Standardised Water Pump / Thermal Oil and Hot Water Pump

50 Hz

Etanorm, Etanorm SYT
Etanorm V
Etabloc, Etabloc SYT
Etanorm-R, Etanorm-RSY

Characteristic Curves Booklet

Legal information/Copyright

Characteristic Curves Booklet 50 Hz

Contents

Centrifugal Pumps with Shaft Seal

Standardised Water Pump / Thermal Oil and Hot Water Pump

Etanorm/ SYT/ V; Etabloc/ SYT; Etanorm-R/-RSY

Etanorm

Etanorm SYT

Etanorm V

Etabloc

Etabloc SYT

Etanorm-R

Etanorm-RSY

General

Test class: Characteristic curves to ISO 9906 Class 3B

NPSH values
The NPSH values indicated in the characteristic curves correspond to a head drop of 3 %.

NPSH values in low-flow conditions
NPSH values for flow rates below Q = 0.3 x Q_{opt} can only be measured with intense technical efforts. Evidence of NPSH values in the low-flow range cannot be provided.

Density of the fluid handled
The indicated heads and performance data apply to pumped fluids with a density ρ = 1.0 kg/dm³ and a kinematic viscosity of up to 20 mm²/s max. If the density ≠ 1.0, the performance data must be multiplied by ρ. For viscosities >20 mm²/s the corresponding data for cold water has to be calculated and the impact on the pump's performance has to be determined.

Friction loss
For some design variants (reinforced bearings, specific shaft seals) friction losses must be considered and indicated as additional power requirement in the data sheet.

Correction factors
The characteristic curves apply to pumps with cast iron or bronze impellers.

- **Etanorm/SYT; Etabloc/SYT**
  When using an impeller made of cast steel materials the efficiency and pump power of the corresponding pump sizes have to be multiplied by the correction factors indicated in the characteristic curves.
- **Etanorm-R/-RSY**
  When using an impeller made of 1.4408 the efficiency percentages indicated in the characteristic curves have to be reduced by 2 % percent each.

Overview of sizes

Overview of sizes

Size	Type series							Speed [rpm]		
	Etanorm	Etanorm SYT	Etanorm V	Etabloc	Etabloc SYT	Etanorm-R	Etanorm-RSY	2900	1450	960
040-025-160	✗	✗	-	✗	✗	-	-	(⇨ Page 24)	(⇨ Page 58)	(⇨ Page 116)
040-025-200	✗	✗	-	✗	✗	-	-	(⇨ Page 25)	(⇨ Page 59)	(⇨ Page 117)
050-032-125.1	✗	✗	✗	✗	✗	-	-	(⇨ Page 26)	(⇨ Page 60)	(⇨ Page 118)
050-032-160.1	✗	✗	✗	✗	✗	-	-	(⇨ Page 27)	(⇨ Page 61)	(⇨ Page 119)
050-032-200.1	✗	✗	✗	✗	✗	-	-	(⇨ Page 28)	(⇨ Page 62)	(⇨ Page 120)
050-032-250.1	✗	-	✗	✗	-	-	-	(⇨ Page 29)	(⇨ Page 63)	(⇨ Page 121)
050-032-125	✗	-	✗	✗	-	-	-	(⇨ Page 30)	(⇨ Page 64)	(⇨ Page 122)
050-032-160	✗	✗	✗	✗	✗	-	-	(⇨ Page 31)	(⇨ Page 65)	(⇨ Page 123)
050-032-200	✗	✗	✗	✗	✗	-	-	(⇨ Page 32)	(⇨ Page 66)	(⇨ Page 124)
050-032-250	✗	✗	✗	✗	-	-	-	(⇨ Page 33)	(⇨ Page 67)	(⇨ Page 125)
065-040-125	✗	-	✗	✗	-	-	-	(⇨ Page 34)	(⇨ Page 68)	(⇨ Page 126)
065-040-160	✗	✗	✗	✗	✗	-	-	(⇨ Page 35)	(⇨ Page 69)	(⇨ Page 127)
065-040-200	✗	✗	✗	✗	✗	-	-	(⇨ Page 36)	(⇨ Page 70)	(⇨ Page 128)
065-040-250	✗	✗	✗	✗	-	-	-	(⇨ Page 37)	(⇨ Page 71)	(⇨ Page 129)
065-040-315	✗	✗	✗	✗	-	-	-	(⇨ Page 38)	(⇨ Page 72)	(⇨ Page 130)
065-050-125	✗	-	✗	✗	-	-	-	(⇨ Page 39)	(⇨ Page 73)	(⇨ Page 131)
065-050-160	✗	✗	✗	✗	✗	-	-	(⇨ Page 40)	(⇨ Page 74)	(⇨ Page 132)
065-050-200	✗	✗	✗	✗	✗	-	-	(⇨ Page 41)	(⇨ Page 75)	(⇨ Page 133)
065-050-250	✗	✗	✗	✗	-	-	-	(⇨ Page 42)	(⇨ Page 76)	(⇨ Page 134)
065-050-315	✗	✗	✗	✗	-	-	-	(⇨ Page 43)	(⇨ Page 77)	(⇨ Page 135)
080-065-125	✗	-	✗	✗	-	-	-	(⇨ Page 44)	(⇨ Page 78)	(⇨ Page 136)
080-065-160	✗	✗	✗	✗	✗	-	-	(⇨ Page 45)	(⇨ Page 79)	(⇨ Page 137)
080-065-200	✗	✗	✗	✗	✗	-	-	(⇨ Page 46)	(⇨ Page 80)	(⇨ Page 138)
080-065-250	✗	✗	✗	✗	-	-	-	(⇨ Page 47)	(⇨ Page 81)	(⇨ Page 139)
080-065-315	✗	✗	✗	✗	-	-	-	(⇨ Page 48)	(⇨ Page 82)	(⇨ Page 140)
100-080-160	✗	✗	✗	✗	✗	-	-	(⇨ Page 49)	(⇨ Page 83)	(⇨ Page 141)
100-080-200	✗	✗	✗	✗	-	-	-	(⇨ Page 50)	(⇨ Page 84)	(⇨ Page 142)
100-080-250	✗	✗	✗	✗	-	-	-	(⇨ Page 51)	(⇨ Page 85)	(⇨ Page 143)
100-080-315	✗	✗	✗	✗	-	-	-	(⇨ Page 52)	(⇨ Page 86)	(⇨ Page 144)
100-080-400	✗	-	✗	✗	-	-	-	-	(⇨ Page 87)	(⇨ Page 145)
125-100-160	✗	✗	✗	✗	-	-	-	(⇨ Page 53)	(⇨ Page 88)	(⇨ Page 146)
125-100-200	✗	✗	✗	✗	-	-	-	(⇨ Page 54)	(⇨ Page 89)	(⇨ Page 147)
125-100-250	✗	✗	✗	✗	-	-	-	(⇨ Page 55)	(⇨ Page 90)	(⇨ Page 148)
125-100-315	✗	✗	✗	✗	-	-	-	(⇨ Page 56)	(⇨ Page 91)	(⇨ Page 149)
125-100-400	✗	-	✗	✗	-	-	-	-	(⇨ Page 92)	(⇨ Page 150)
150-125-200	✗	✗	✗	✗	-	-	-	(⇨ Page 57)	(⇨ Page 93)	(⇨ Page 151)
150-125-250	✗	✗	✗	✗	-	-	-	-	(⇨ Page 94)	(⇨ Page 152)
150-125-315	✗	✗	✗	✗	-	-	-	-	(⇨ Page 95)	(⇨ Page 153)
150-125-400	✗	✗	✗	✗	-	-	-	-	(⇨ Page 96)	(⇨ Page 154)
200-150-200	✗	-	✗	✗	-	-	-	-	(⇨ Page 97)	(⇨ Page 155)
200-150-250	✗	-	✗	✗	-	-	-	-	(⇨ Page 98)	(⇨ Page 156)
200-150-315	✗	✗	✗	✗	-	-	-	-	(⇨ Page 99)	(⇨ Page 157)
200-150-400	✗	✗	✗	✗	-	-	-	-	(⇨ Page 100)	(⇨ Page 158)

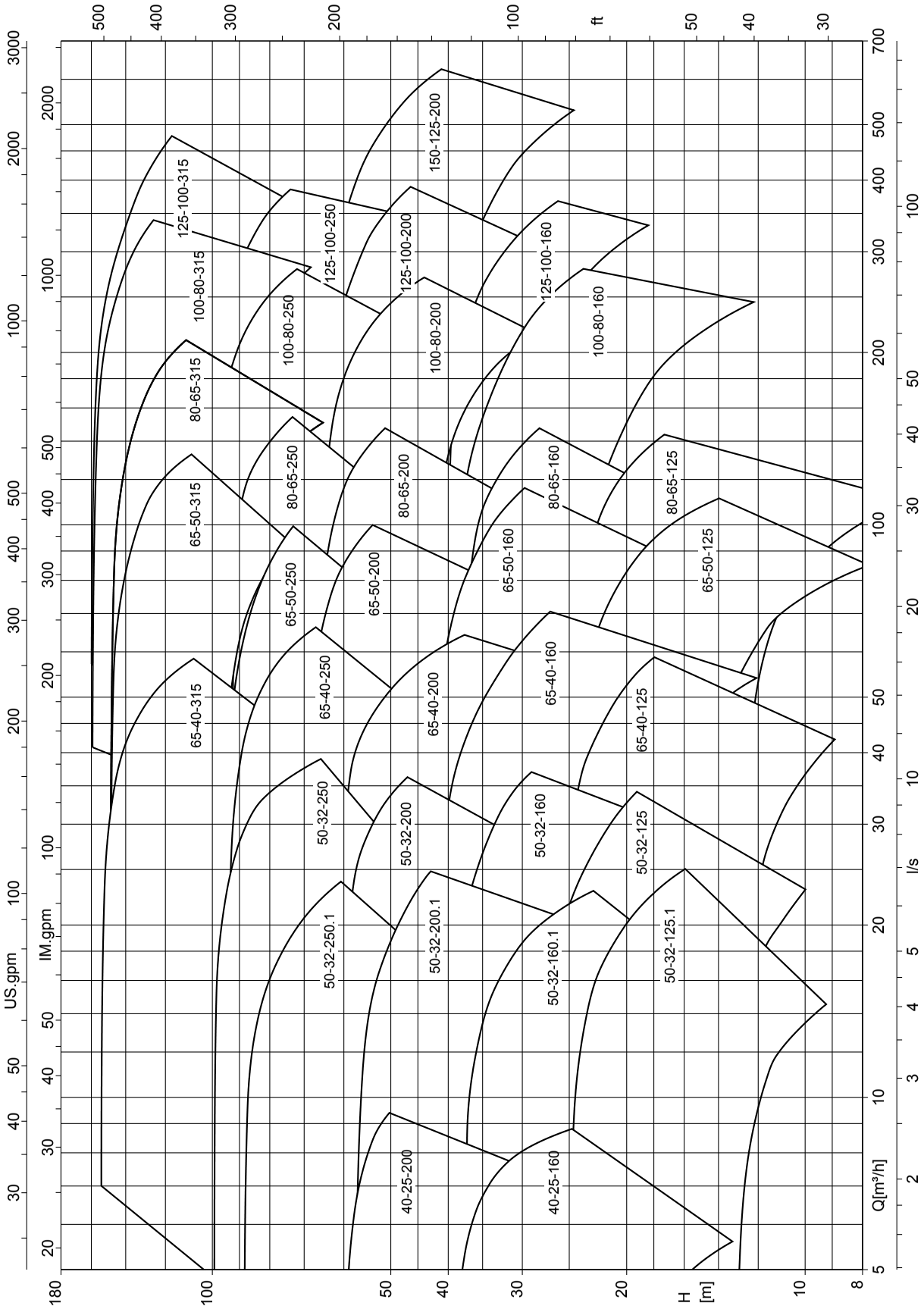
Overview of sizes

Size	Type series							Speed [rpm]		
	Etanorm	Etanorm SYT	Etanorm V	Etabloc	Etabloc SYT	Etanorm-R	Etanorm-RSY	2900	1450	960
125-500.2	-	-	-	-	-	✗	✗	-	(⇨ Page 101)	(⇨ Page 159)
150-500.1	-	-	-	-	-	✗	✗	-	(⇨ Page 102)	(⇨ Page 160)
200-250	-	-	-	-	-	✗	-	-	(⇨ Page 103)	(⇨ Page 161)
200-260	-	-	-	-	-	✗	-	-	(⇨ Page 104)	(⇨ Page 162)
200-330	-	-	-	-	-	✗	✗	-	(⇨ Page 105)	(⇨ Page 163)

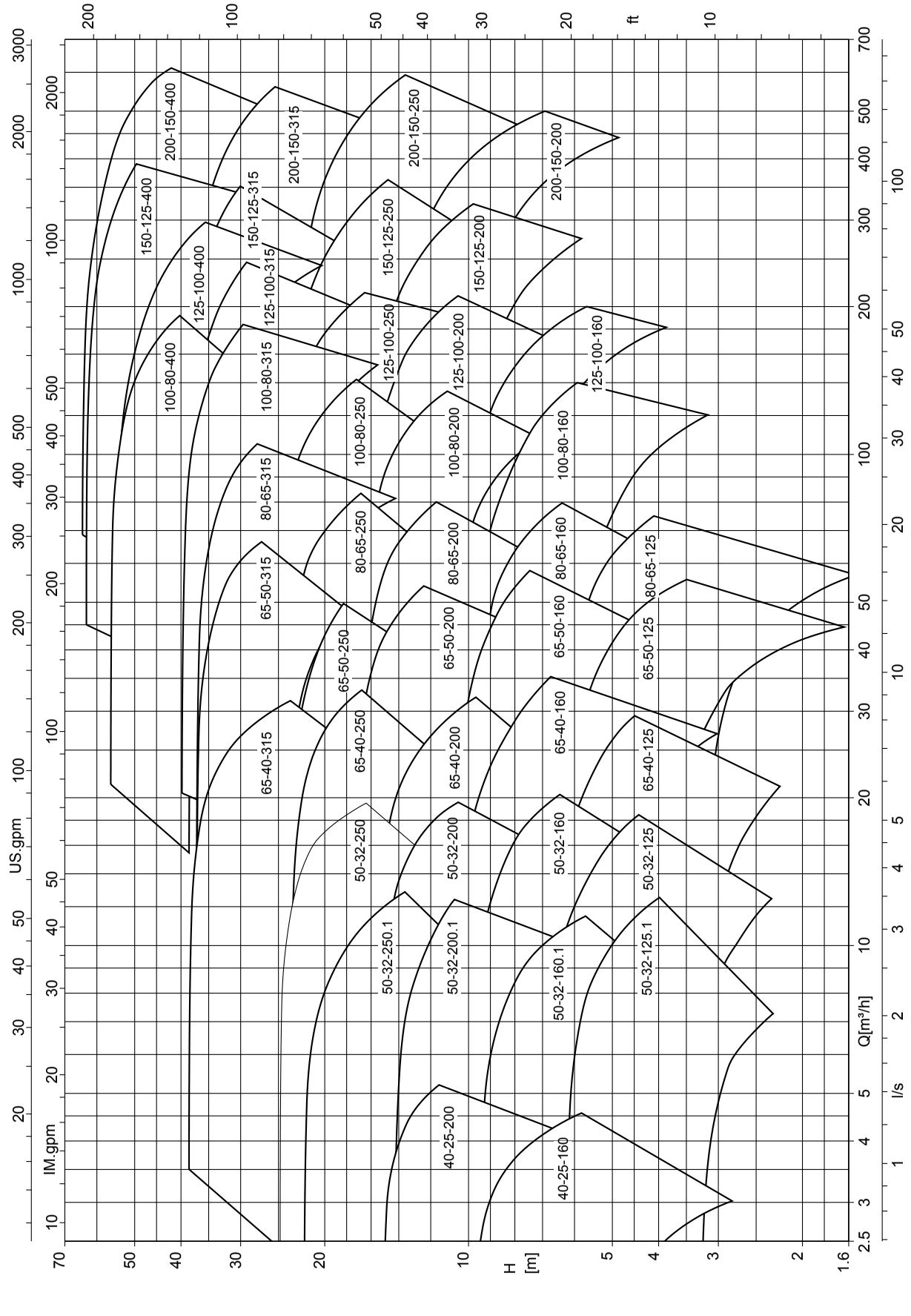
Size	Type series							Speed [rpm]		
	Etanorm	Etanorm SYT	Etanorm V	Etabloc	Etabloc SYT	Etanorm-R	Etanorm-RSY	2900	1450	960
200-400	-	-	-	-	-	✘	✘	-	(⇨ Page 106)	(⇨ Page 164)
200-500	-	-	-	-	-	✘	✘	-	(⇨ Page 107)	(⇨ Page 165)
250-300	-	-	-	-	-	✘	✘	-	(⇨ Page 108)	(⇨ Page 166)
250-330	-	-	-	-	-	✘	✘	-	(⇨ Page 109)	(⇨ Page 167)
250-400	-	-	-	-	-	✘	✘	-	(⇨ Page 110)	(⇨ Page 168)
250-500	-	-	-	-	-	✘	✘	-	(⇨ Page 111)	(⇨ Page 169)
300-340	-	-	-	-	-	✘	-	-	(⇨ Page 112)	(⇨ Page 170)
300-360	-	-	-	-	-	✘	✘	-	(⇨ Page 113)	(⇨ Page 171)
300-400	-	-	-	-	-	✘	✘	-	(⇨ Page 114)	(⇨ Page 172)
300-500	-	-	-	-	-	✘	✘	-	(⇨ Page 115)	(⇨ Page 173)

