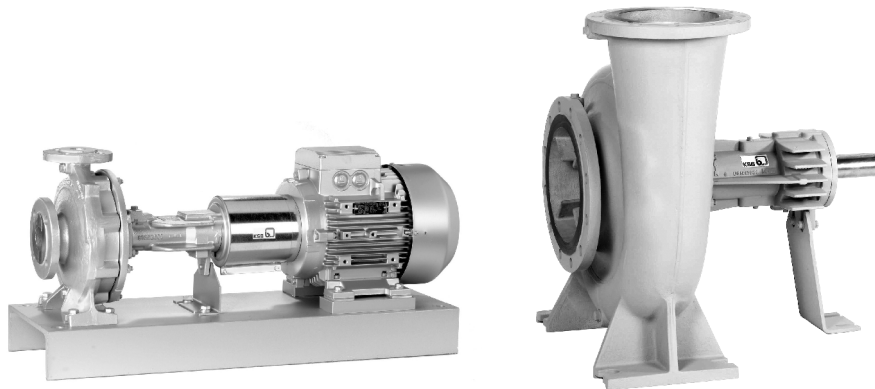


Thermal Oil / Hot Water Pumps



Automation products available:

- PumpExpert
- Hyamaster
- hyatronic

Fields of Application

Etanorm SYA/Etanorm-RSY pumps are used in heat transfer systems (DIN 4754) or in hot water circulation systems.

Operating Data

	Thermal oil	Hot water
Q	up to 1900 m ³ /h, 528 l/s	
H	up to 102 m	
t	-30 °C to +350 °C	up to +180 °C
p ₂ ¹⁾	up to 16 bar	

1) see pressure/temperature limits given on page 5 of type series booklet 1220.5-10

Design

Horizontal volute casing pump, single-stage (pump size 125-500/2 double-stage), with ratings and main dimensions to EN 733 up to DN 200 / extension Etanorm-RSY, with bearing bracket, in back pull-out design.

Volute casing and impeller or casing cover with replaceable wear rings.

Volute casing with integrally cast pump feet.

Bearings

Coupling side: grease-lubricated deep-groove ball bearing
Impeller side: product-lubricated carbon bearing

Shaft Seal

Mechanical seal to EN 12756.

Materials

Volute casing	Nodular cast iron JS1025 ²⁾
Discharge cover	Nodular cast iron JS1025 ²⁾
Shaft	Chrome steel 1.4021.05 HRC 55/1.4057
Impeller	Grey cast iron JL1040 ³⁾
Wear rings	Grey cast iron GG
Bearing bracket	Nodular cast iron JS1025 ²⁾

2) to EN 1563: GJS-400-18-LT

3) to EN 1561: GJL-250

Certification

Certified quality management ISO 9001.

Designation

EN(RSY) 80 - 160 66 (6239) S Y A^{*)}

Type series Etanorm
Pump size, e.g. 80 - 160
Actual impeller diameter - 100 mm,
e.g. 166 mm =
(Angular reduction of impeller vanes, e.g. Etanorm 80-160 actual diameter 162/139 mm)=
Casing material nodular cast iron JS1025²⁾
Thermal oil/Hot water variant
*) for Etanorm SYA only

Accessories

Drive⁴⁾

Surface-cooled KSB-IEC three-phase squirrel cage motor

Winding: up to 2.2 kW 220-240 V/380-420 V
for 3 kW and above 380-420 V/660-725 V

Design: IM B3

Enclosure: IP 55

Thermal class: F with temperature sensors:
3 PTC thermistors

Operating mode: continuous operation S1
or

surface-cooled three-phase squirrel cage motor as described above, but West European brand to KSB's choice.

Coupling

Flexible coupling with/without spacer sleeve

Contact guard

Coupling guard as per EN 294.

