KWP

KWP non-clogging centrifugal pump

Automation products available:

- PumpExpert
- Hyamaster
- hyatronic

Fields of Application

For handling all kinds of pulps not liable to plait, as well as stock suspensions up to 5 % bone dry.
This pump is used in the chemical and process engineering industries, paper and pulp industries, sugar, food and beverages industries, in flue gas desulphurisation and coal upgrading and in the treatment of industrial effluents.

Design

Horizontal, radially split volute casing pump in back pull-out design, with impeller adapted to meet application requirements, single-flow, single-stage.

Special Features

- Reinforced, axially adjustable bearing assembly on all pumps
- Shaft seal: mechanical seal integrated into the casing cover, or gland packing
- Even cast iron pumps are supplied with pump internals (impeller and wear plate) made of wear-resistant ERN (nickel cast iron)

Designation

KWP K 100 - 250

Type series
Impeller type
Discharge nozzle DN
Nominal impeller dia.

Impeller types:
K = channel-type impeller
O = open multi-vane impeller
F = free-flow impeller

Operating Data

		Standard sizes	Supplementary sizes
Pump sizes	DN	40 up to 250	up to 800
Capacity	Q	up to 1300 m^3/h	11000 m^3/h
Head	H	up to 100 m	80 m
Operating pressure	p	up to 10 bar	
Operating temperature	t		
	for H	from -10 to +120 °C	
	for GN, GH, GC_2	from -10 to +200 °C	
	for C_2	from -40 to +280 °C	

Certification

Certified quality management ISO 9001.