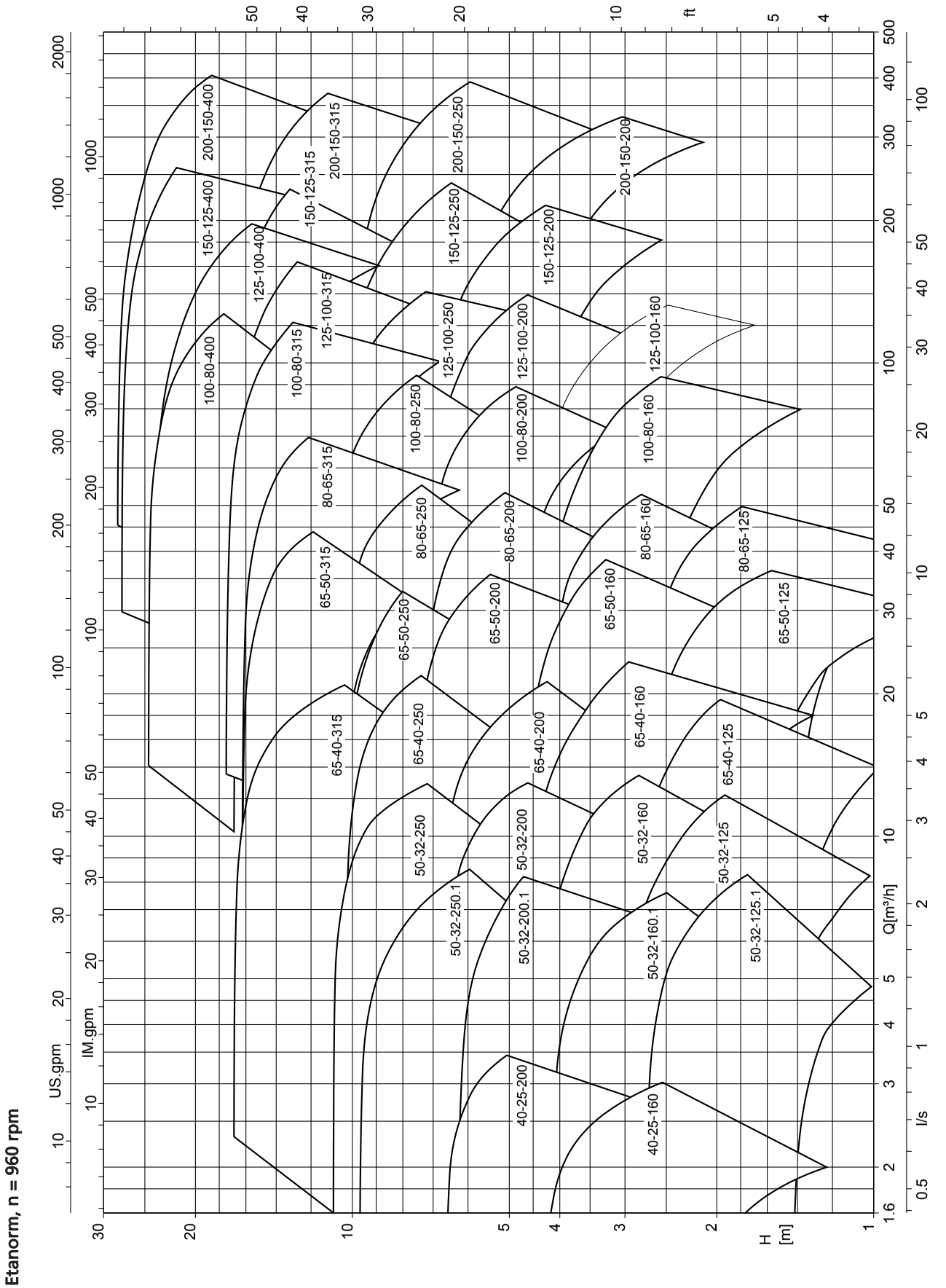
Selection charts

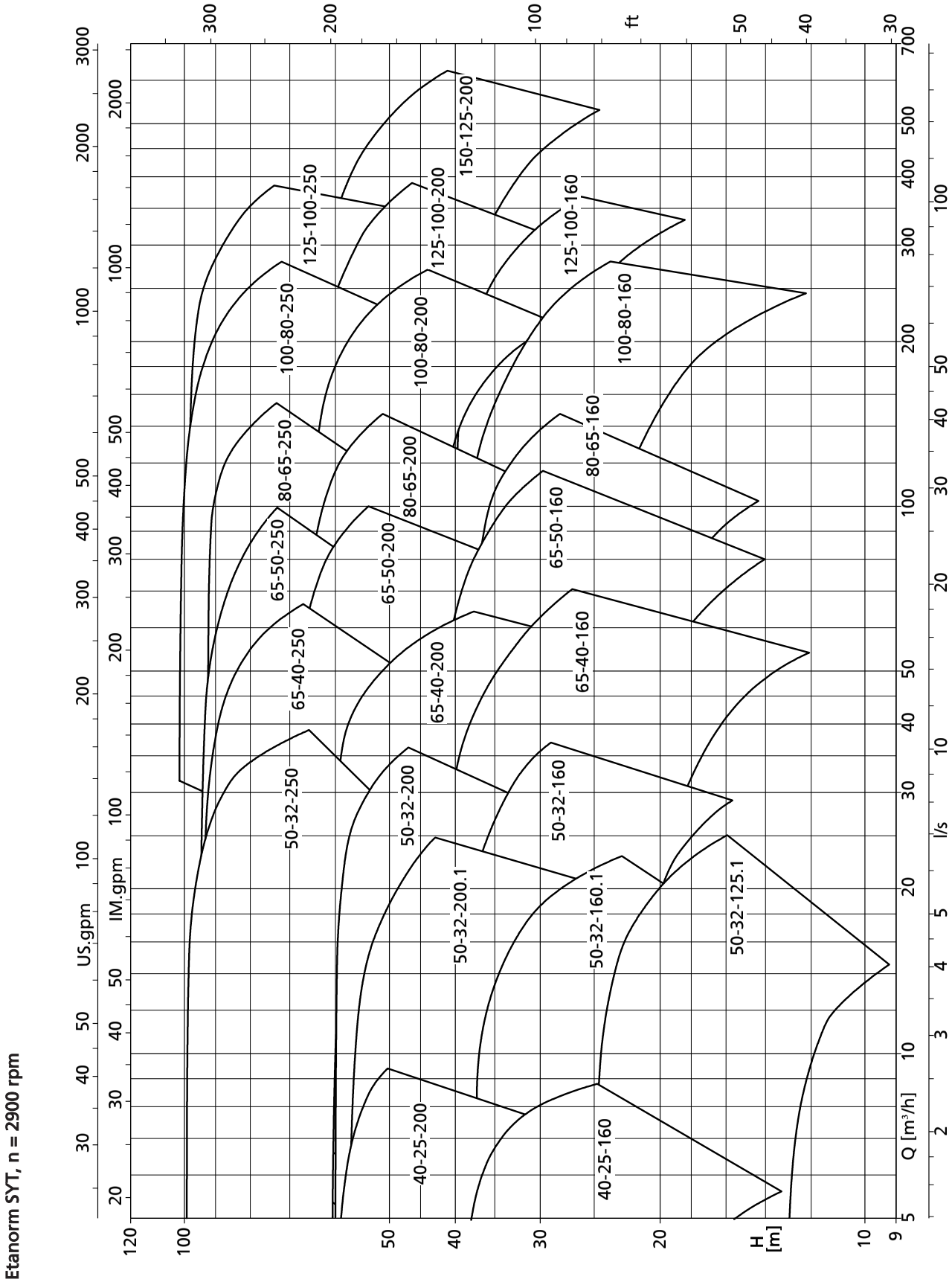
Etanorm, n = 2900 rpm



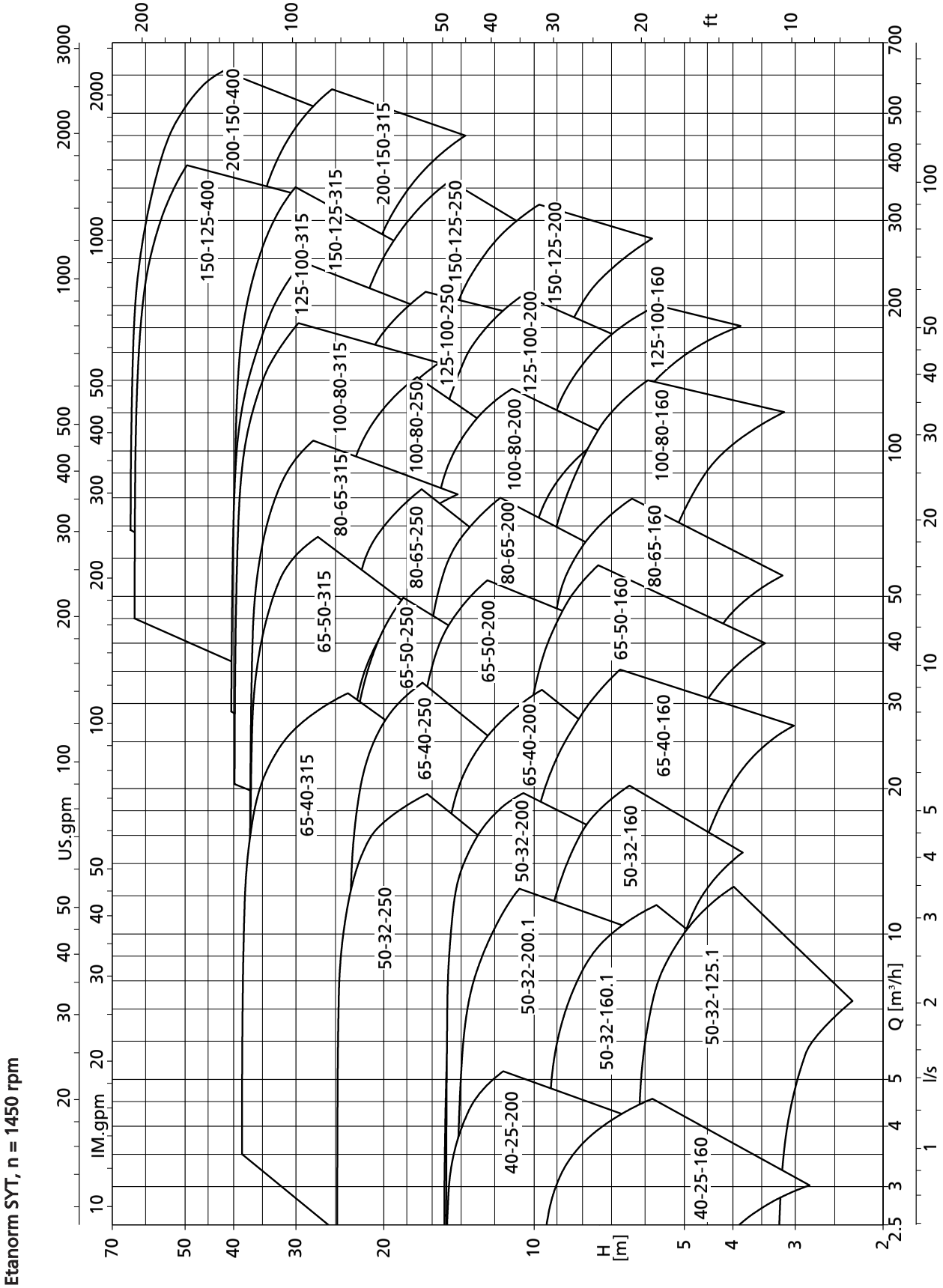
Etanorm, n = 1450 rpm



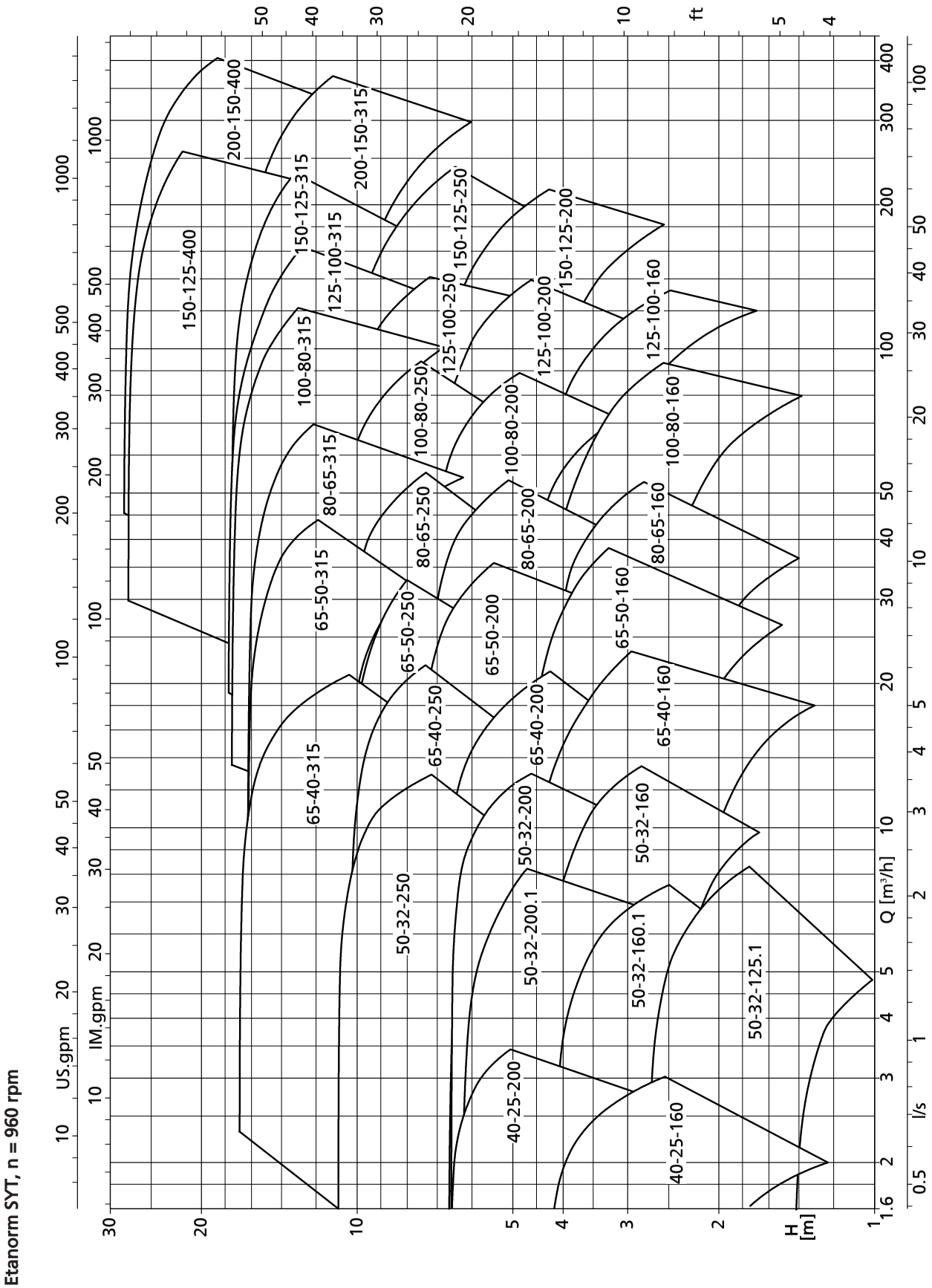

Etanorm, n = 960 rpm
US.gpm
IM.gpm
Q[m³/h]
l/s
H [m]
ft
200-150-400
150-125-400
125-100-400
100-80-400
200-150-315
150-125-315
125-100-315
100-80-315
80-65-315
65-50-315
65-40-315
200-150-250
150-125-250
125-100-250
100-80-250
80-65-250
65-50-250
65-40-250
50-32-250
50-32-250.1
200-150-200
150-125-200
125-100-200
100-80-200
80-65-200
65-50-200
65-40-200
50-32-200
50-32-200.1
125-100-160
100-80-160
80-65-160
65-50-160
65-40-160
50-32-160
50-32-160.1
80-65-125
65-50-125
65-40-125
50-32-125
50-32-125.1
40-25-200
40-25-160


Etanorm SYT, n = 2900 rpm
H [m]
ft
US.gpm
IM.gpm
Q [m³/h]
l/s
150-125-200
125-100-250
125-100-200
125-100-160
100-80-250
100-80-200
100-80-160
80-65-250
80-65-200
80-65-160
65-50-250
65-50-200
65-50-160
65-40-250
65-40-200
65-40-160
50-32-250
50-32-200
50-32-160
50-32-200.1
50-32-160.1
50-32-125.1
40-25-200
40-25-160