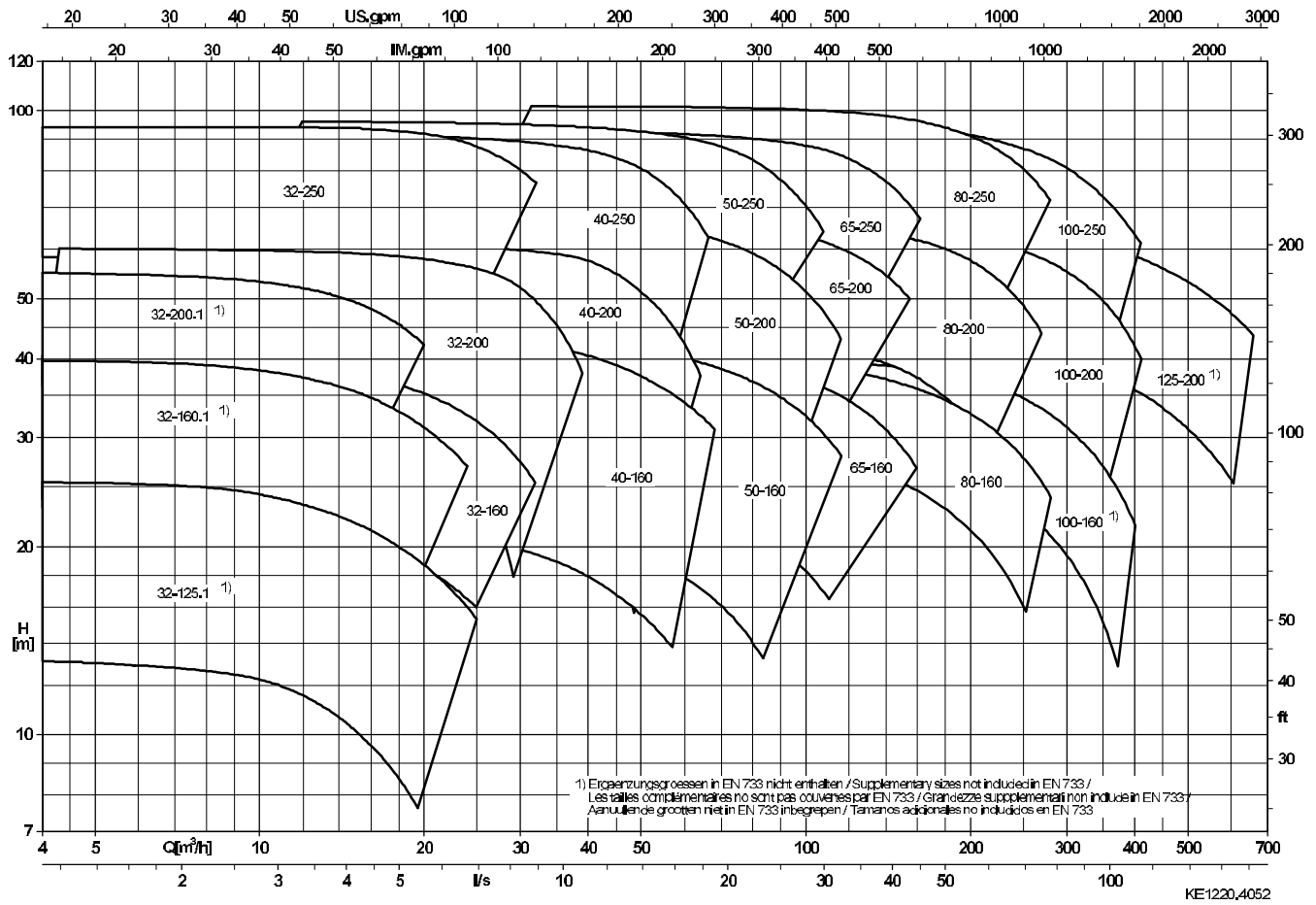
Baseplate

Folded sectional steel / steel plate; welded sectional steel for the complete unit (pump and motor) in torsion-resistant design

4) **⚠** If the electric motor is supplied by the customer, the cooling air **must** flow in axial direction towards the pump side!