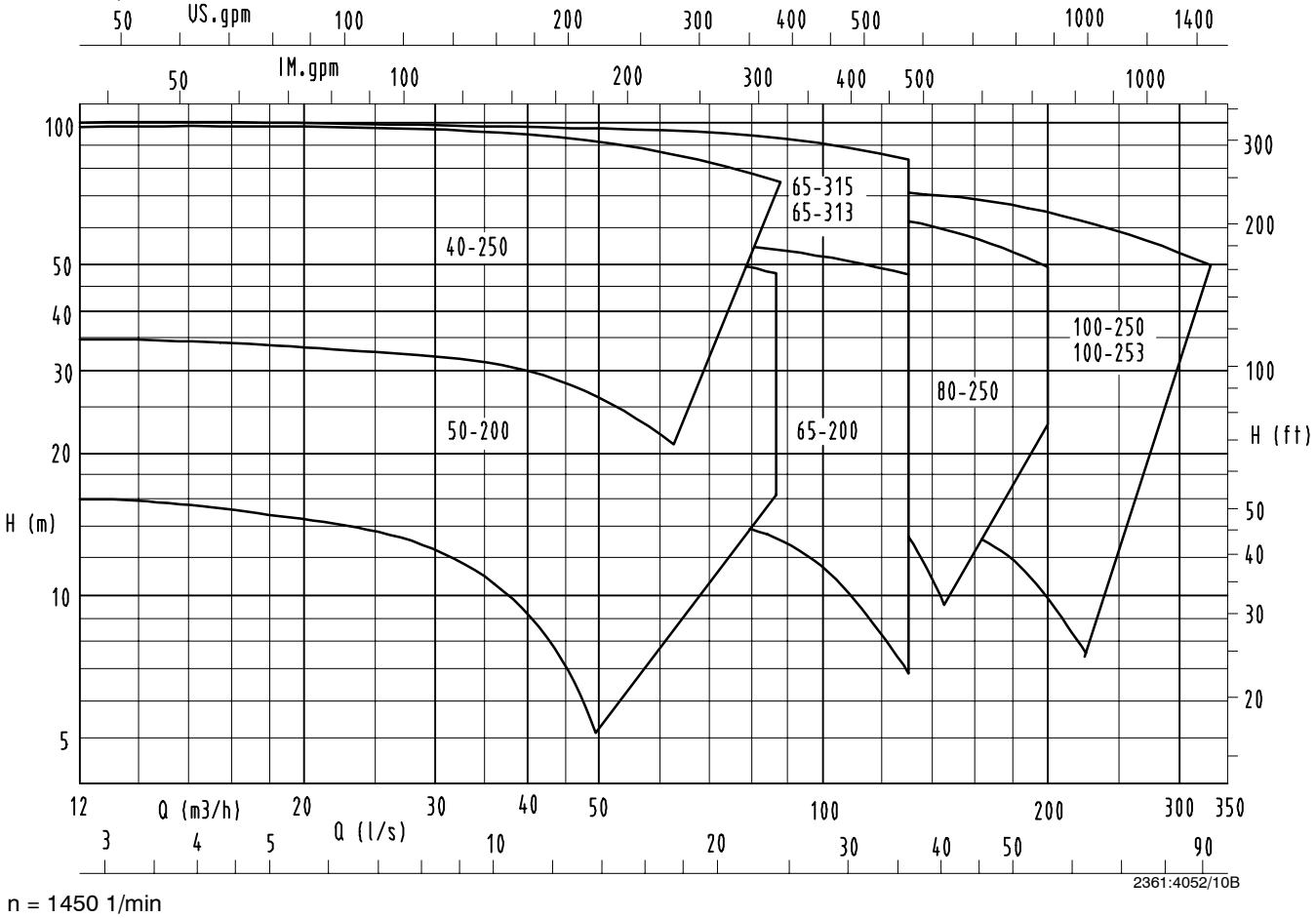
Materials

Part No.	Description	Material variant				
		GN	C_2	GC_2	H	GH
101	Pump casing	JL1040 1)	Noridur 1.4593	JL1040 1)	Norihard 2)	JL1040 1)
135.01	Wear plate, suction side	ERN	Noridur 1.4593	ERN	Norihard	Norihard
162	Suction cover	JL1040 1)	Noridur 1.4593	JL1040 1)	Norihard	Norihard
163	Discharge cover	JL1040 1)	Noridur 1.4593	JL1040 1)	Norihard	Norihard
210	Shaft	C45+N	C45+N	C45+N	C45+N	C45+N
230	Impeller	ERN	Noridur 1.4593	Noridur 1.4593	Norihard	Norihard
330	Bearing bracket	JL1040 1)	JL1040 1)	JL1040 1)	JL1040 1)	JL1040 1)
344	Bearing bracket lantern	JL1040 1)	JL1040 1)	JL1040 1)	JL1040 1)	JL1040 1)
451.01	Stuffing box housing	-	Noridur 1.4593	JL1040 1)	JL1040 1)3)	JL1040 1)3)
524.01	Shaft protecting sleeve (packing)	1.4122 HV500	1.4539	1.4122 HV500	1.4122 HV500	1.4122 HV500
524.01	Shaft protecting sleeve (mech. seal)	1.4539	1.4539	1.4539	1.4539	1.4539
906	Impeller screw	C22+N	Noridur 1.4593	C22+N	C22+N	C22+N