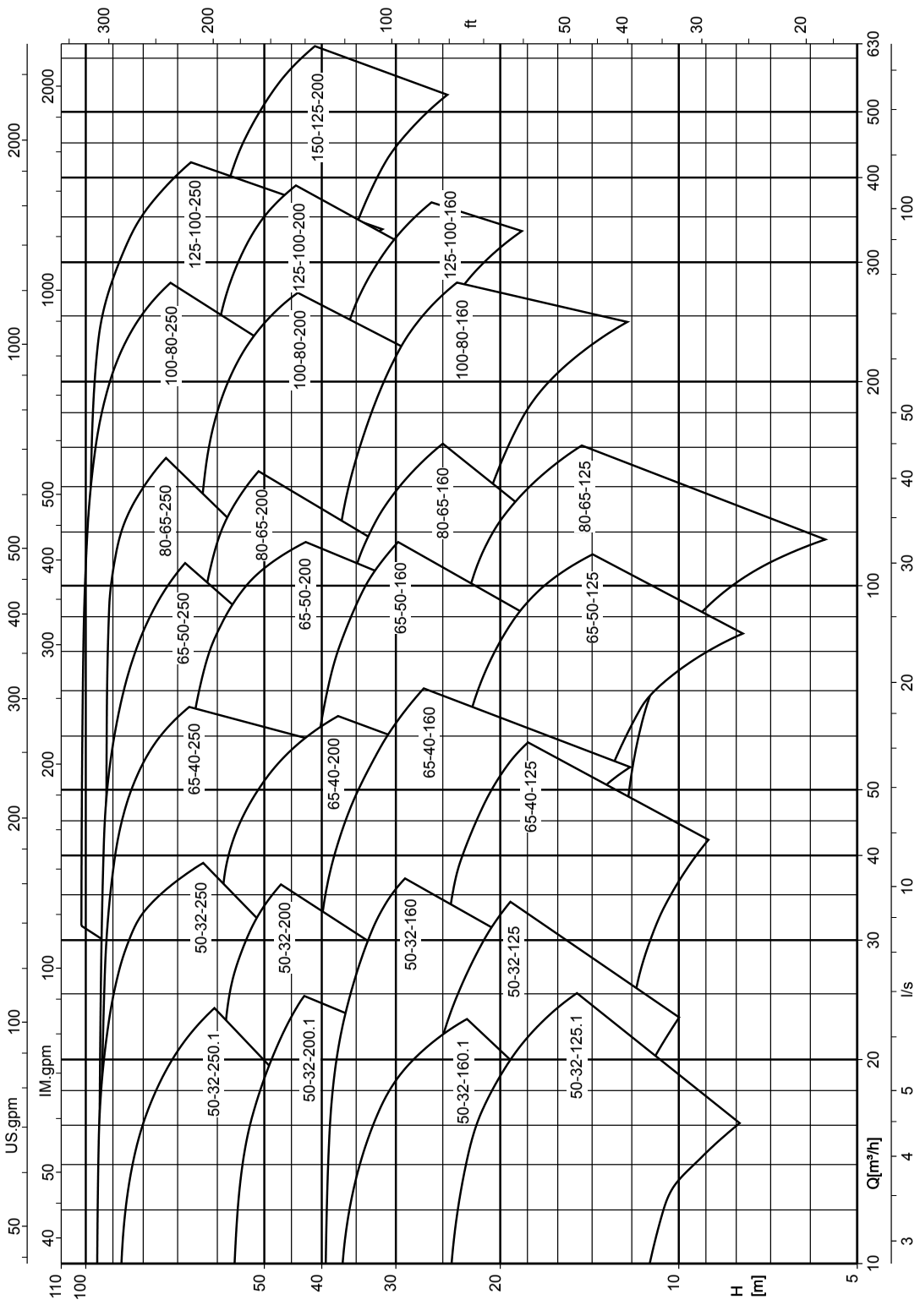
Etanorm SYT, n = 1450 rpm



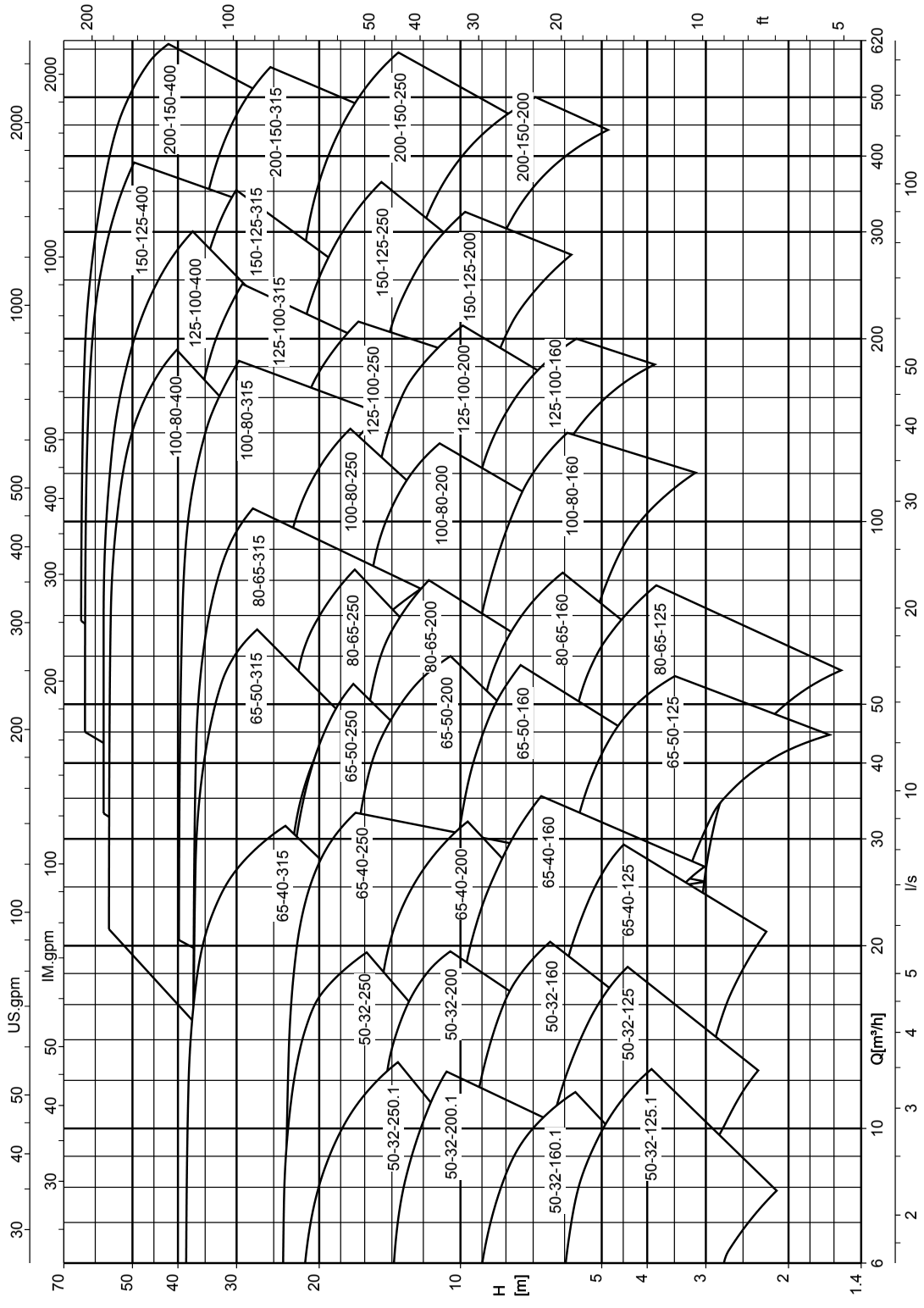
Etanorm SYT, n = 960 rpm



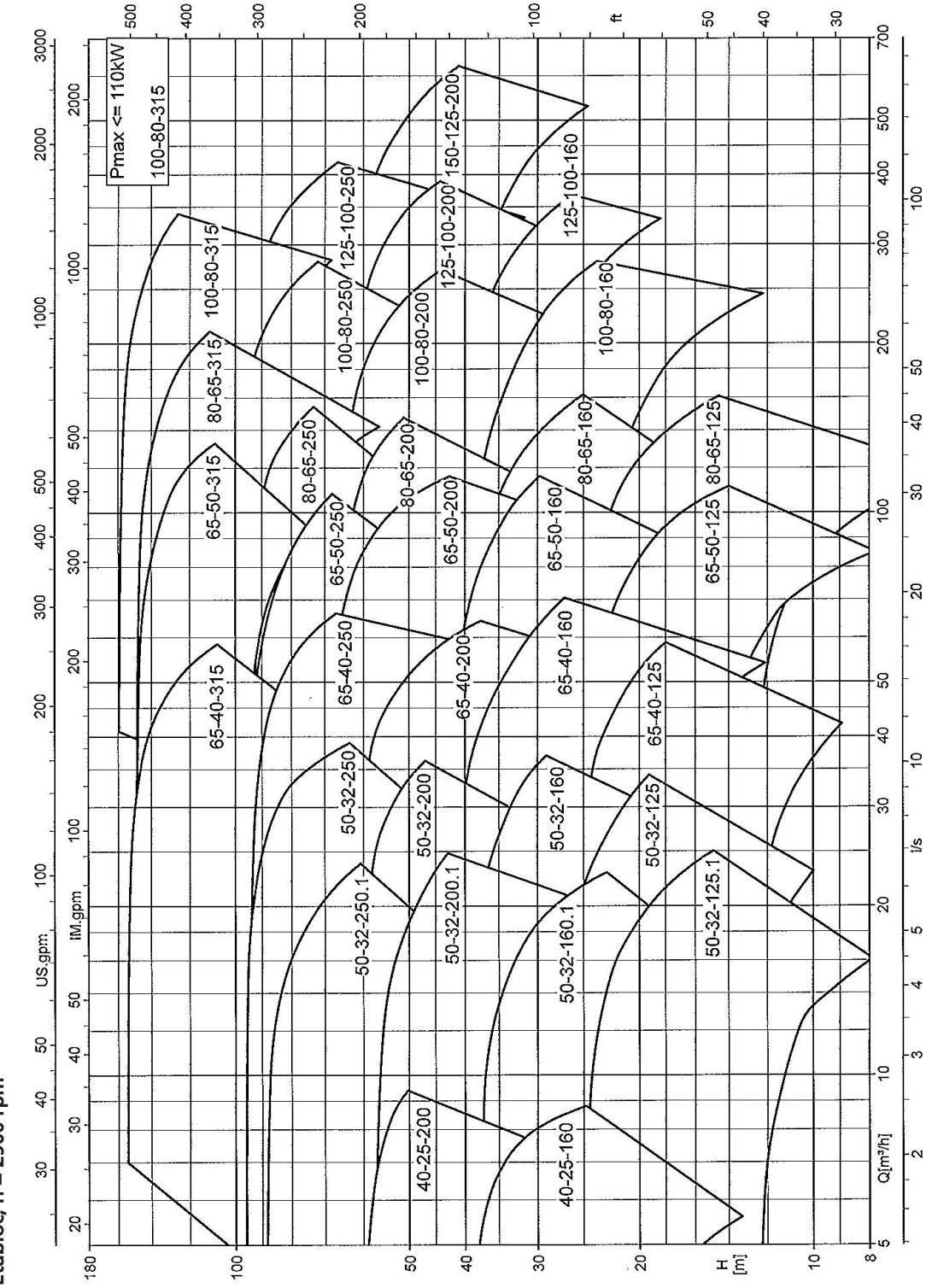
Etanorm V, n = 2900 rpm



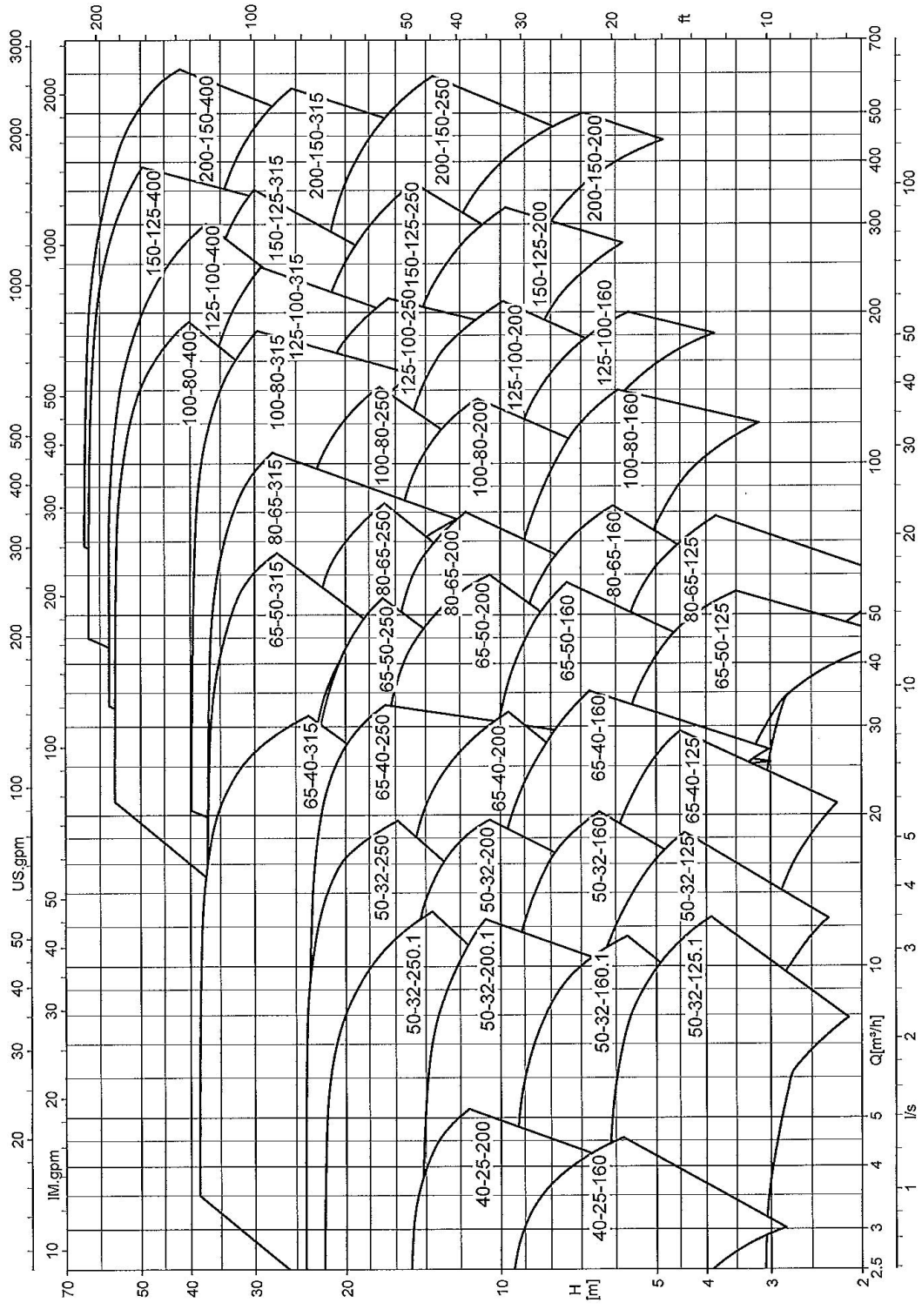
Etanorm V, n = 1450 rpm



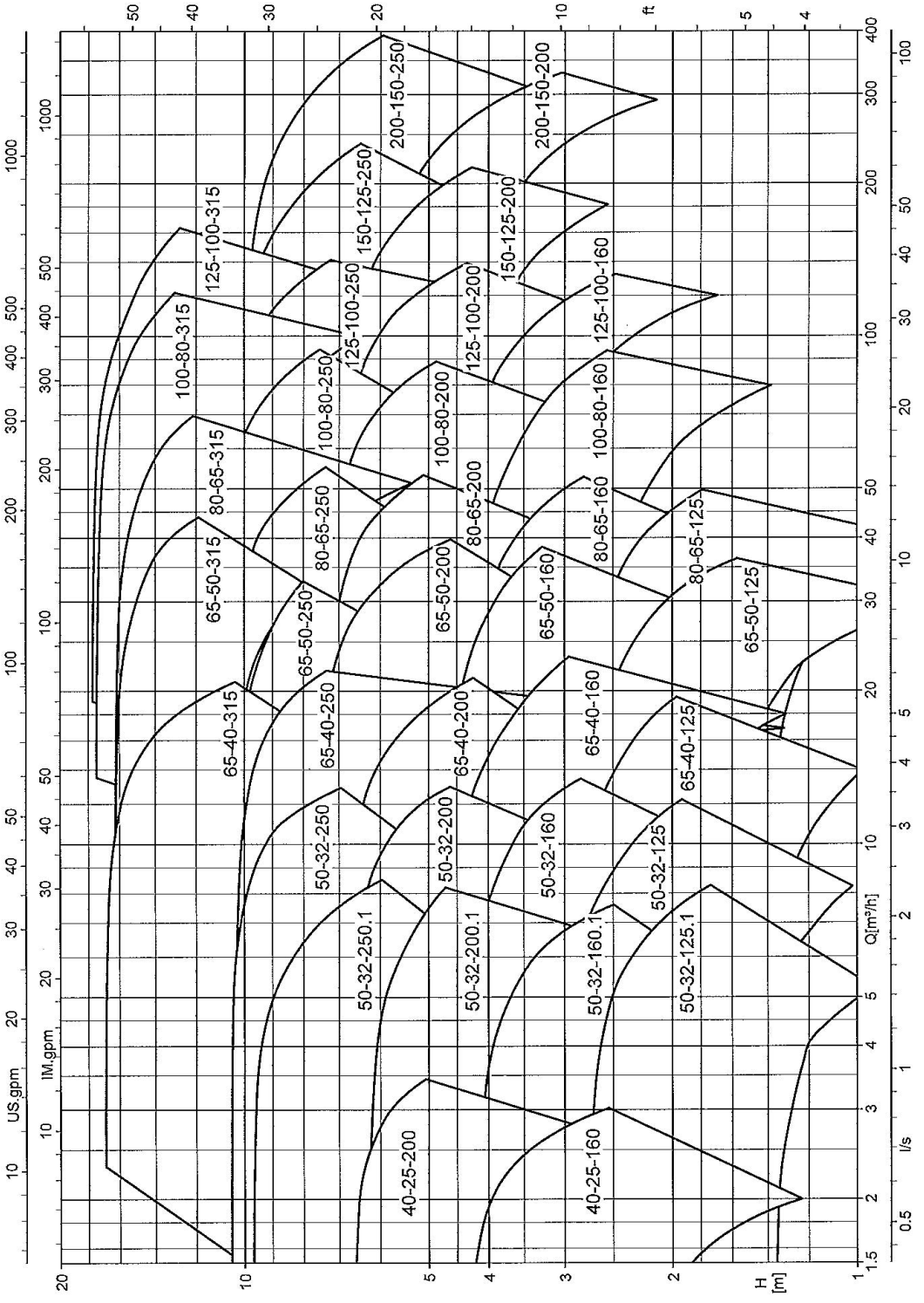
Etabloc, n = 2900 rpm

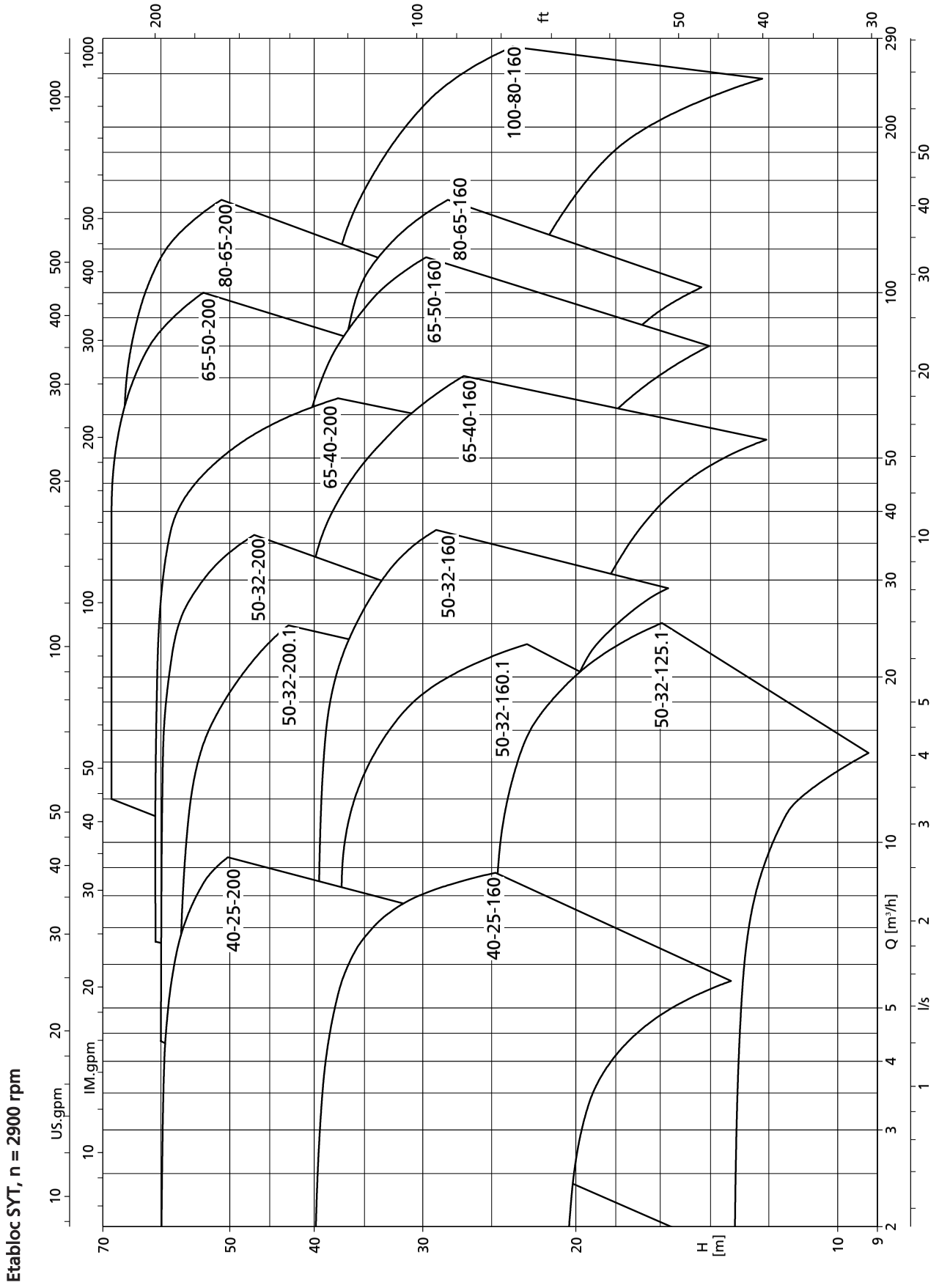


Etabloc, n = 1450 rpm

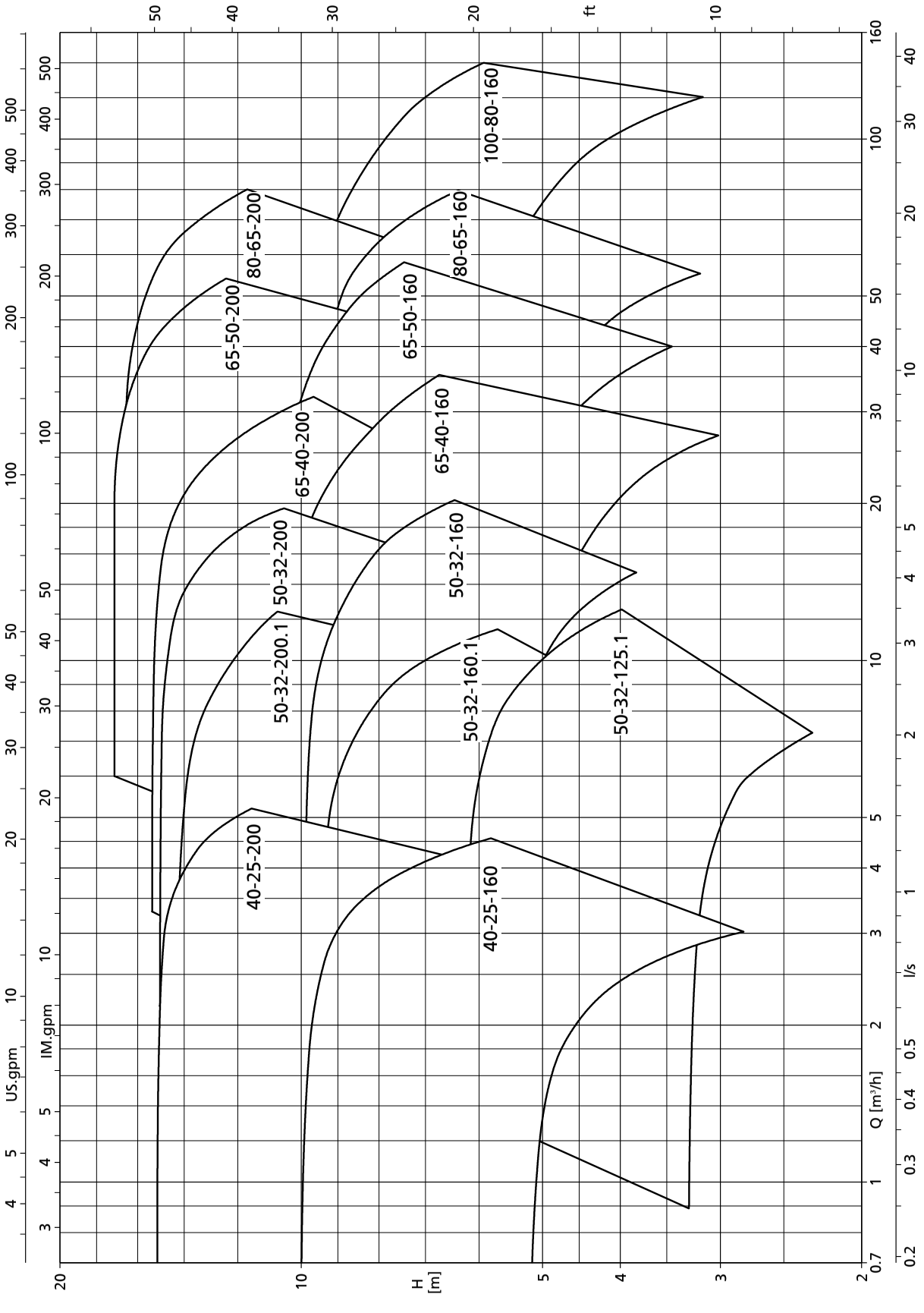


Etabloc, n = 960 rpm

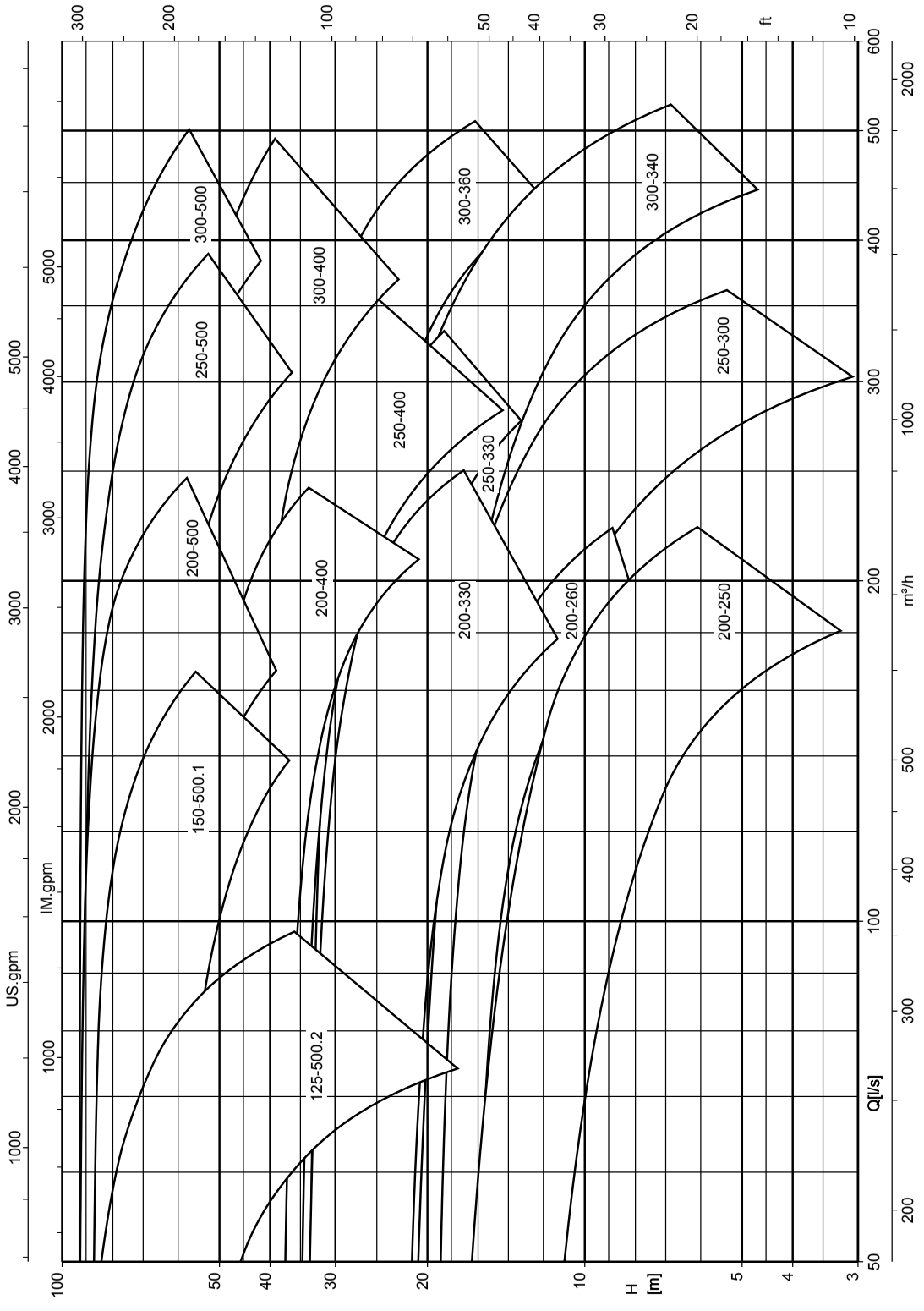



Etabloc SYT, n = 2900 rpm
ft
US.gpm
IM.gpm
Q [m³/h]
l/s
H [m]
100-80-160
80-65-200
80-65-160
65-50-200
65-50-160
65-40-200
65-40-160
50-32-200
50-32-200.1
50-32-160
50-32-160.1
50-32-125.1
40-25-200
40-25-160

