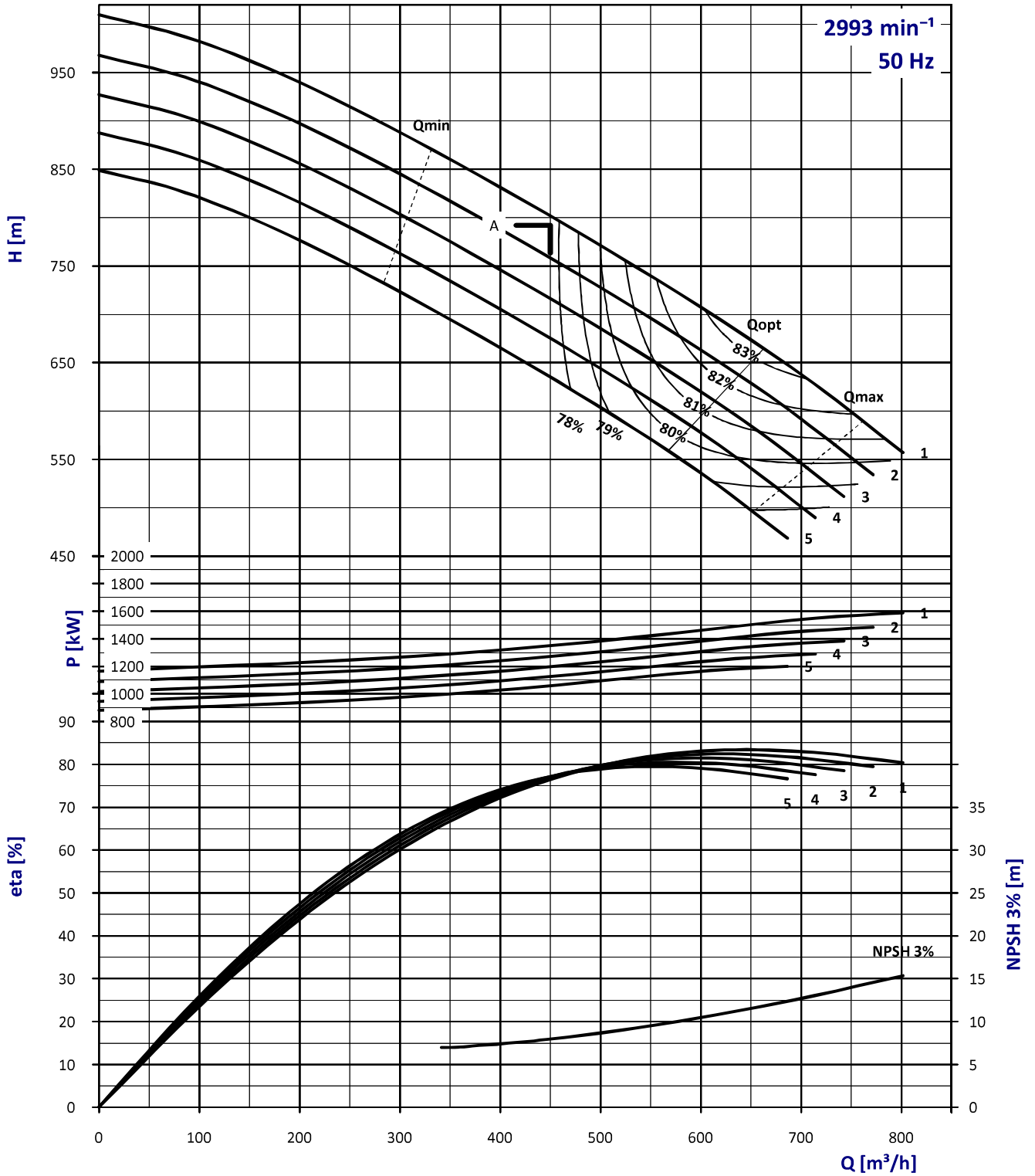
HPH 150-650 x 5



performance curve

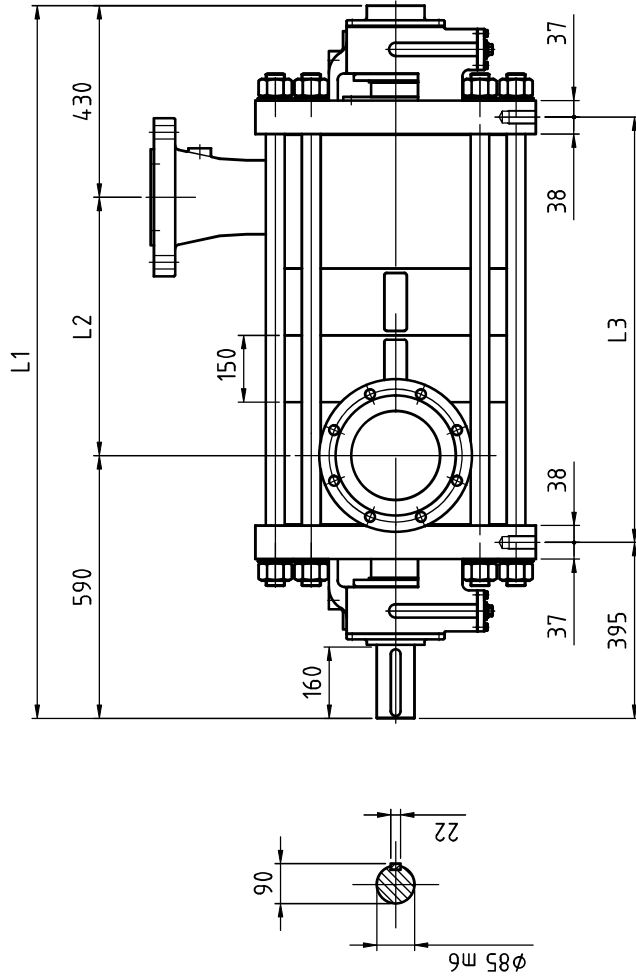
Kennlinie gültig für Flüssigkeiten mit der Dichte 1050 kg/m³ und einer Viskosität von bis zu 20 mm²/s [cSt]

Curve valid for fluids with a density of 1050 kg/m³ and a viscosity up to 20 mm²/s [cSt]