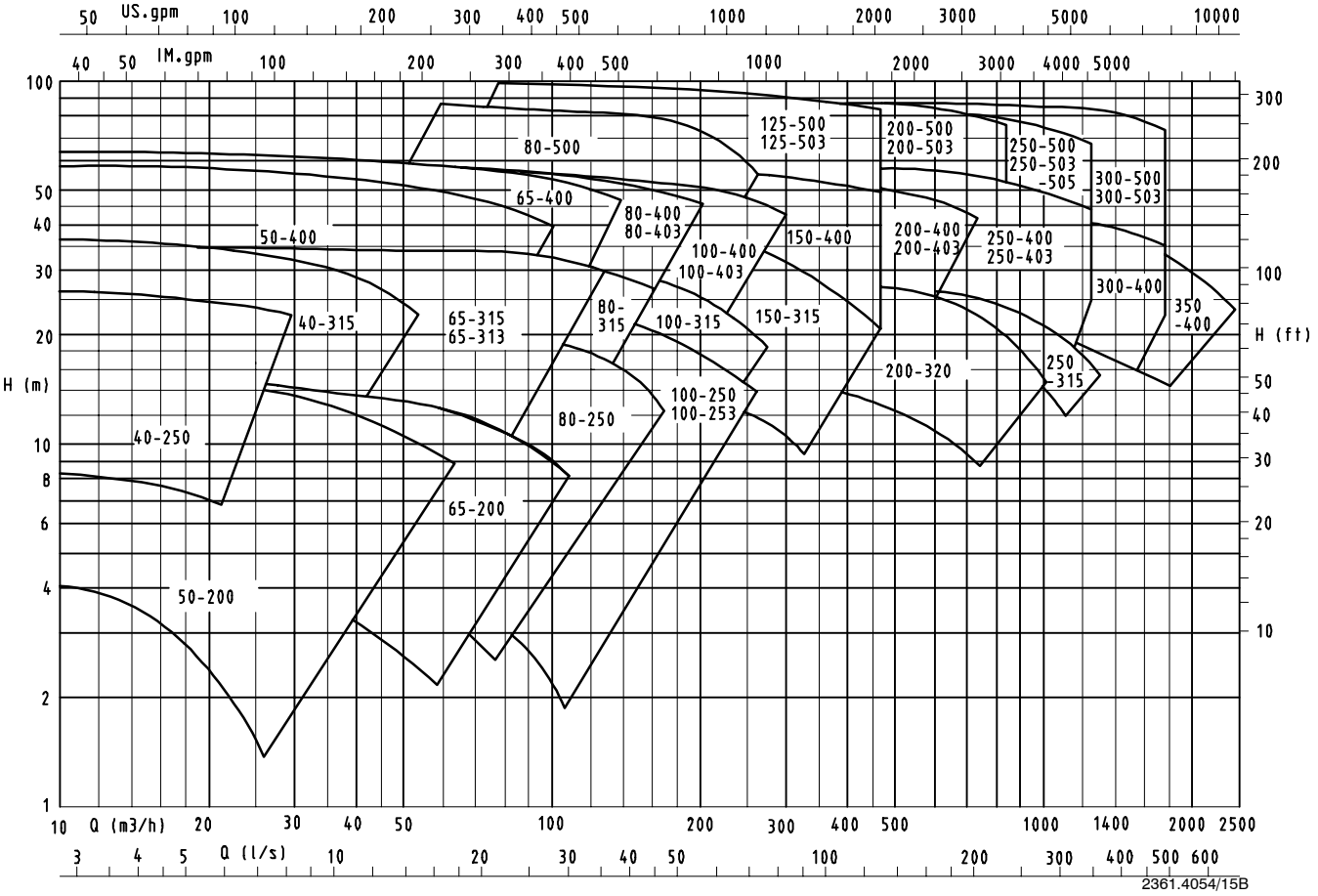
1) GJL-250 to EN 1561
2) without auxiliary connection holes (pressure gauge connection and casing drain)
3) together with NORIHARD discharge cover