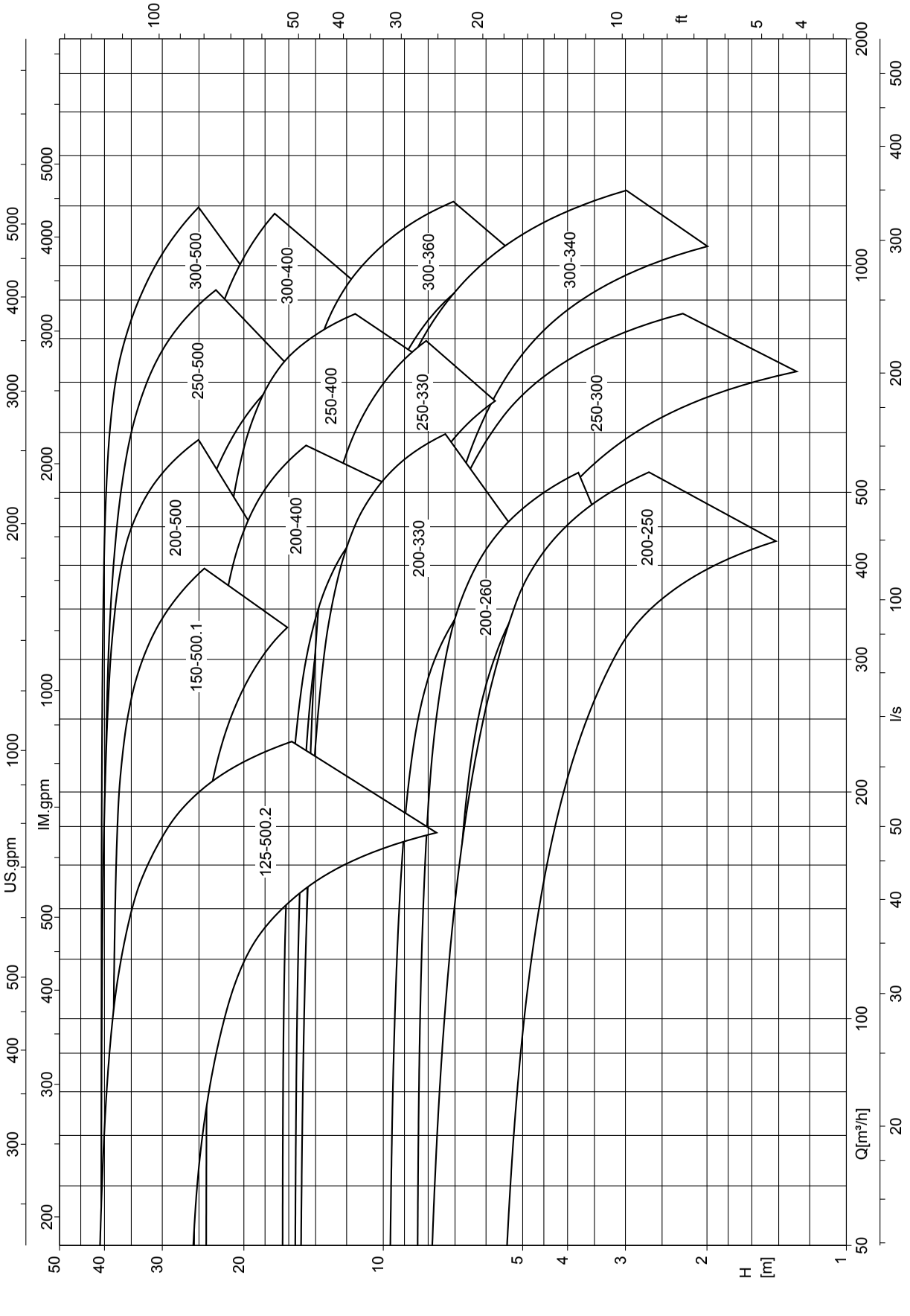
Etabloc SYT, n = 1450 rpm



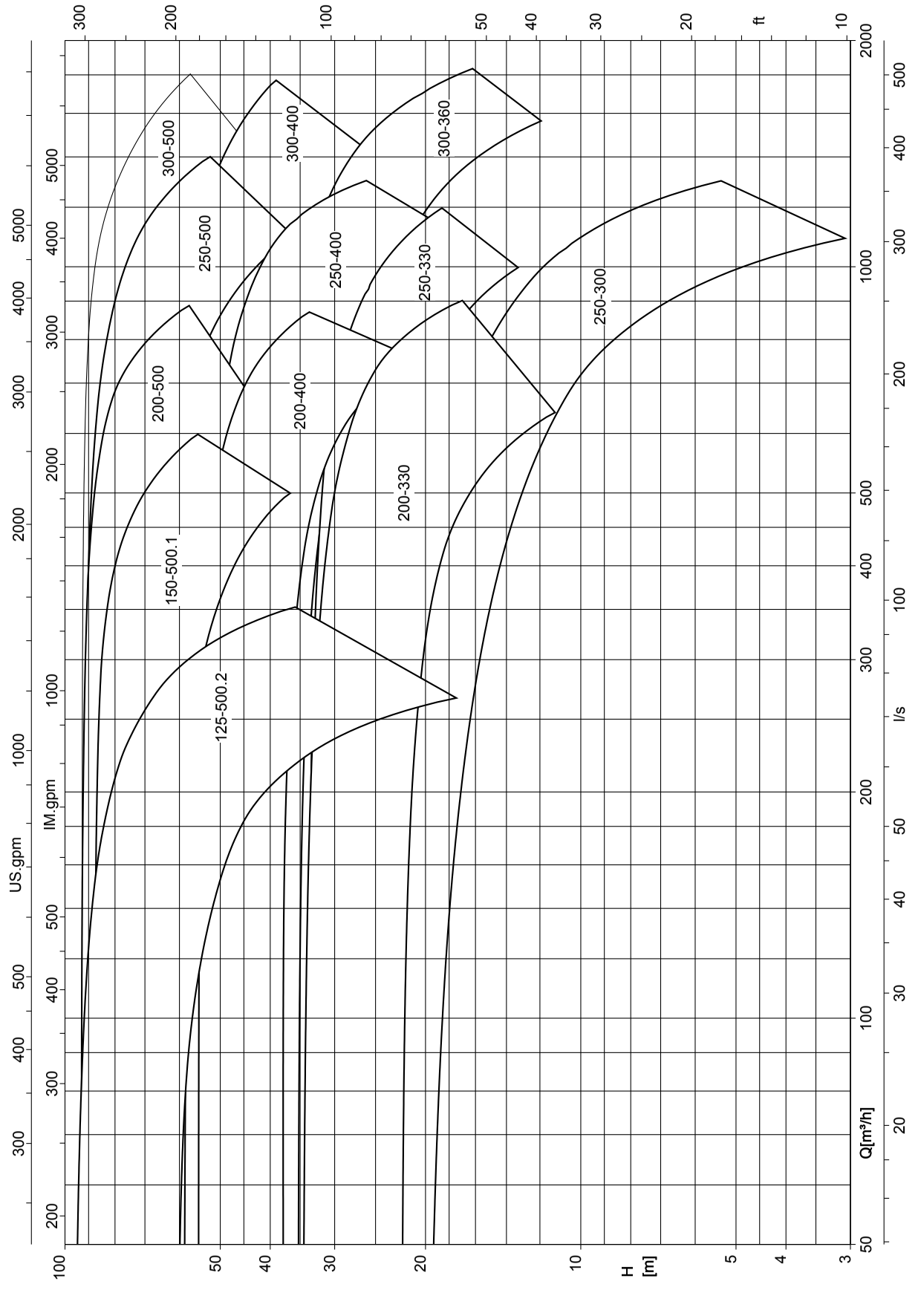
Etanorm-R, n = 1450 rpm



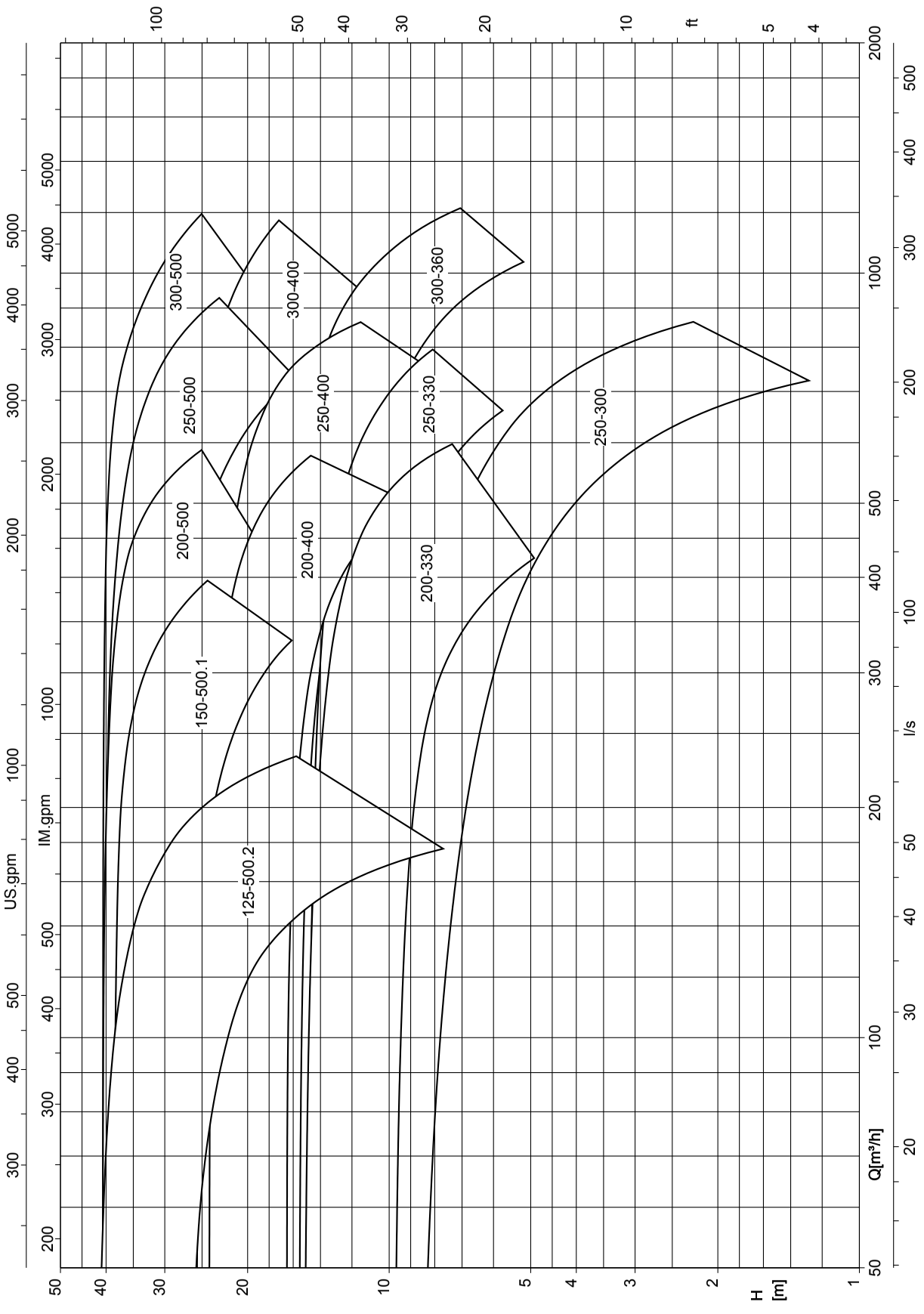
Etanorm-R, n = 960 rpm



Etanorm-RSY, n = 1450 rpm



Etanorm-RSY, n = 960 rpm

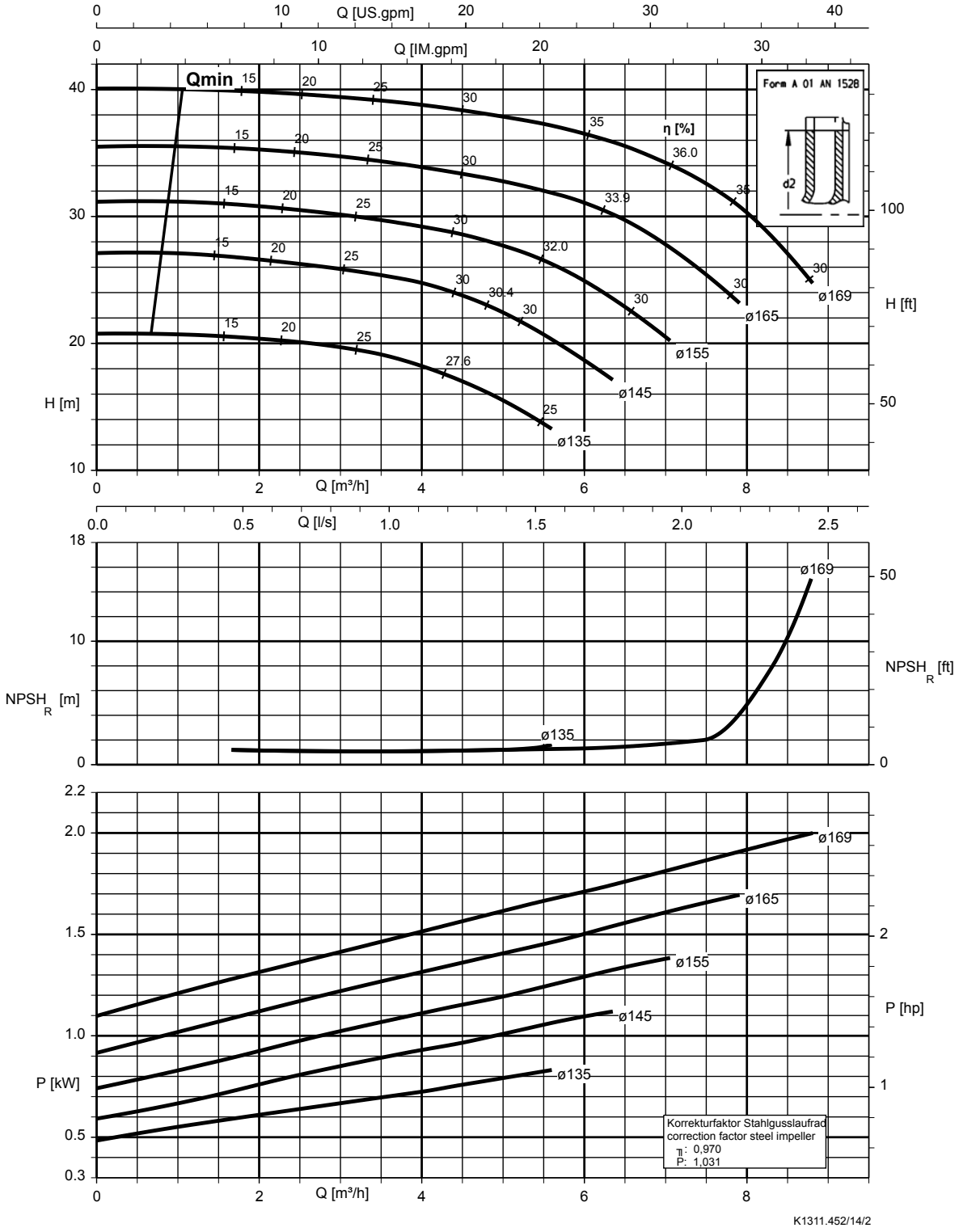


Characteristic curves

n = 2900 rpm

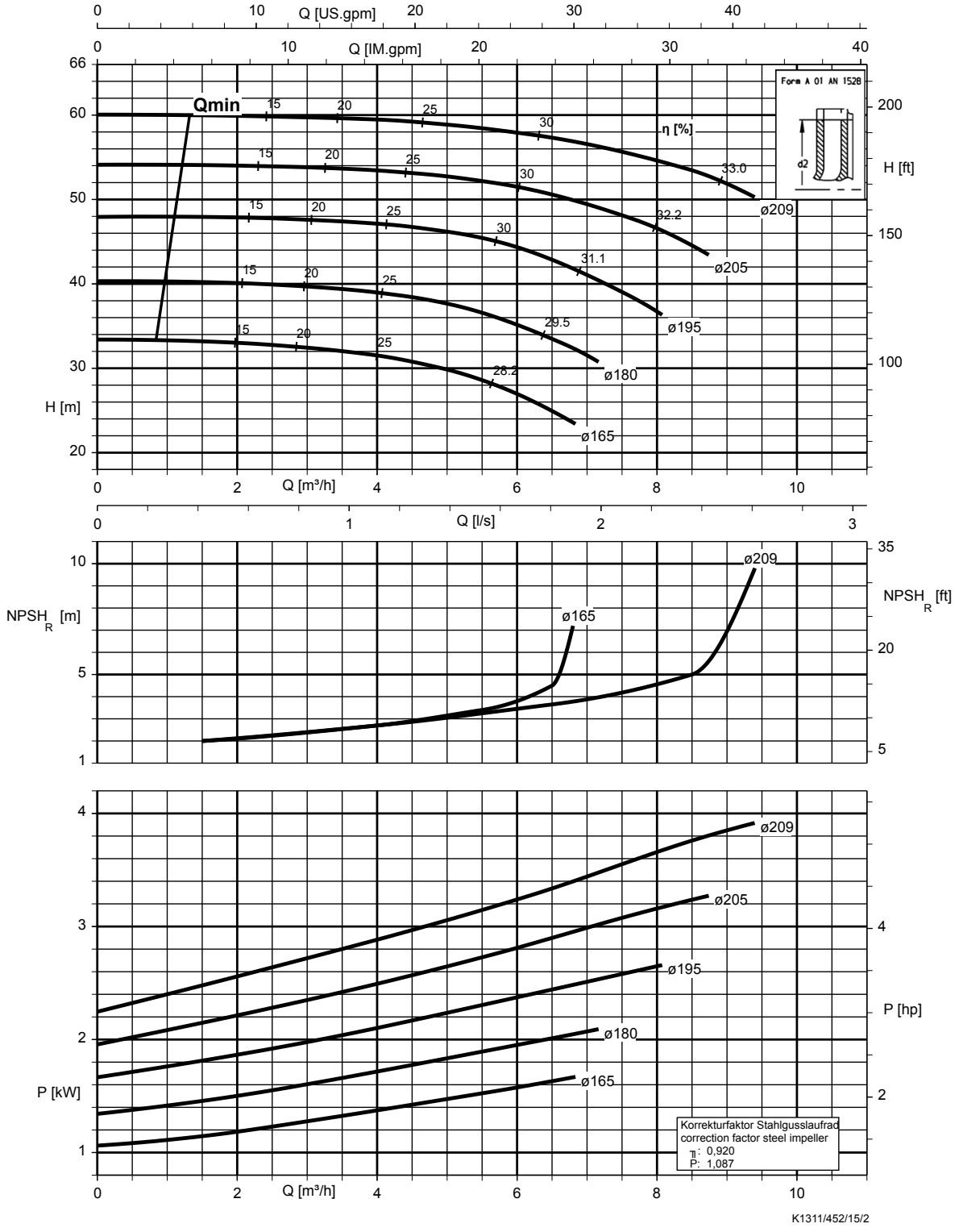
Etanorm 040-025-160, n = 2900 rpm

Etanorm SYT, Etabloc, Etabloc SYT