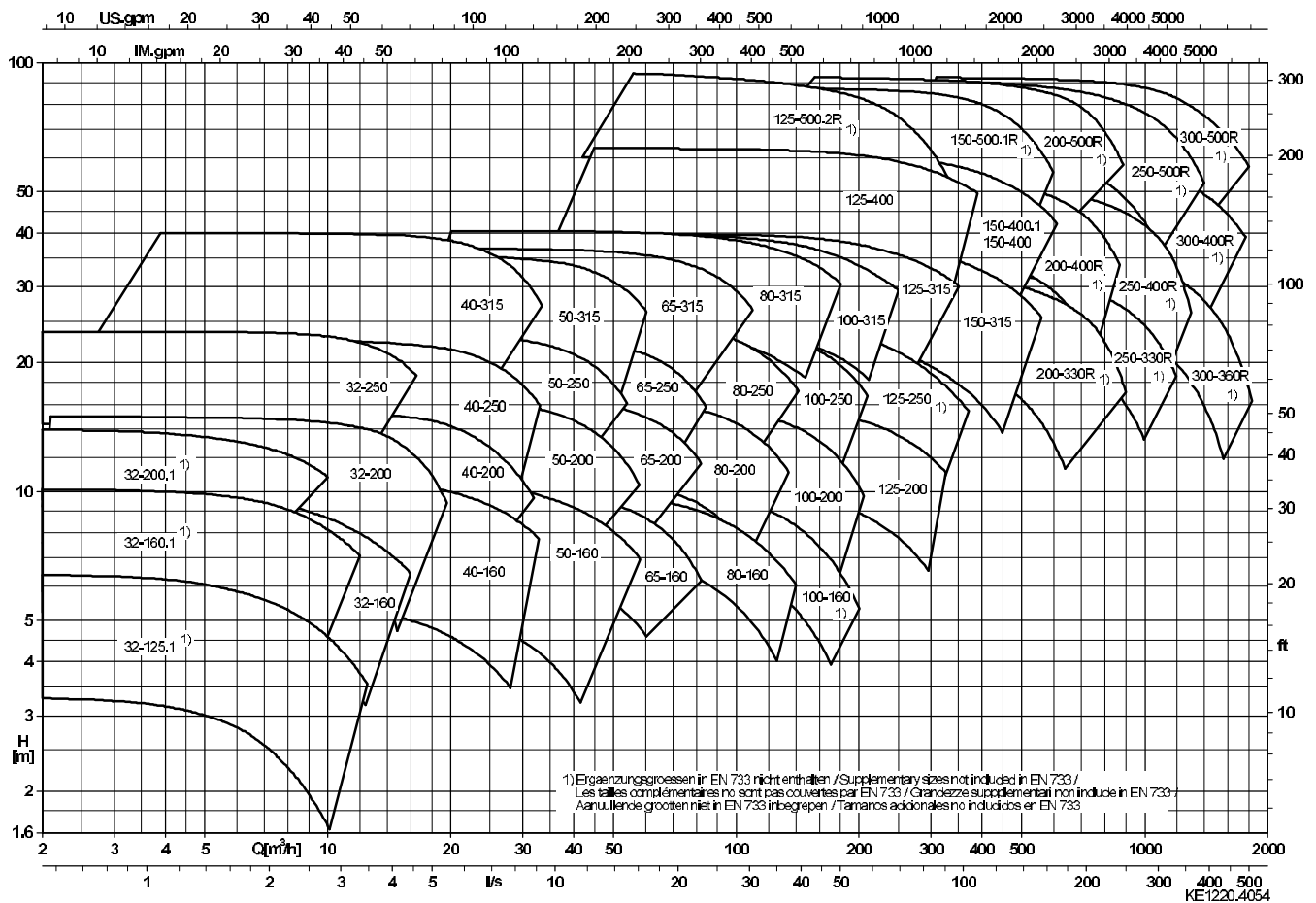
Air velocity ≥ 3 m/s, measured at the drive-end bearing end plate