Selection Charts KWPK

n = 2900 1/min

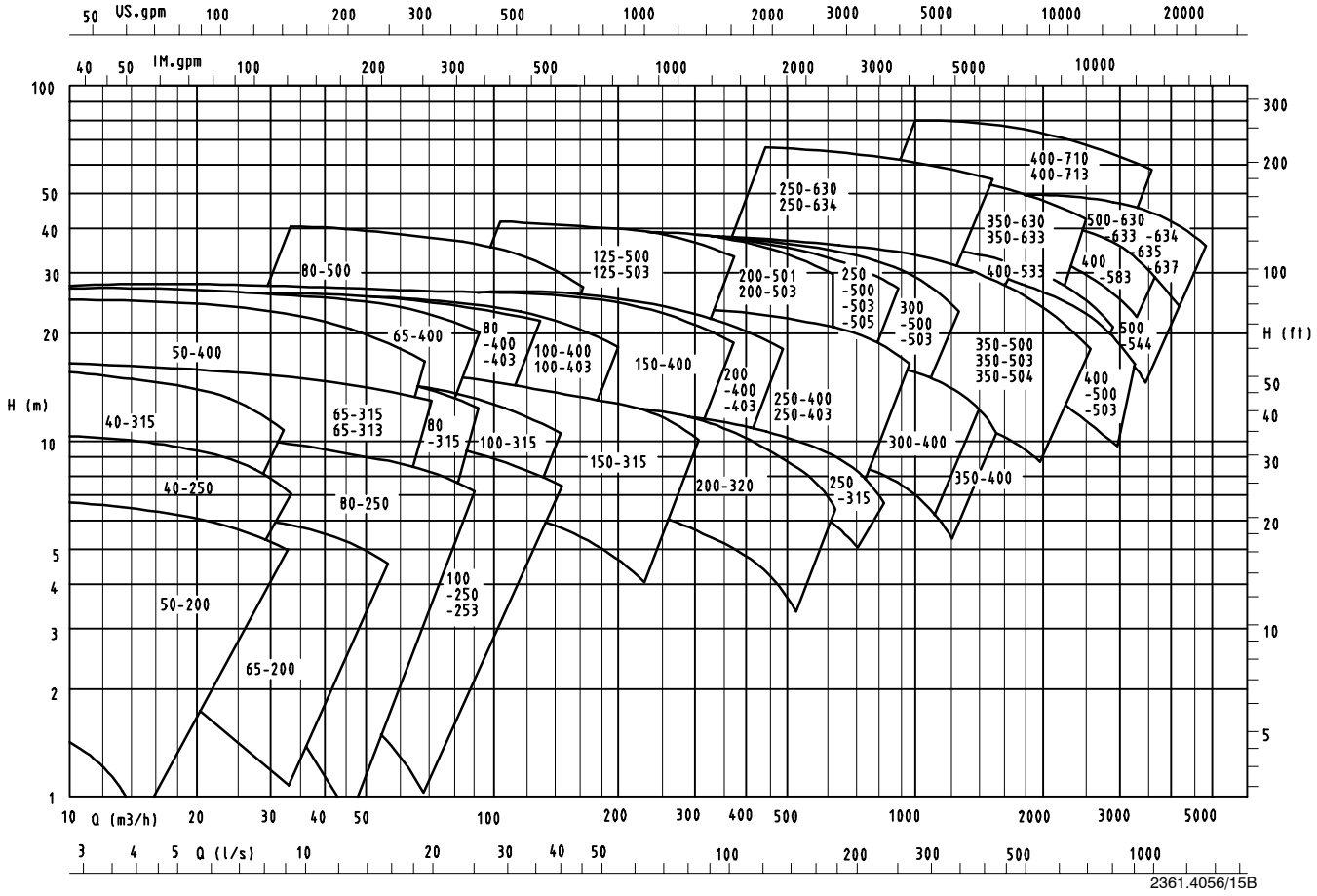


n = 1450 1/min



Selection Charts KWPK

n = 960 1/min



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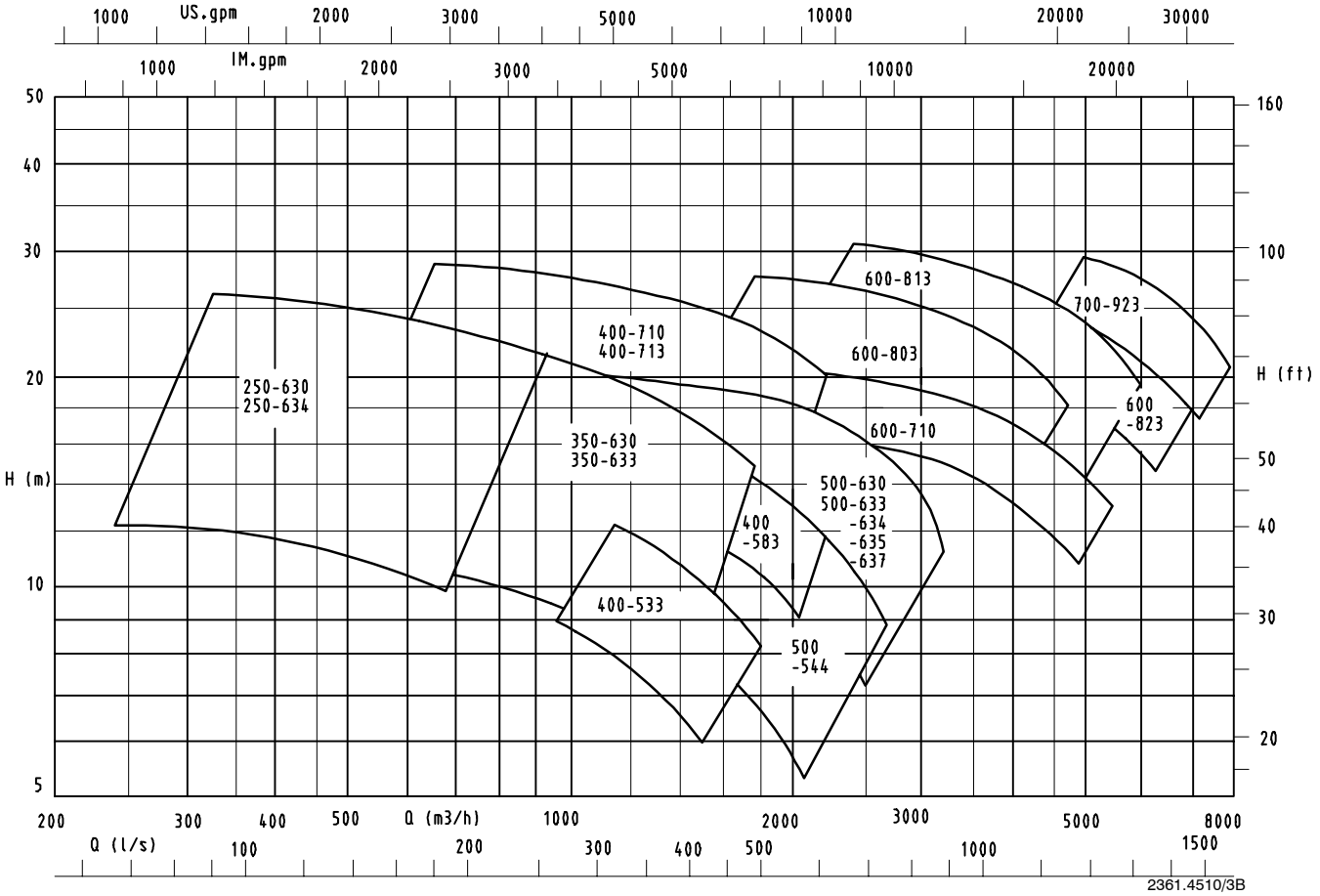
n = 580 1/min



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Design Features

Flange design in accordance with DIN/EN up to PN 16; other flange designs are possible.

Shaft not in contact with the medium handled (dry shaft); therefore no special materials required.

Back vanes for reduced axial thrust and shaft seal balancing.