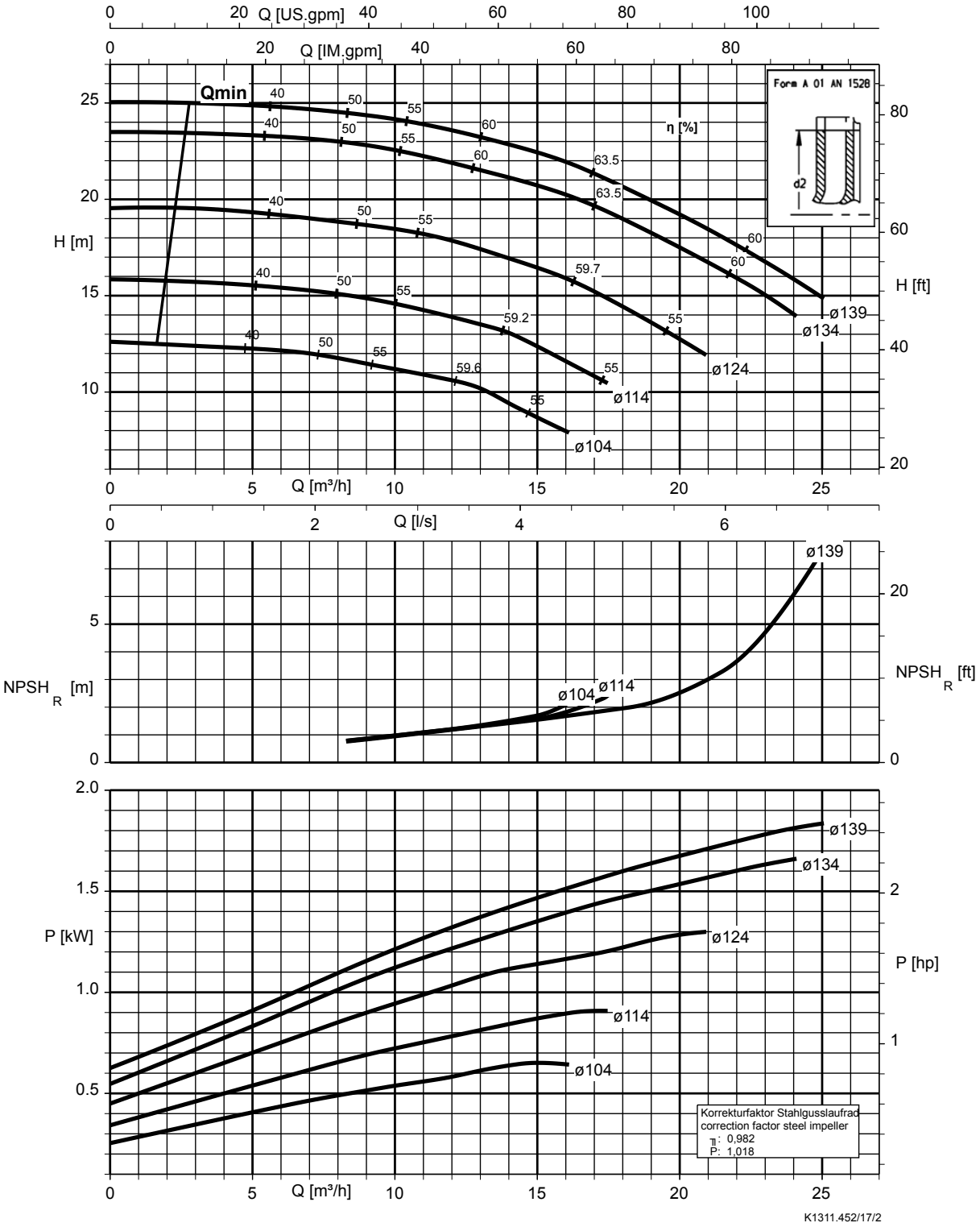
Etanorm 040-025-200, n = 2900 rpm

Etanorm SYT, Etabloc, Etabloc SYT



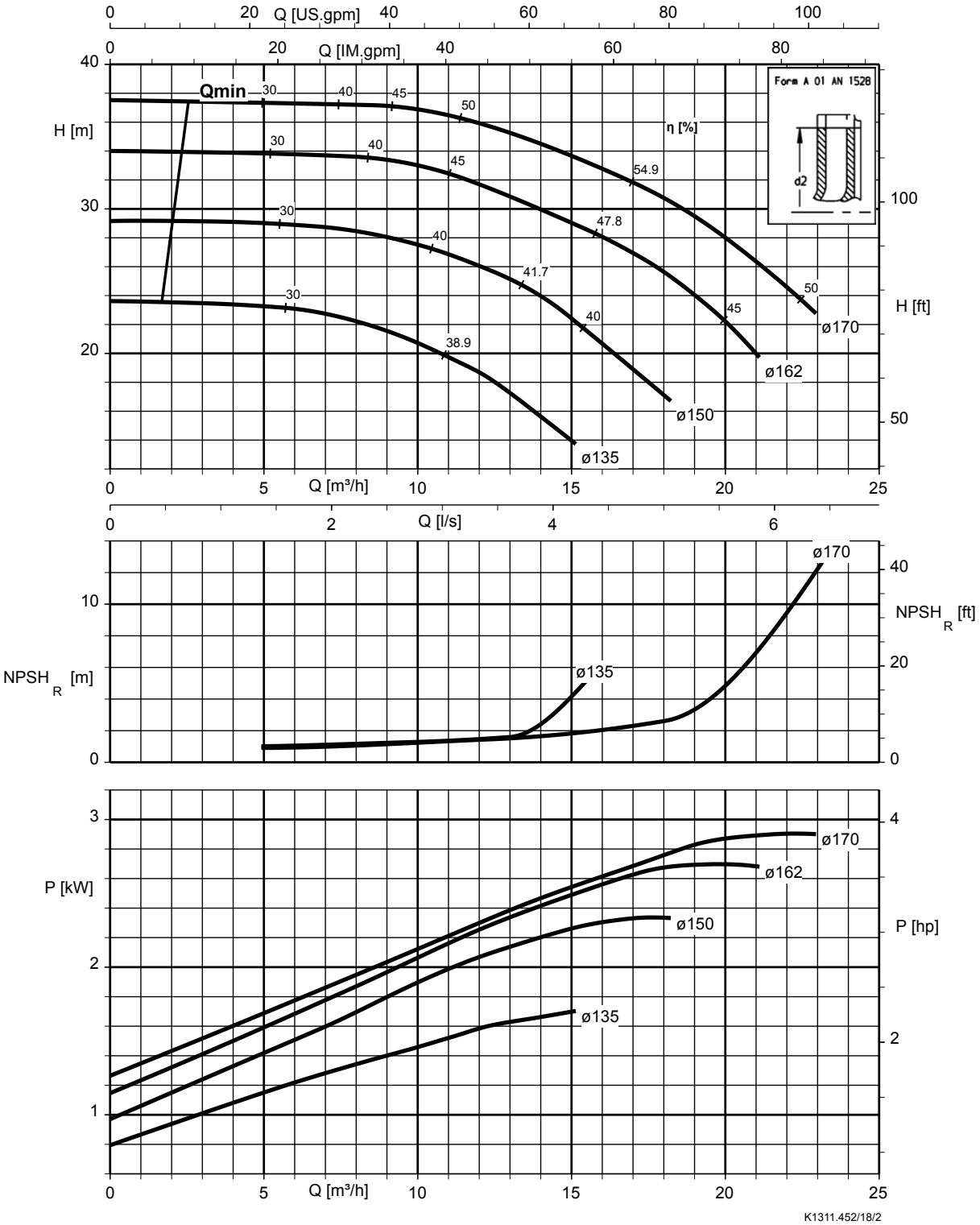
Etanorm 050-032-125.1, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



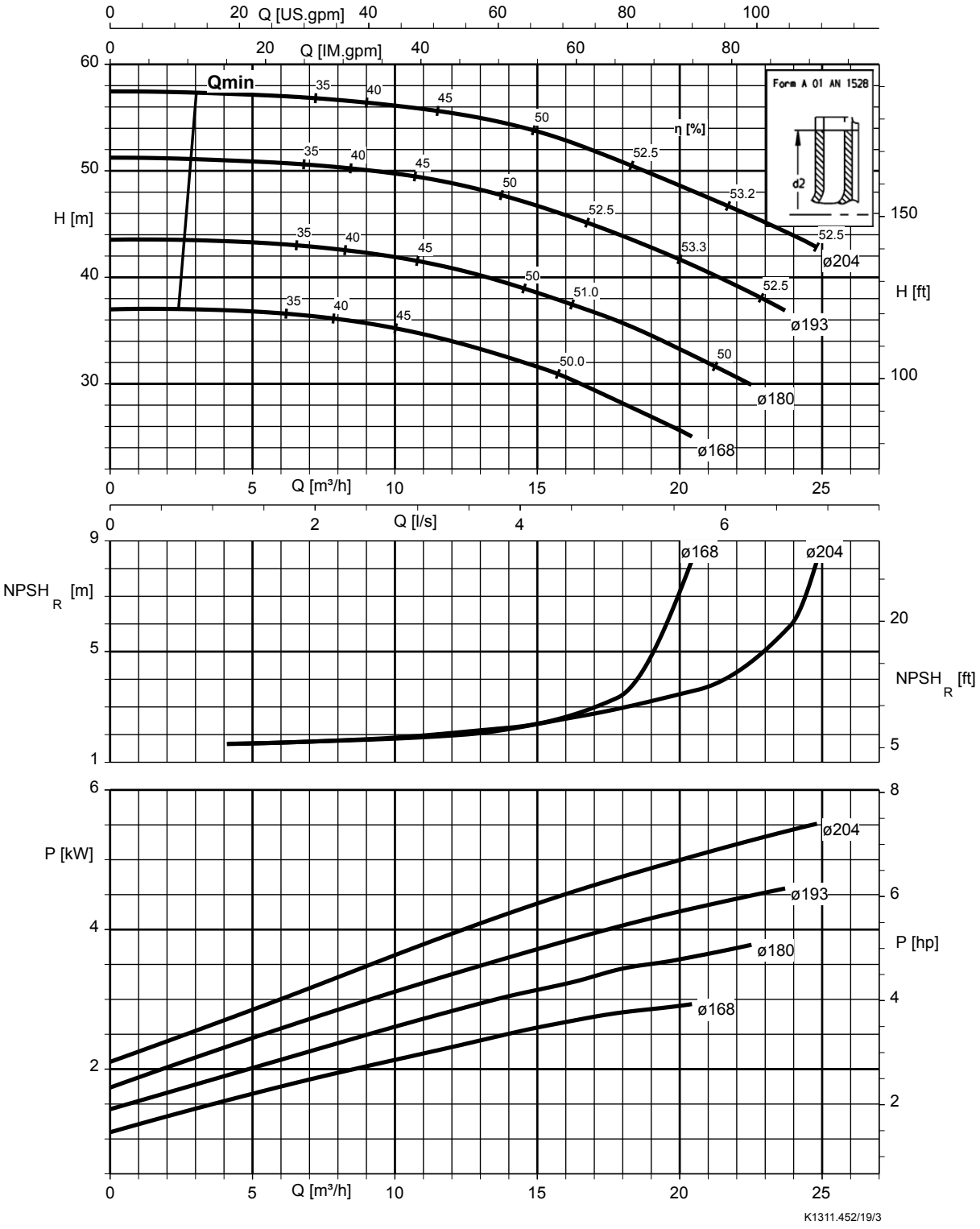
Etanorm 050-032-160.1, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



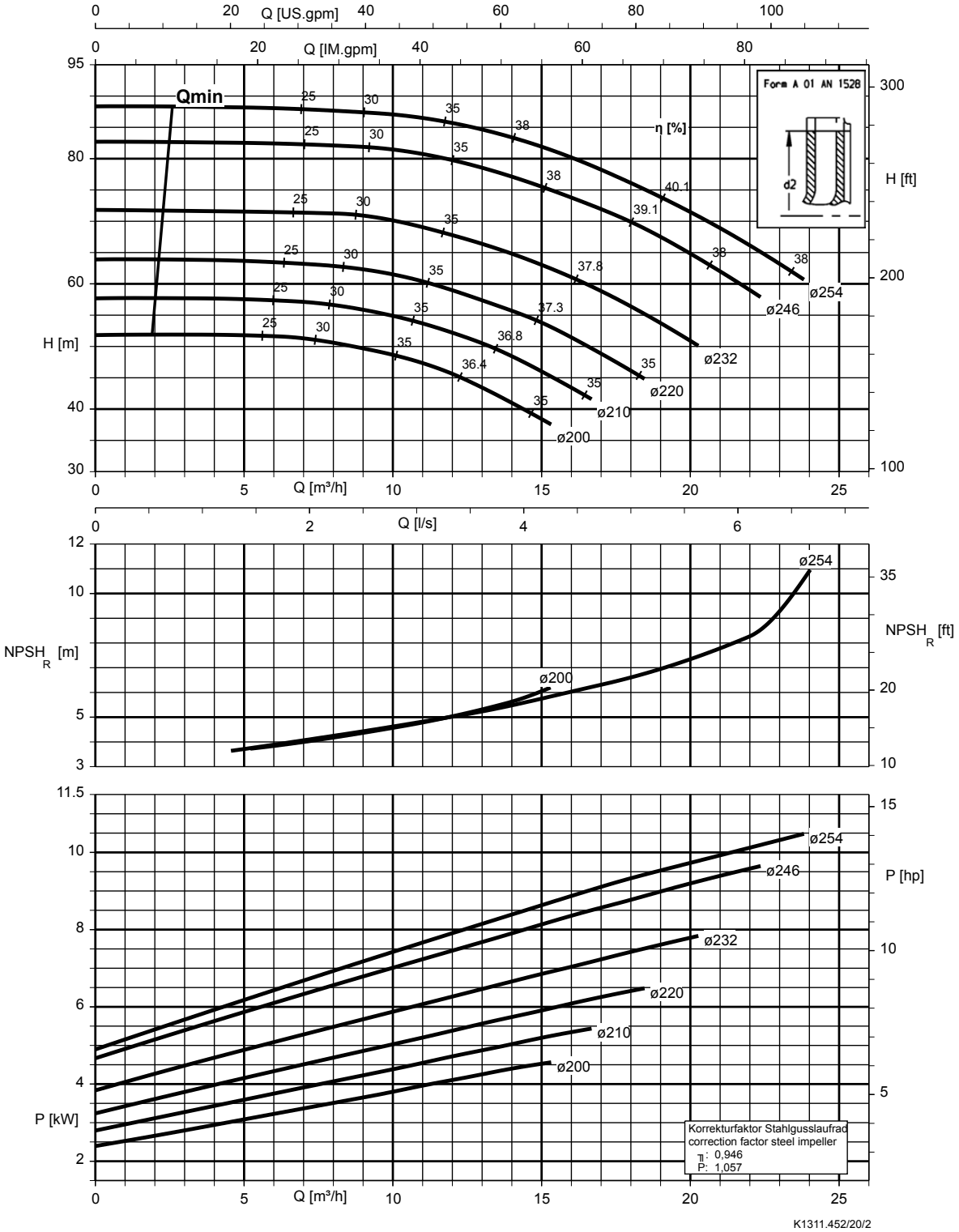
Etanorm 050-032-200.1, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