n = 2900 1/min



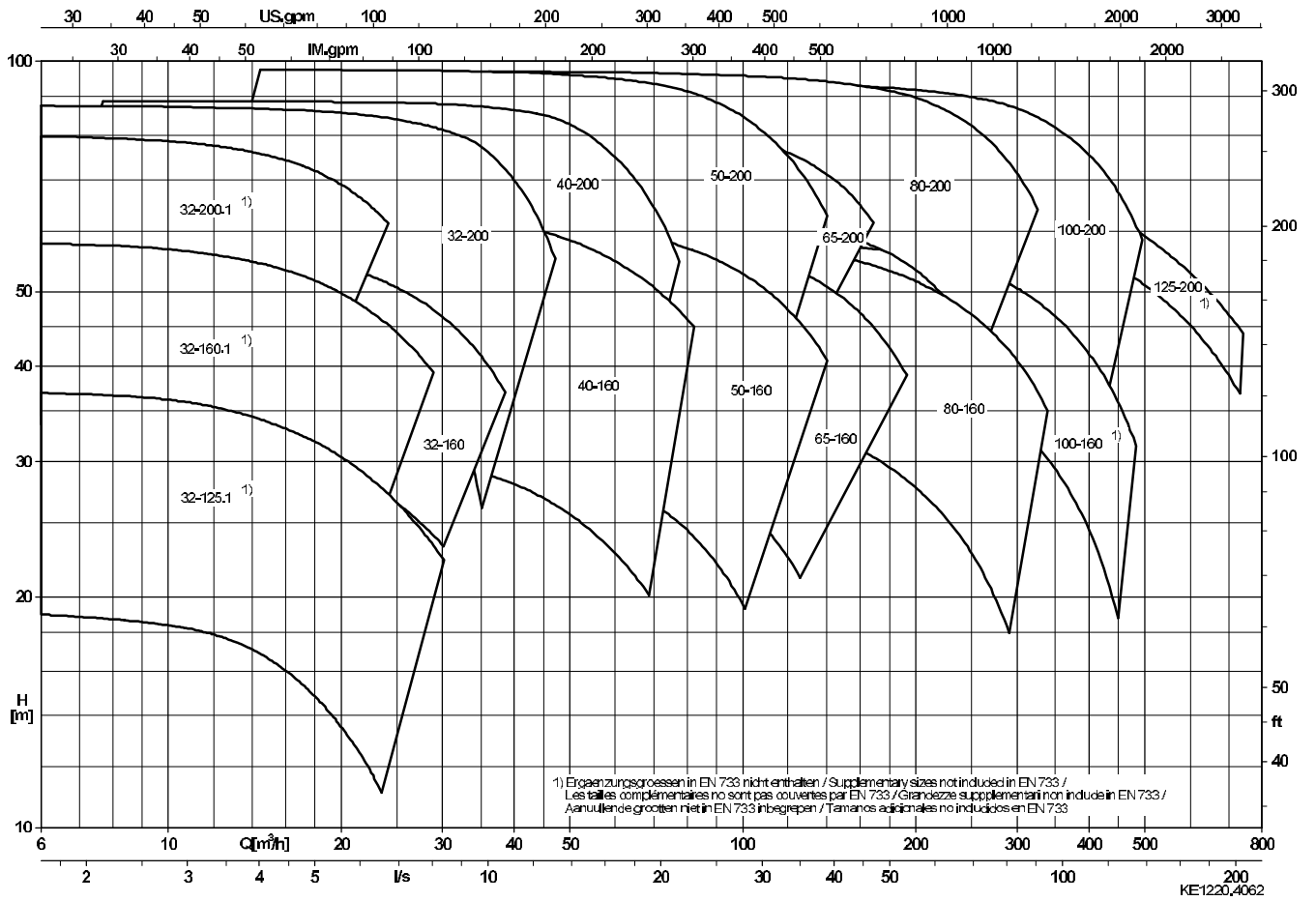
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n = 1450 1/min