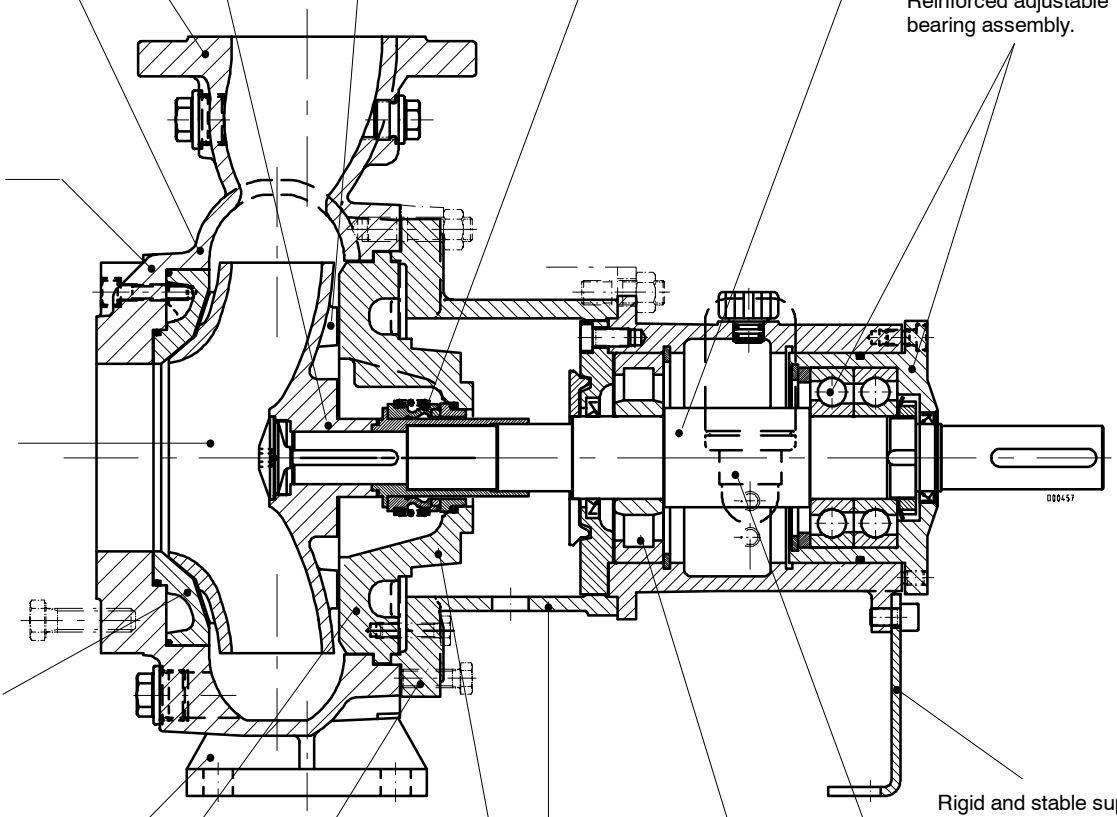
All mechanical seals integrated in the casing cover with conical seal chamber (A-type cover), therefore improved internal circulation, automatic venting and dead-end operation possible.

Rotor and bearings are dimensioned for a shaft deflection at the shaft seal below 0.05 mm and a bearing life of more than 17 500 operating hours.

On request, pump casing is available with inspection hole.

Reinforced adjustable bearing assembly.

Safe design of all pressure-retaining components due to quality casting with corrosion/wear allowance.

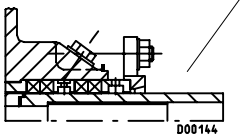


High efficiencies in the case of channel-type impeller design; impeller with front vanes and diagonal gap.

Pump casing with suction-side wear plate in wear-resistant diagonal gap design.

Rigid and stable support foot ensures that even in the case of high external forces the shaft is only slightly displaced in the coupling area.

Due to the back pull-out design, the casing may remain in the pipeline when the pump is dismantled.



Pump version with gland packing and special discharge cover.

Jacking screws facilitate dismantling.

Use of existing modular design components ensures small stock of spare parts and fast delivery.

Cylindrical roller bearing as movable bearing permits easy assembly and compensates possible thermal expansion of the shaft.

Constant-level oiler ensures constant lubrication of the bearings.

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