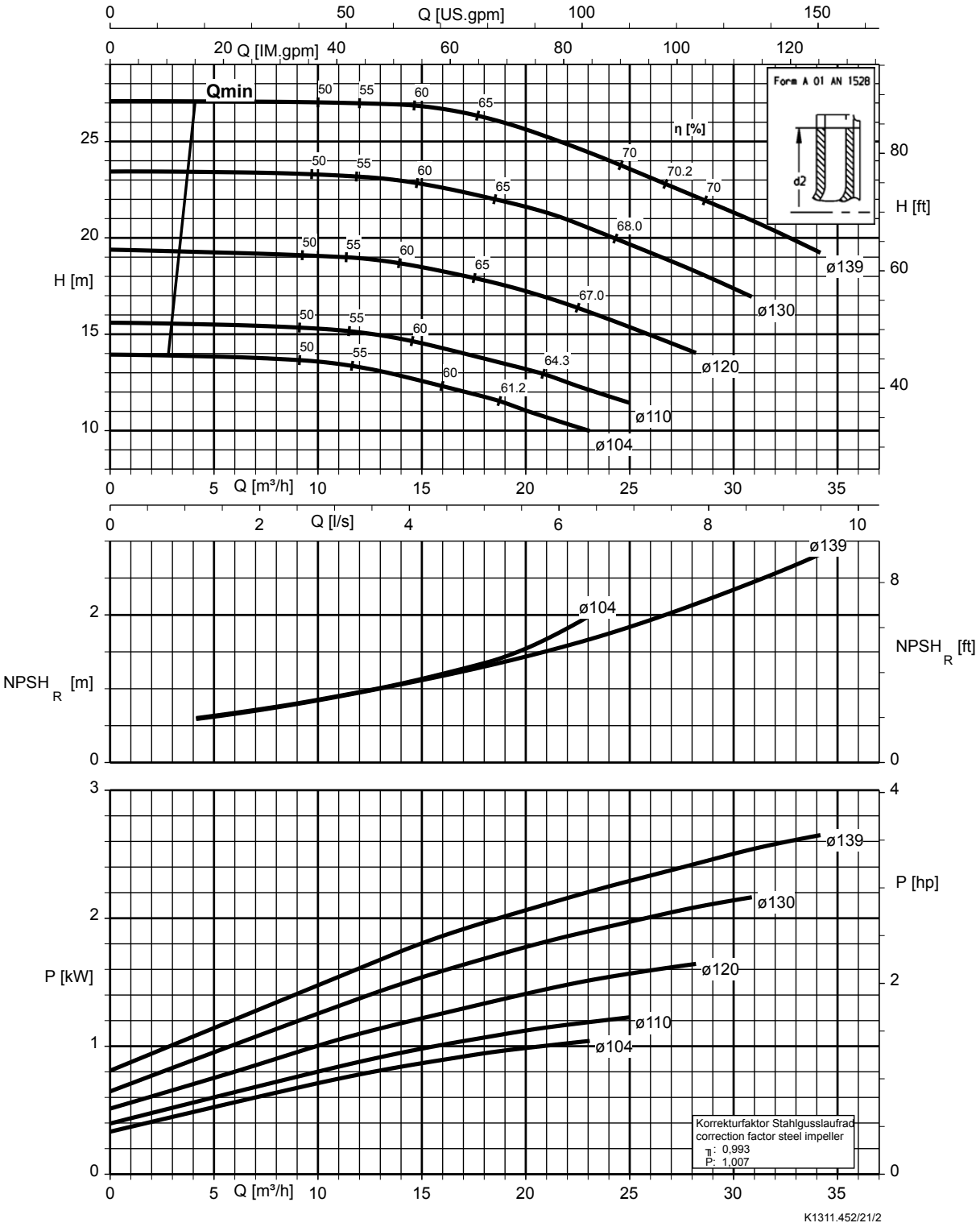
Etanorm 050-032-250.1, n = 2900 rpm

Etanorm V, Etabloc



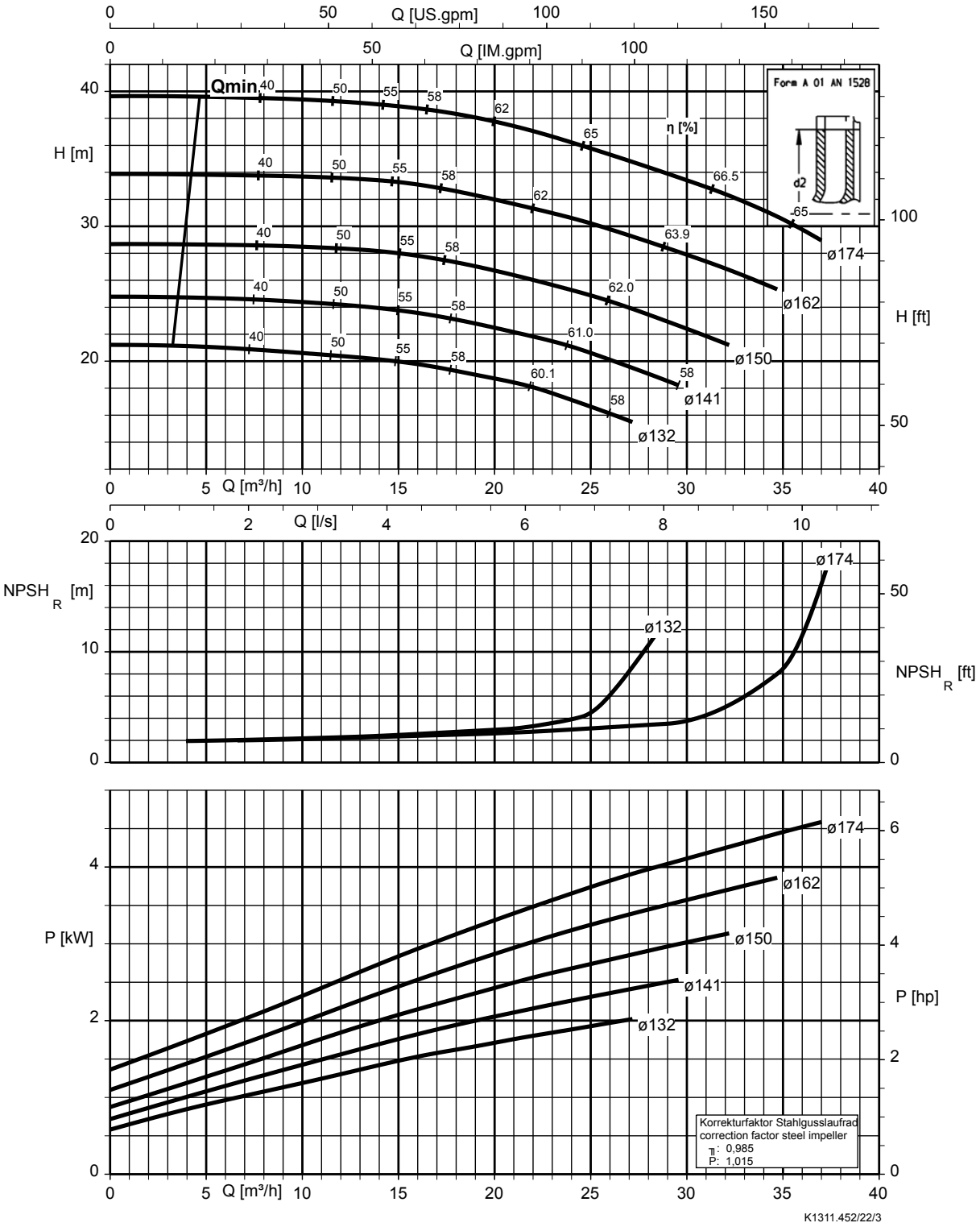
Etanorm 050-032-125, n = 2900 rpm

Etanorm V, Etabloc



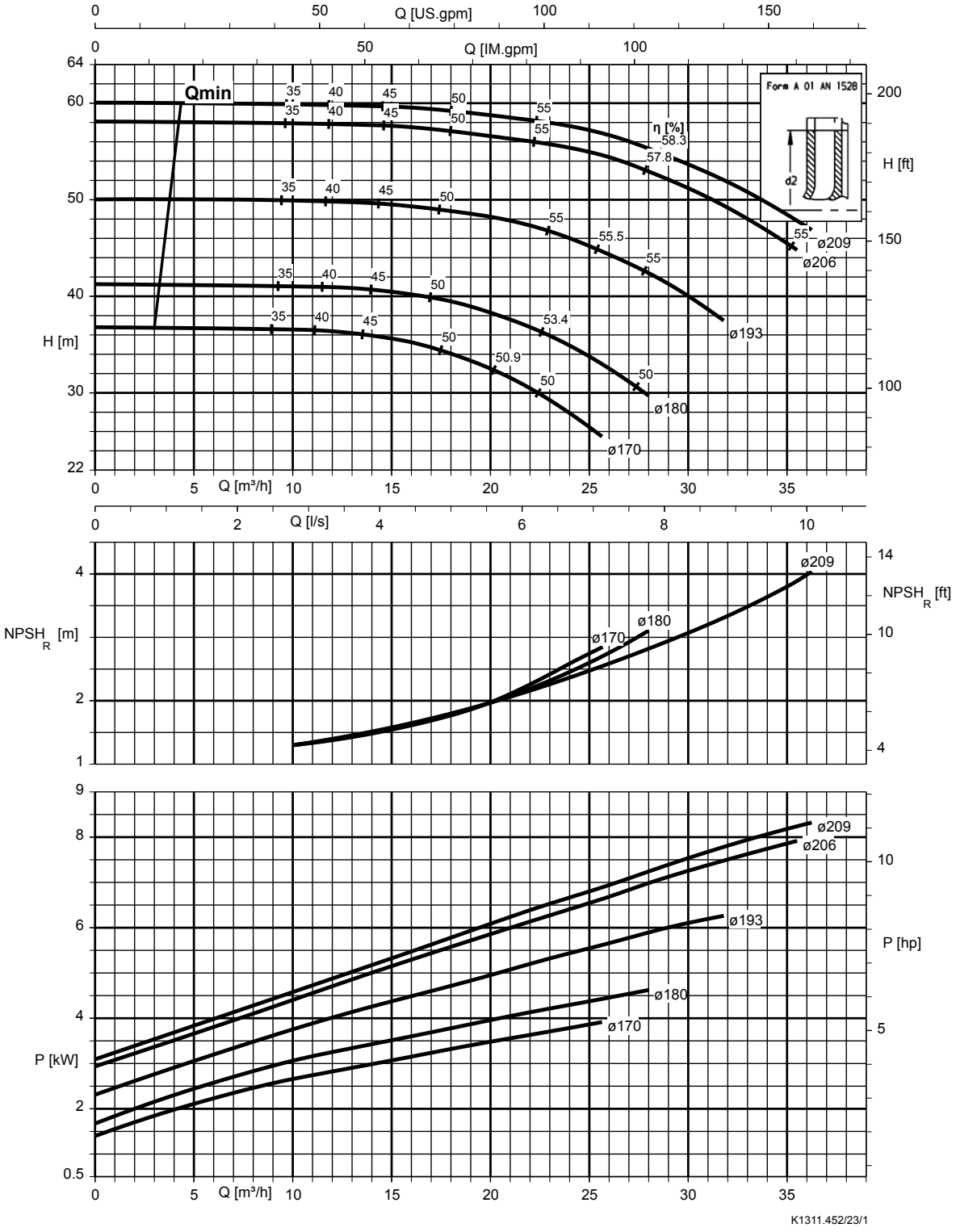
Etanorm 050-032-160, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



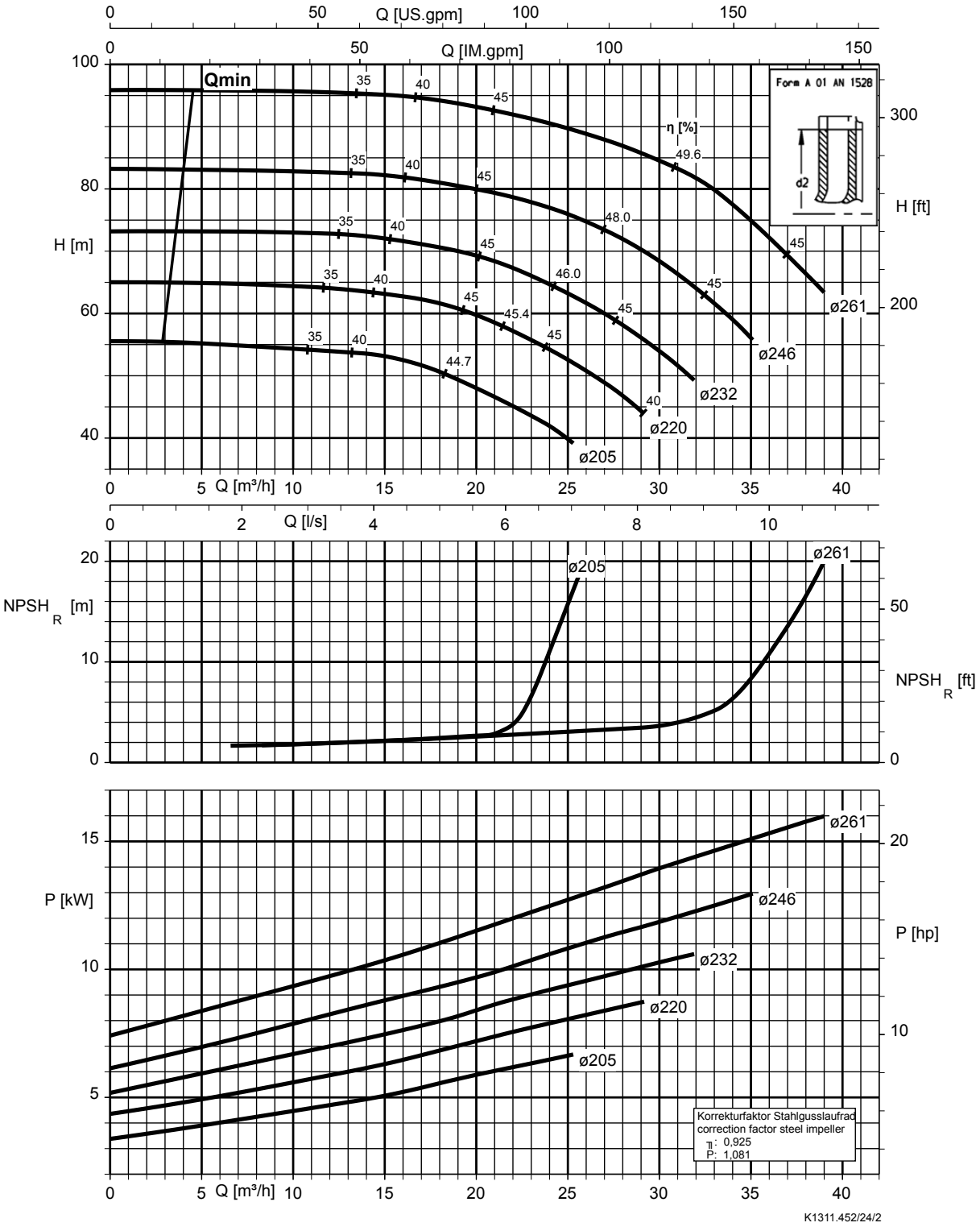
Etanorm 050-032-200, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



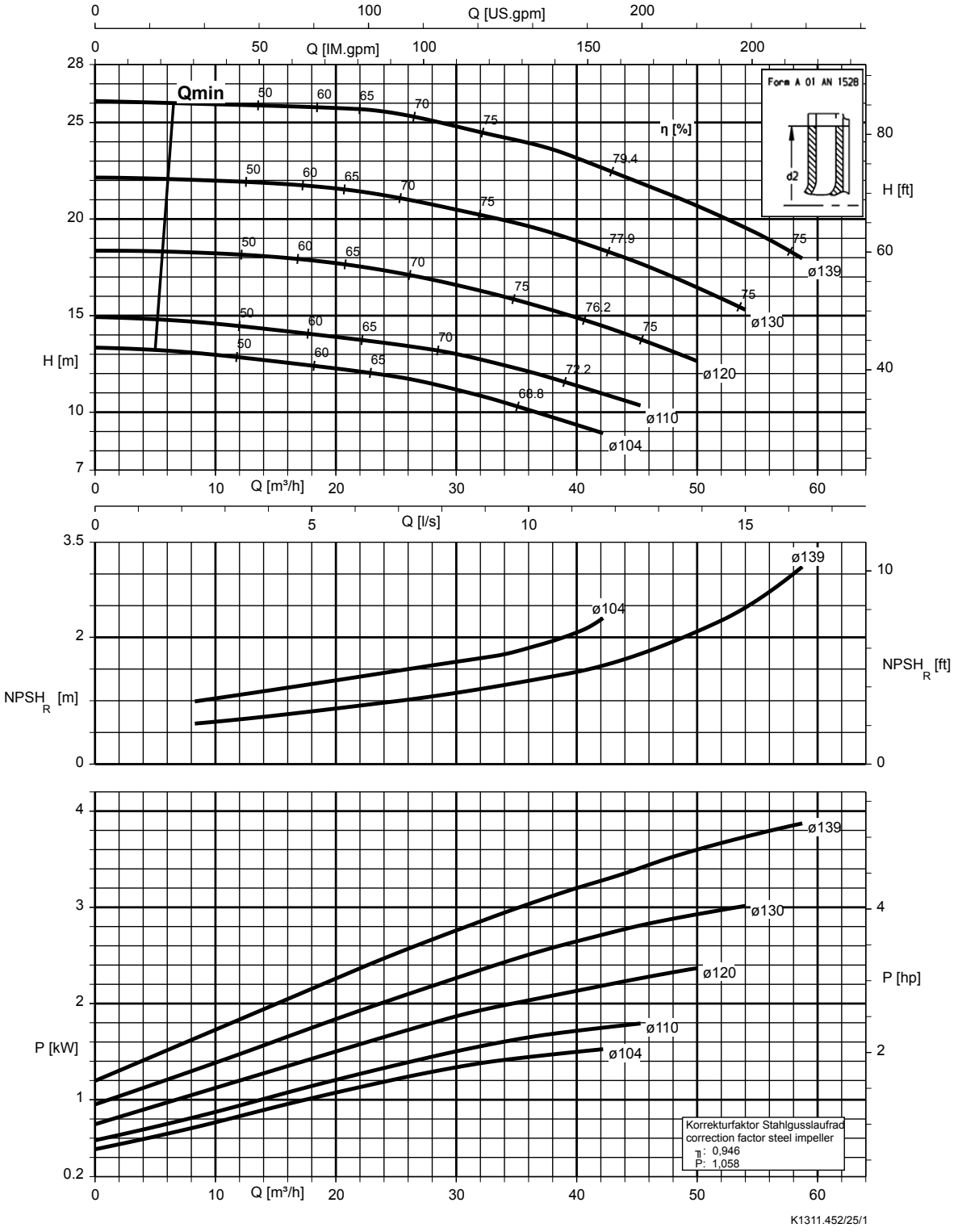
Etanorm 050-032-250, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc



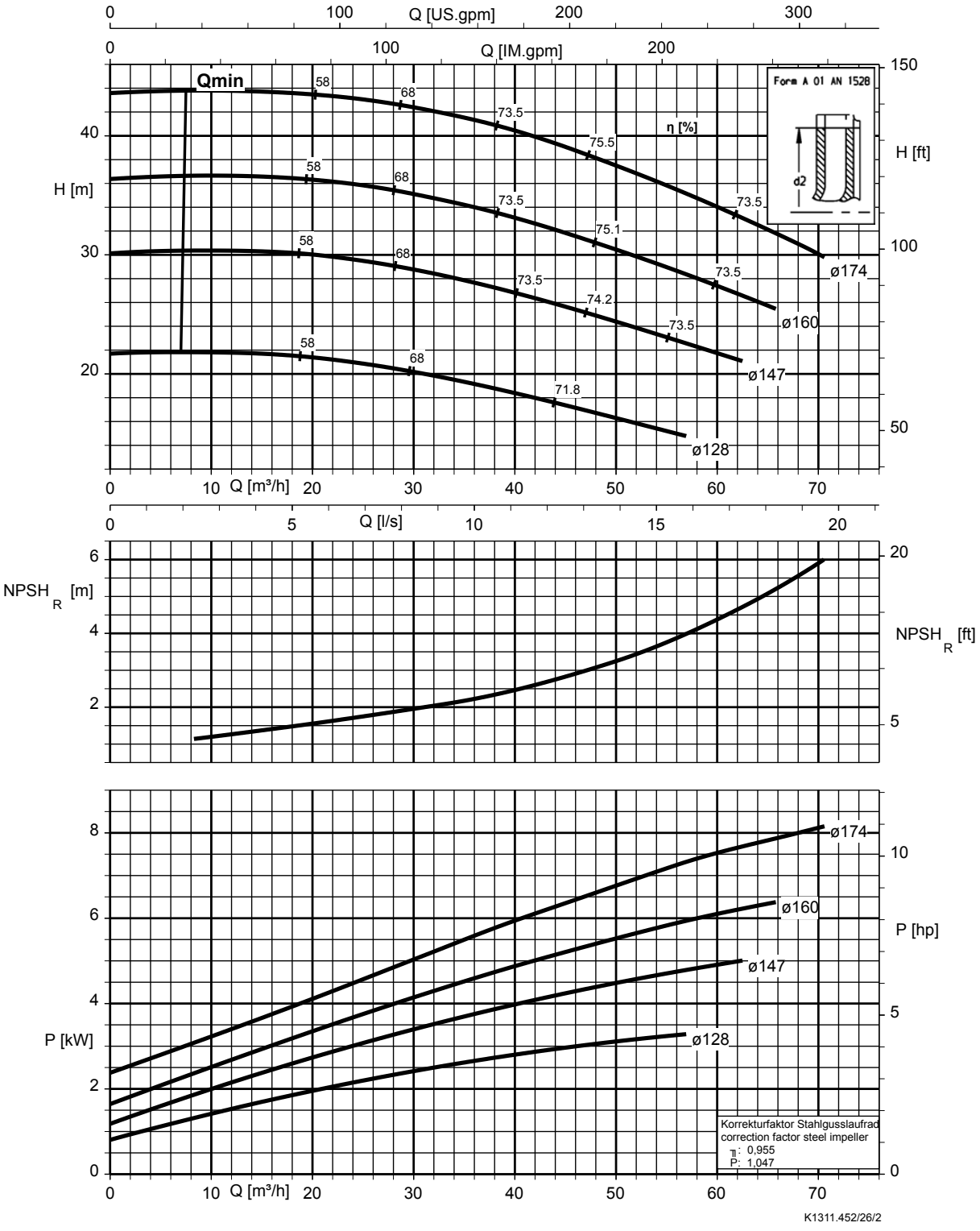
Etanorm 065-040-125, n = 2900 rpm

Etanorm V, Etabloc



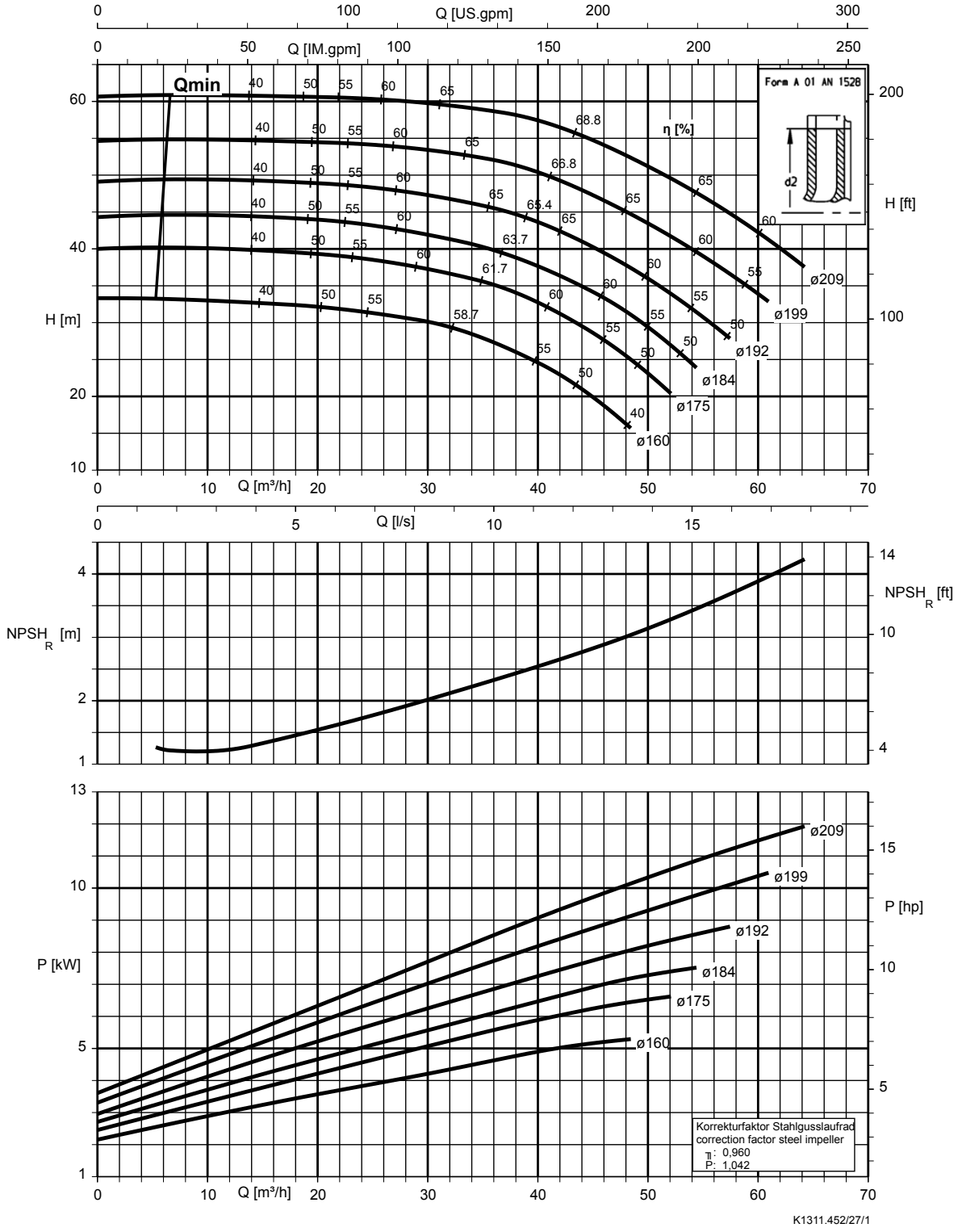
Etanorm 065-040-160, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