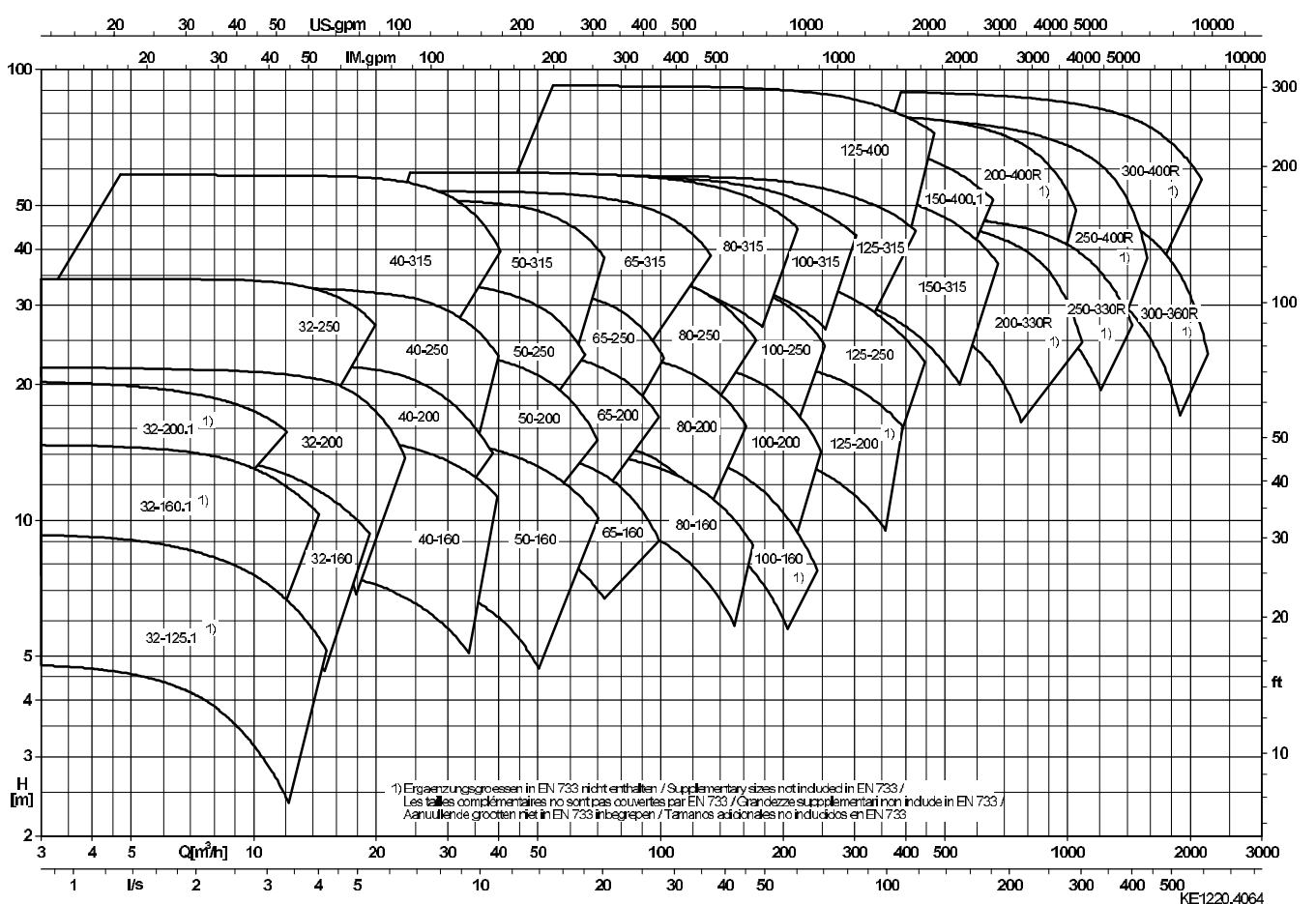


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