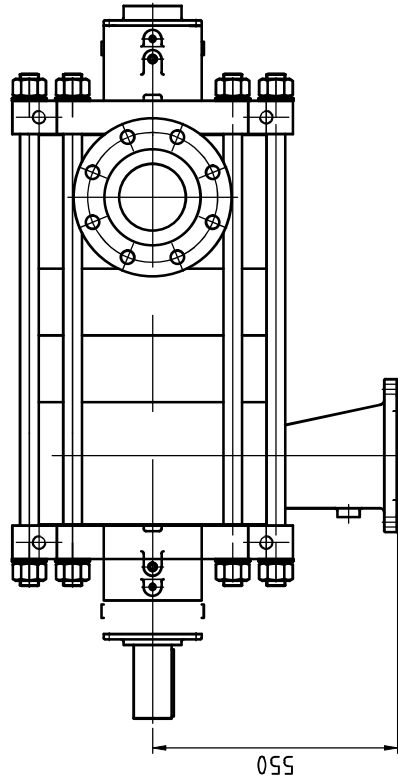


Kurve / curve	Nr. / no.	1	2	3	4	5	6	7	Blatt-Nr. / sheet-no.	K33088		
Laufgrad ϕ / impeller ϕ	[mm]	345	340	335	330	325			Rev.-Nr. / rev.-no.	1		
Drehzahl/speed	[min ⁻¹]	2993	2993	2993	2993	2993			Datum / date	13.09.07		
Umfangsgeschw. / tip speed	[m/s]	54,1	53,3	52,5	51,7	50,9			Status / status			
Betriebspunkt / operating point		A	B	C	D	E	F	G	H	Saugst. / suction br.	DN/PN	200/--
Förderstr. / flow	Q [m³/h]	600								Druckst. / discharge br.	DN/PN	150/--
Förderh. / head	H [m]	950								Schaufelzahl / no. of blades		
Wirk.-gr. / efficiency	eta [%]	79								Maßblatt/dimension sheet		
Leistung / power	P [kW]	1650								Lagerung / bearing frame	HP 150	
Laufgrad ϕ / impeller ϕ	ϕ [mm]	344								Stufenz. / no. of stages	5	
NPSHerf. / NPSH req.	NPSH [m]	7,9								Frequenz / frequency	Hz	50

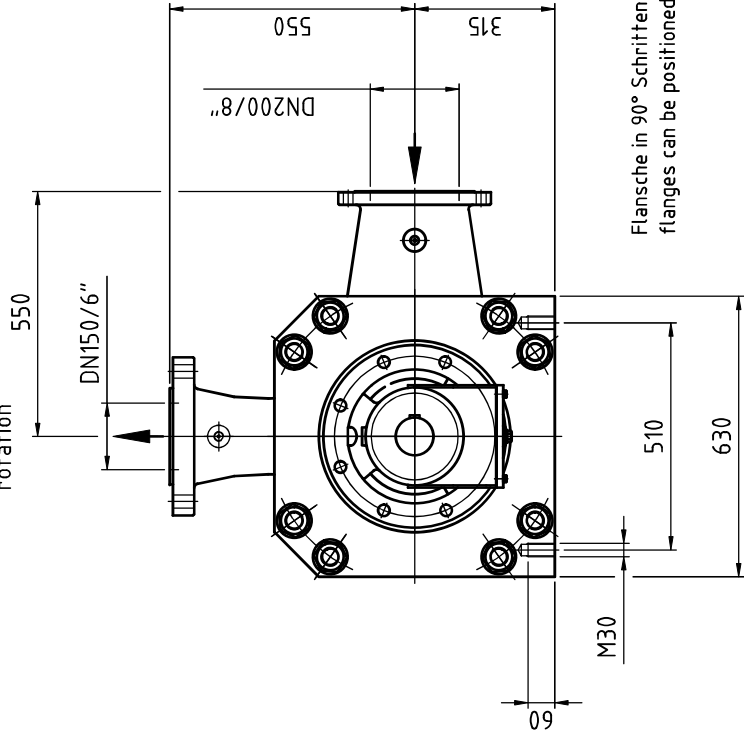
Maße in mm, unverbindlich
dimensions in mm, not binding



gezeichnet 3 Stufen
3 stages shown



Drehrichtung
rotation



Stufenzahl / number of stages

Maß / dimension	2	3	4	5	6	7
L 1	1450	1600	1750	1900	2050	2200
L 2	430	580	730	880	1030	1180
L 3	805	955	1105	1255	1405	1555
Massenträgheitsmoment Mass moment of inertia J (kgm ²)	1,072	1,554	2,036	2,518	3,000	3,482
Gewicht / weight (kg)	1475	1700	1925	2150	2375	2600

Tolerierung ISO 8015

Allgemein-
toleranz
ISO 2768 - mK

Werkstück-
kanten
DIN 6784

Maßstab 1:12

Masse

Artikel

Modellnummer

Bemerkung

Hochdruckkreislumppe / high-pressure pump
HPH 150 BB4 1 WE

Datum Name
Bearb. 22.11.2007 Becher
Gepr. 22.11.2007 Bremen
Norm
DIN ISO 5456-2

D DUCHTING
P U M P E N

03 Anschl.fab.entf. 05.01.22 Jere
Zust. Änderungen Datum Name

Blatt
-
Bl

M20923 - 3 - 03

Observe protection mark/Schutzvermerk ISO 8015