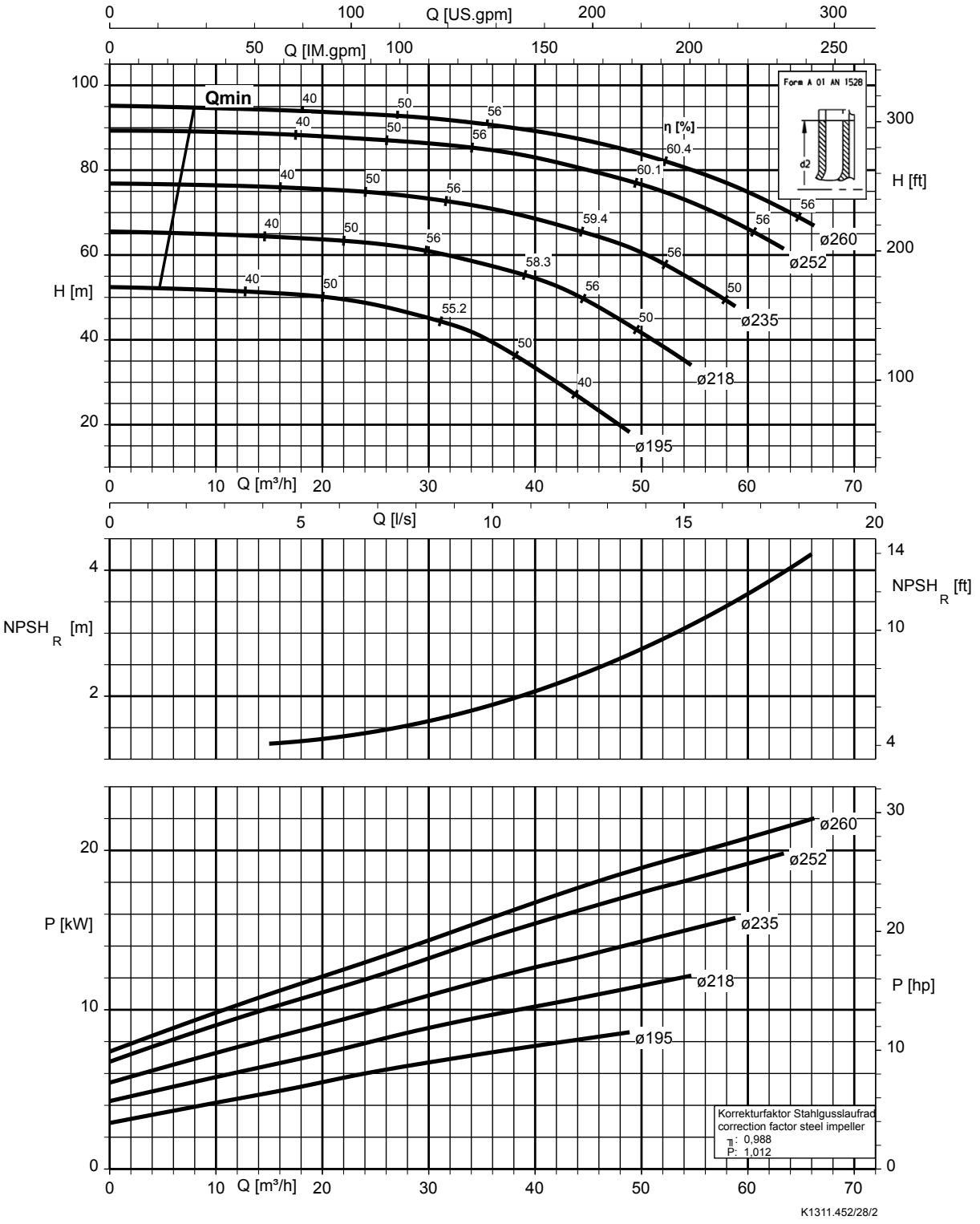
Etanorm 065-040-200, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



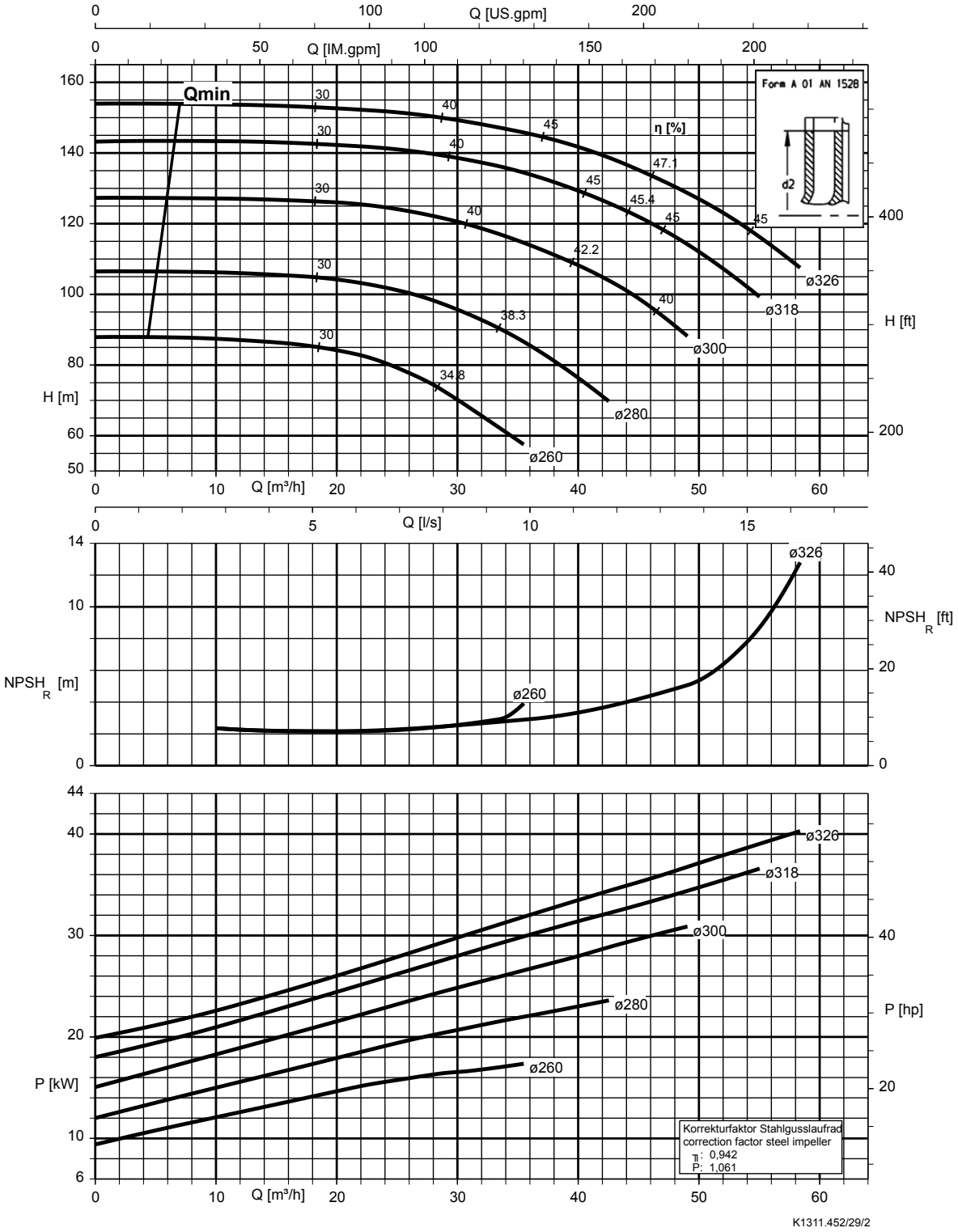
Etanorm 065-040-250, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc



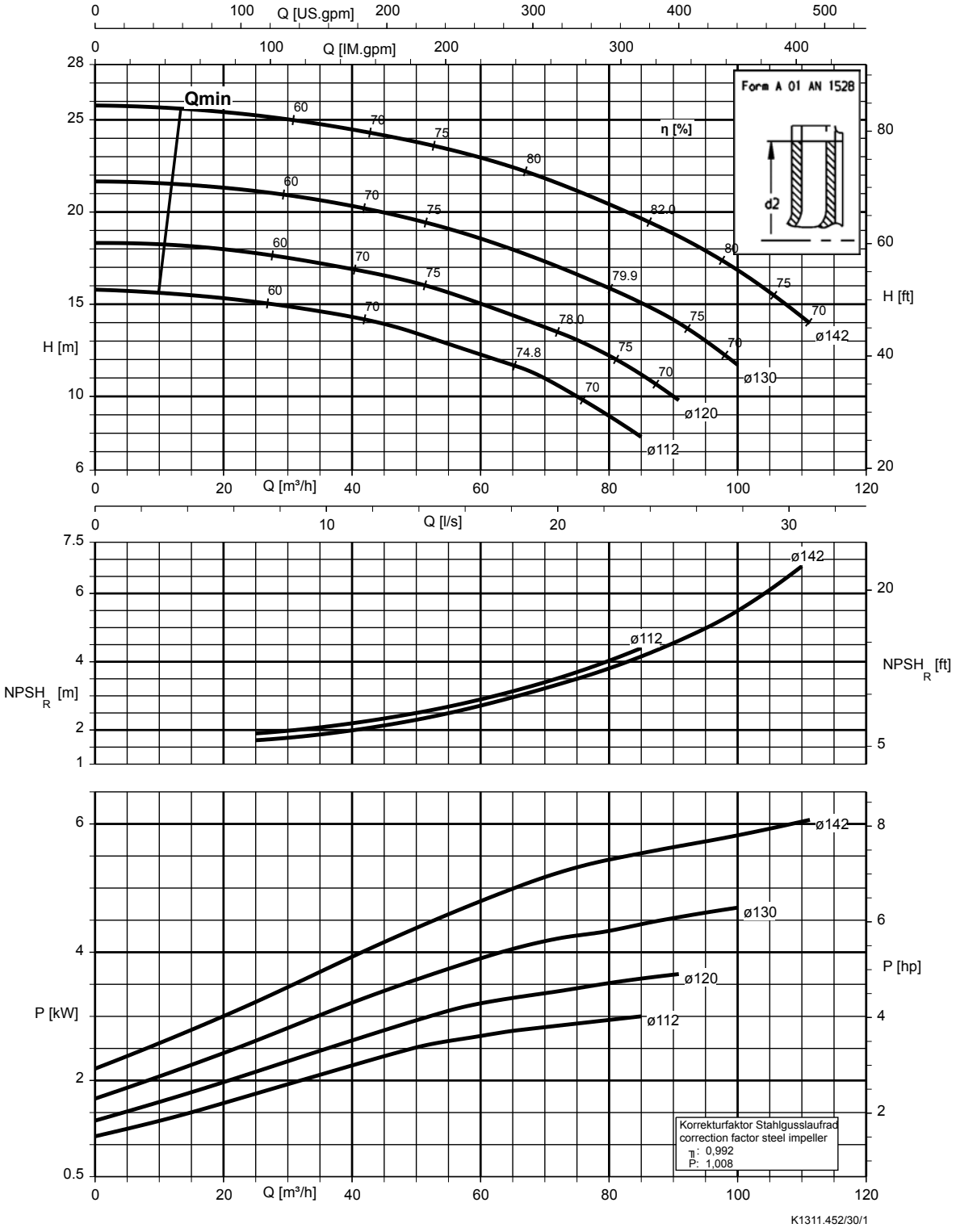
Etanorm 065-040-315, n = 2900 rpm

Etabloc



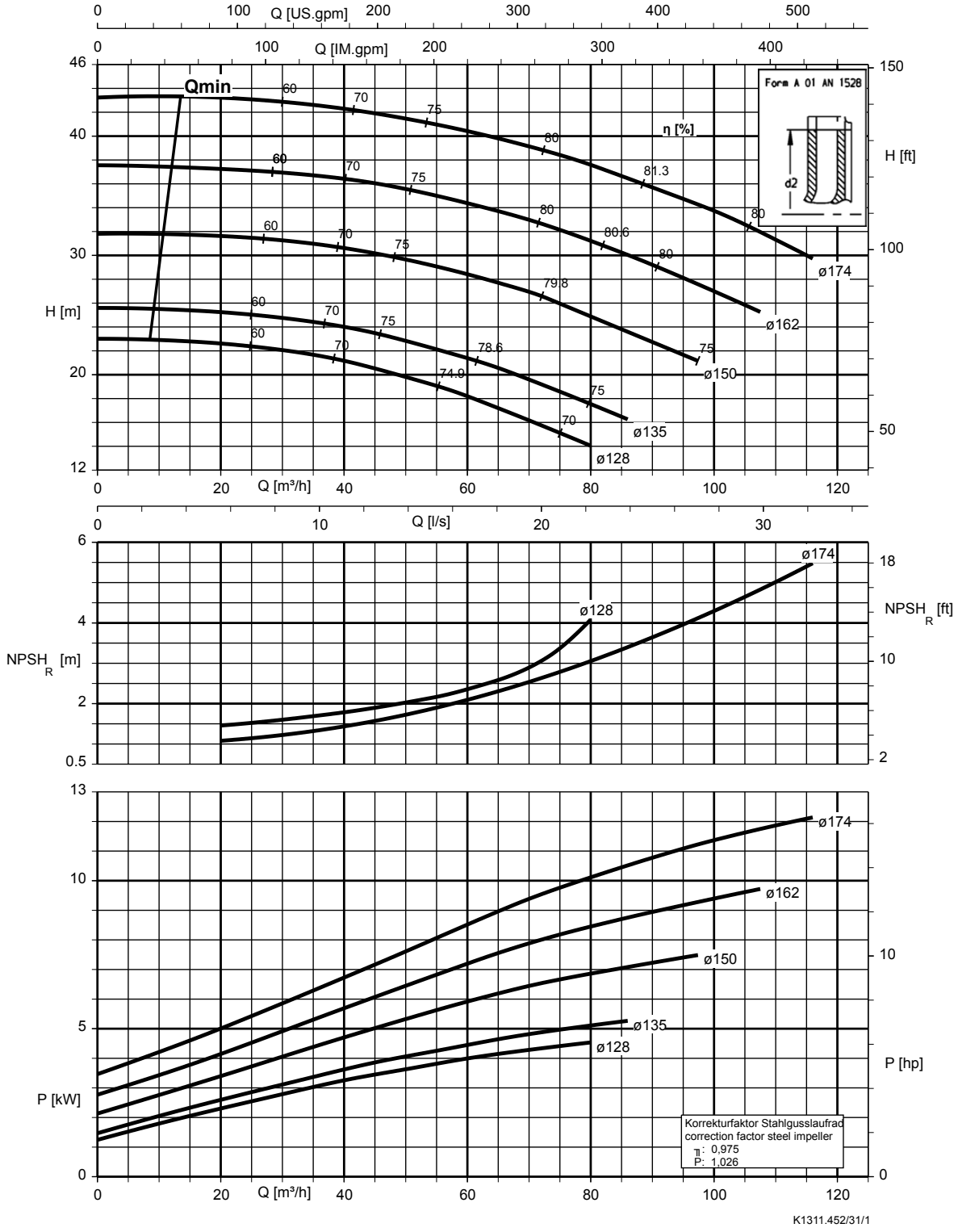
Etanorm 065-050-125, n = 2900 rpm

Etanorm V, Etabloc



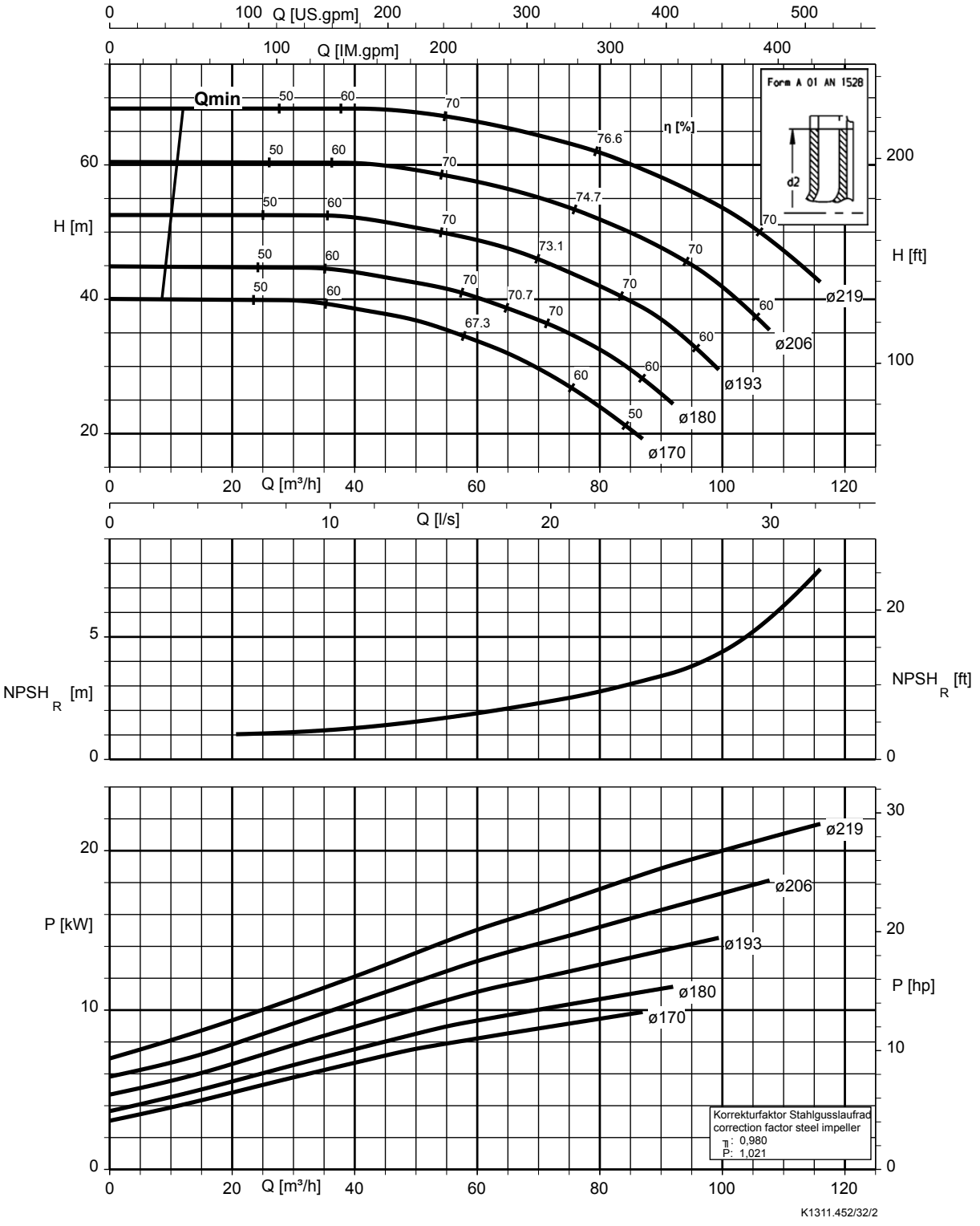
Etanorm 065-050-160, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