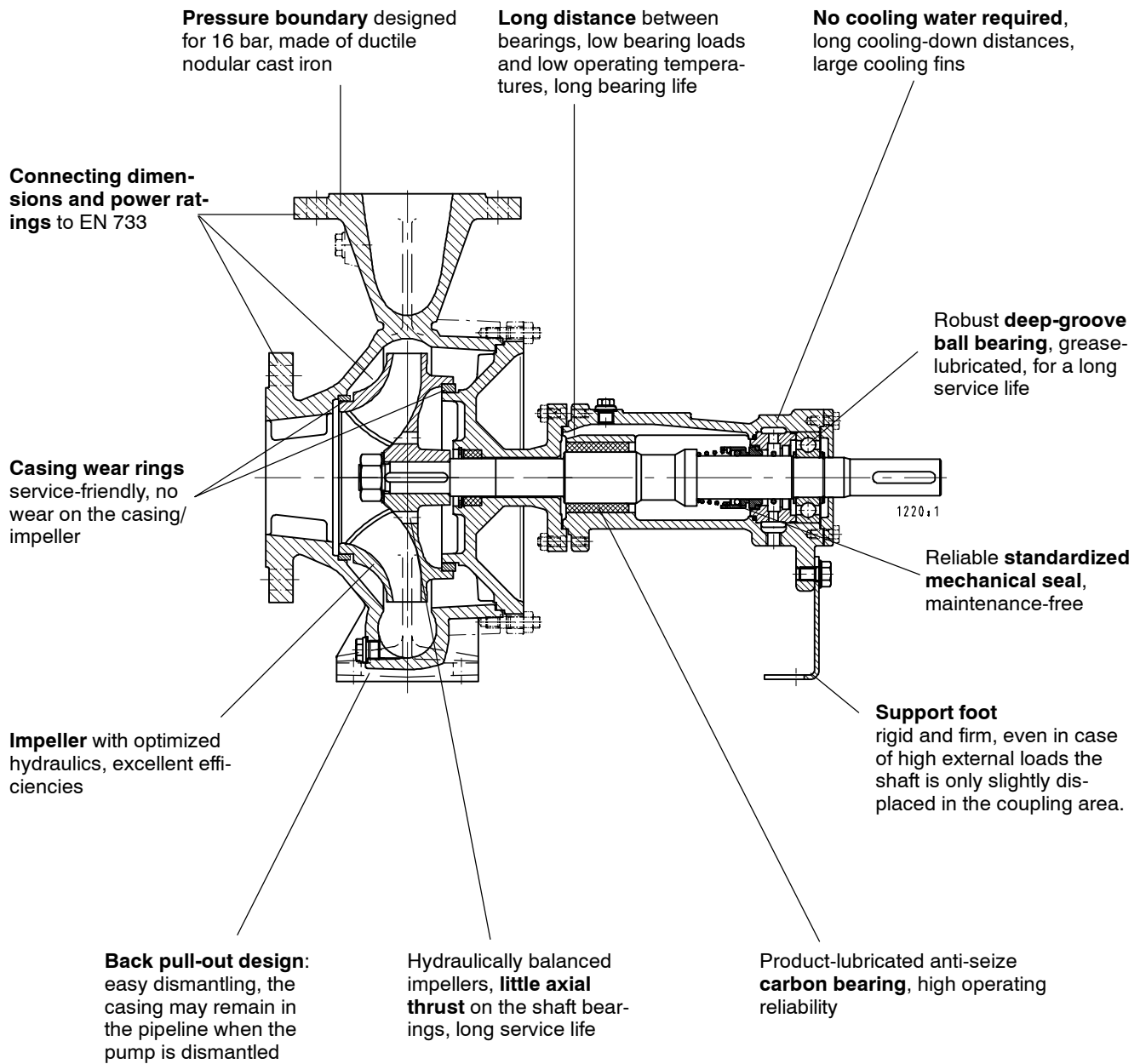
n = 3500 1/min



n = 1750 1/min



Benefits at a glance



Etanorm-RSY