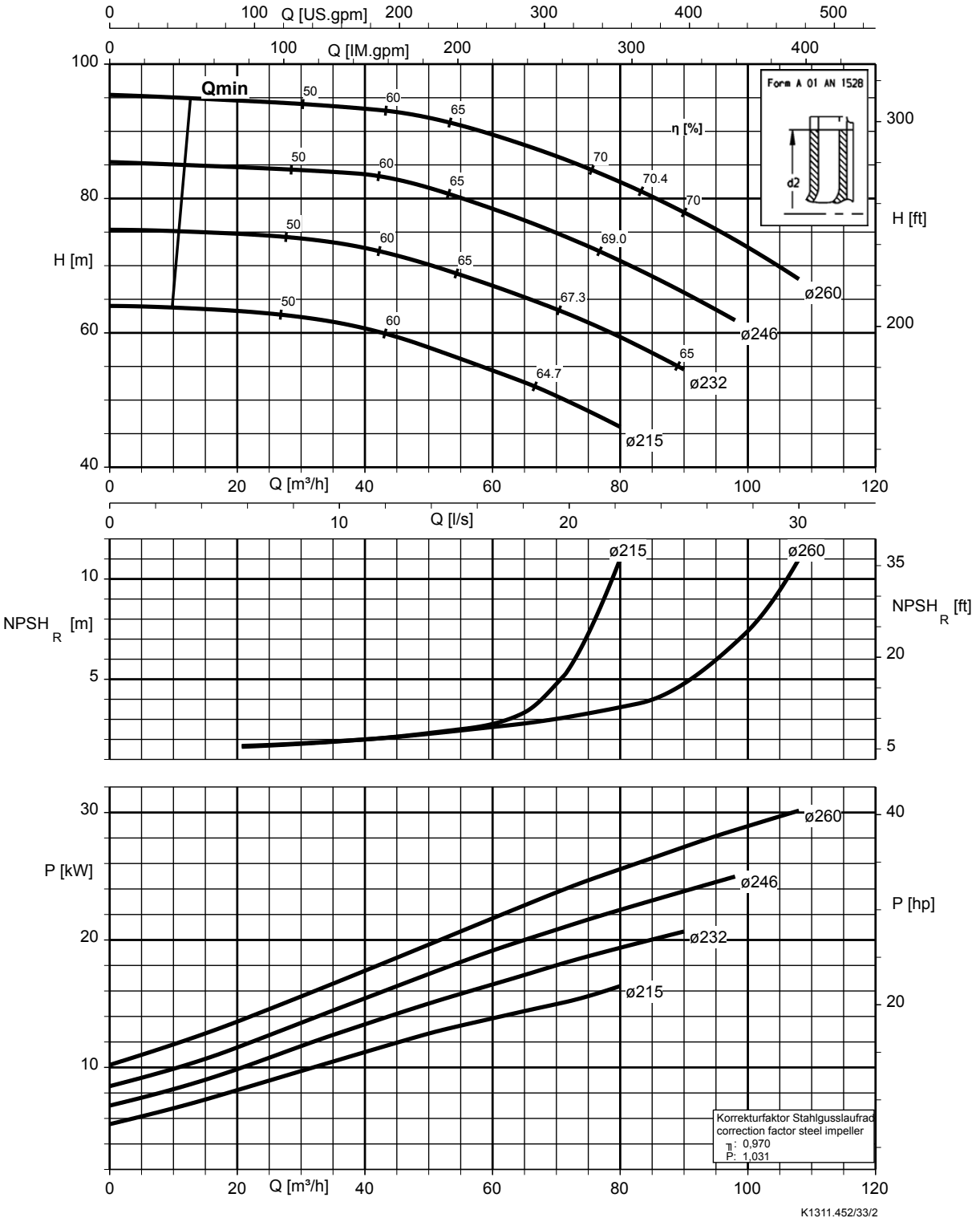
Etanorm 065-050-200, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



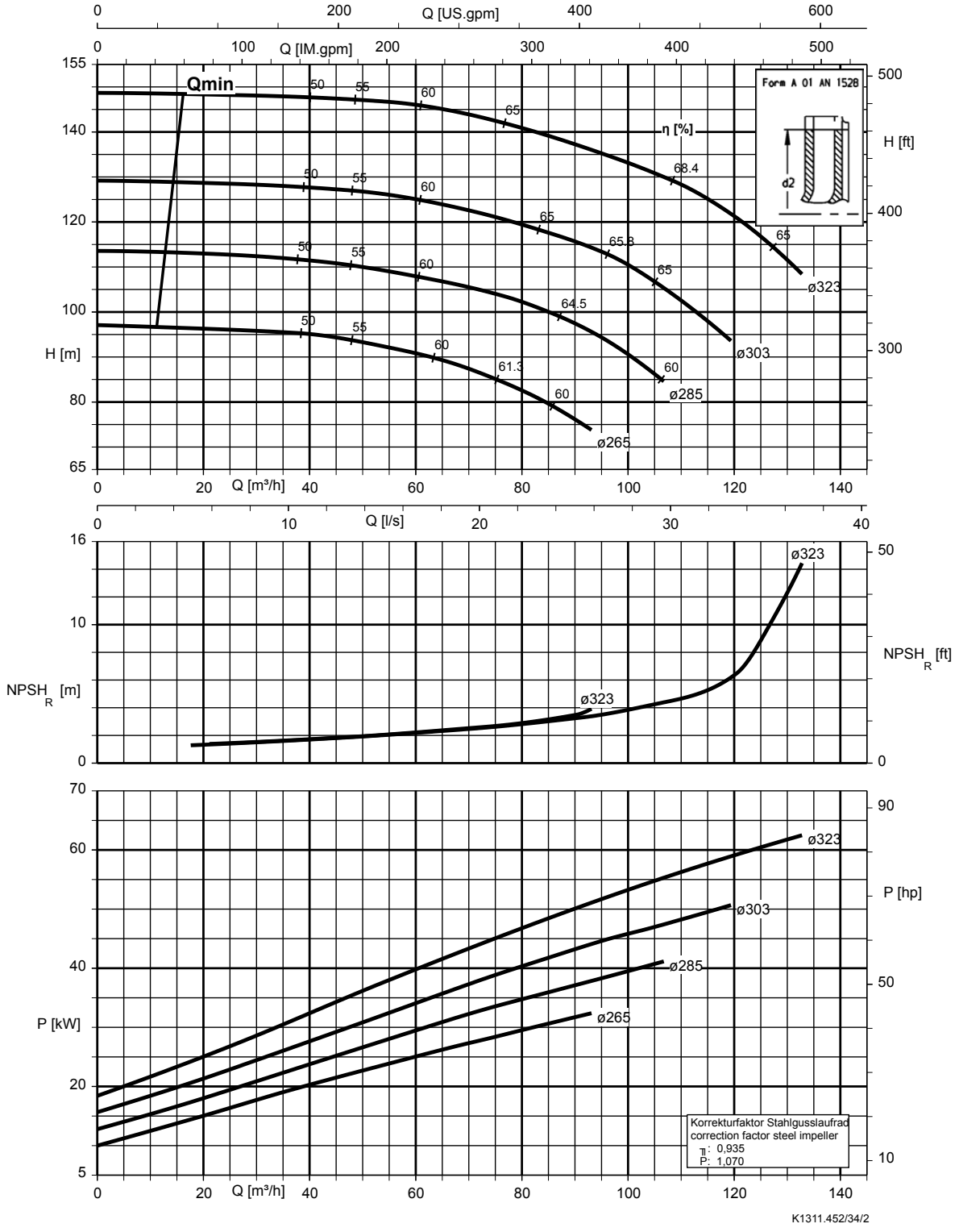
Etanorm 065-050-250, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc



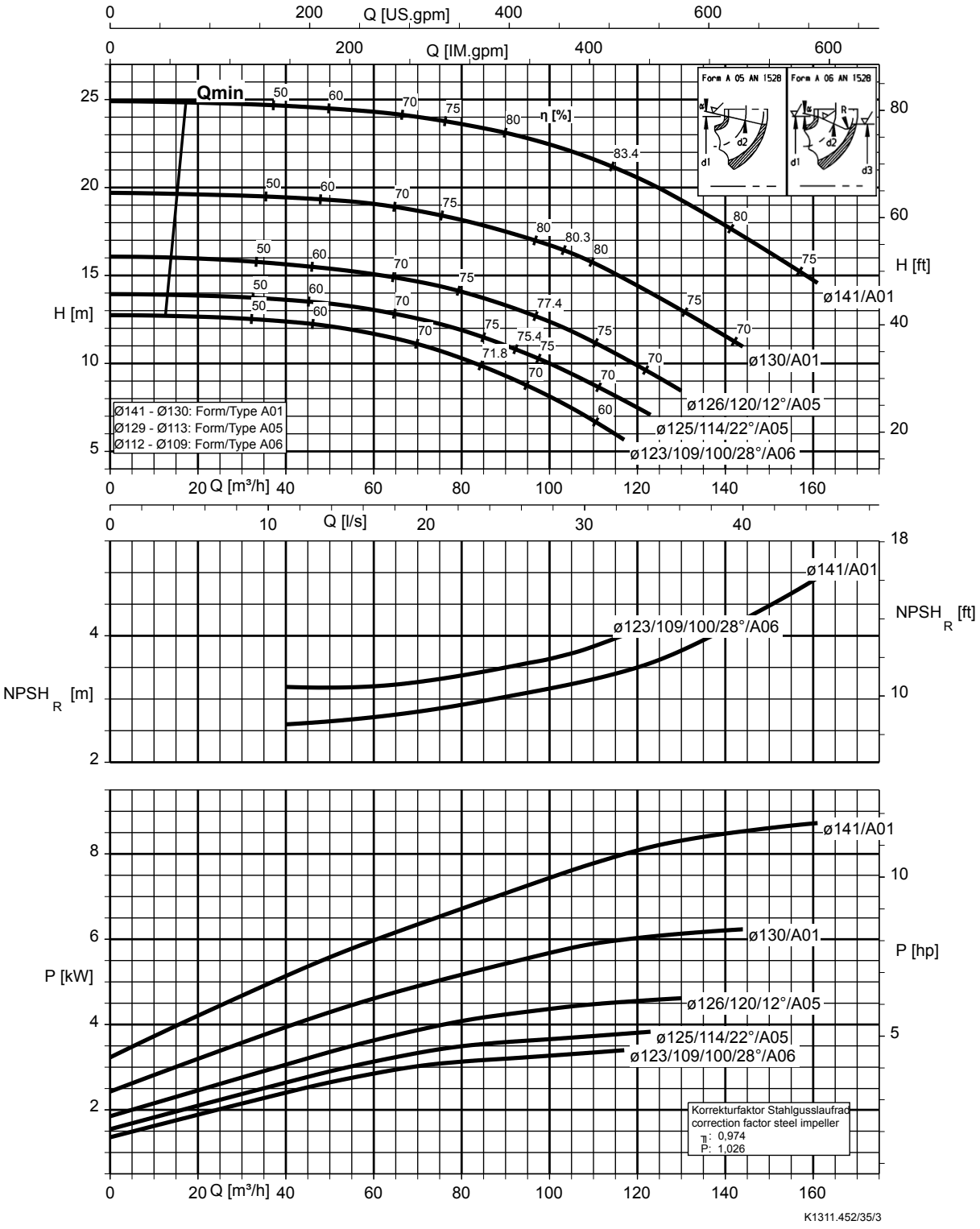
Etanorm 065-050-315, n = 2900 rpm

Etabloc



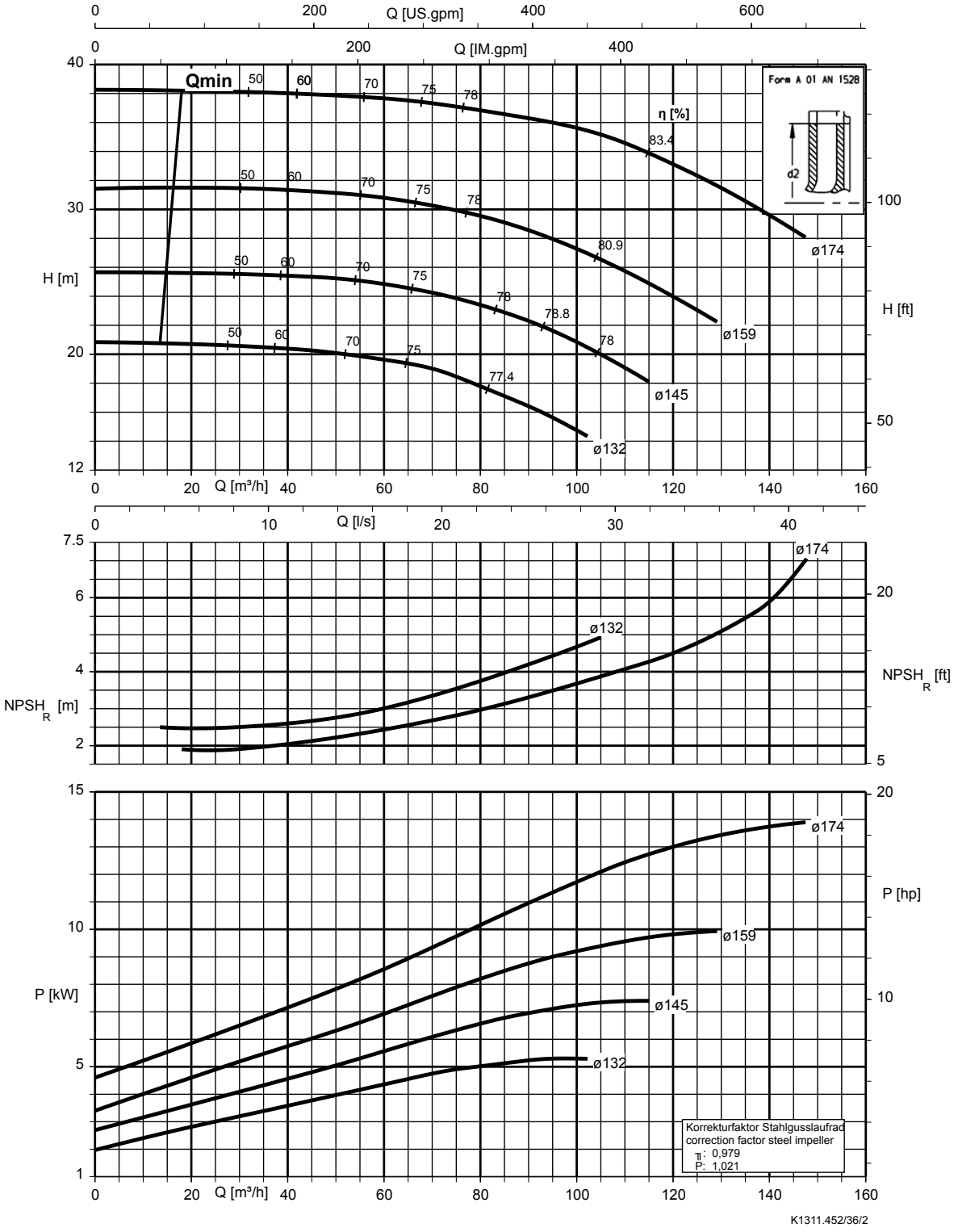
Etanorm 080-065-125, n = 2900 rpm

Etanorm V, Etabloc



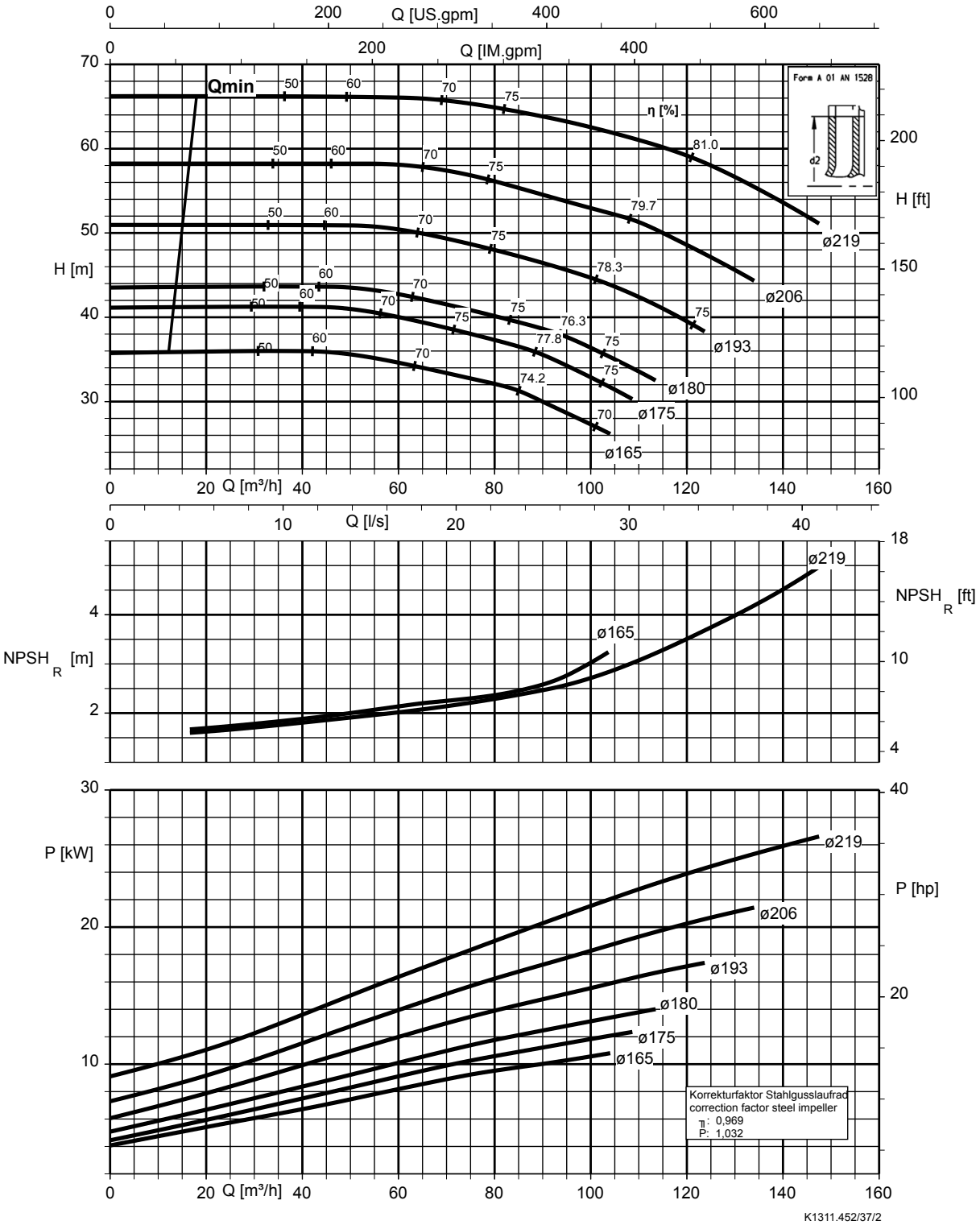
Etanorm 080-065-160, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



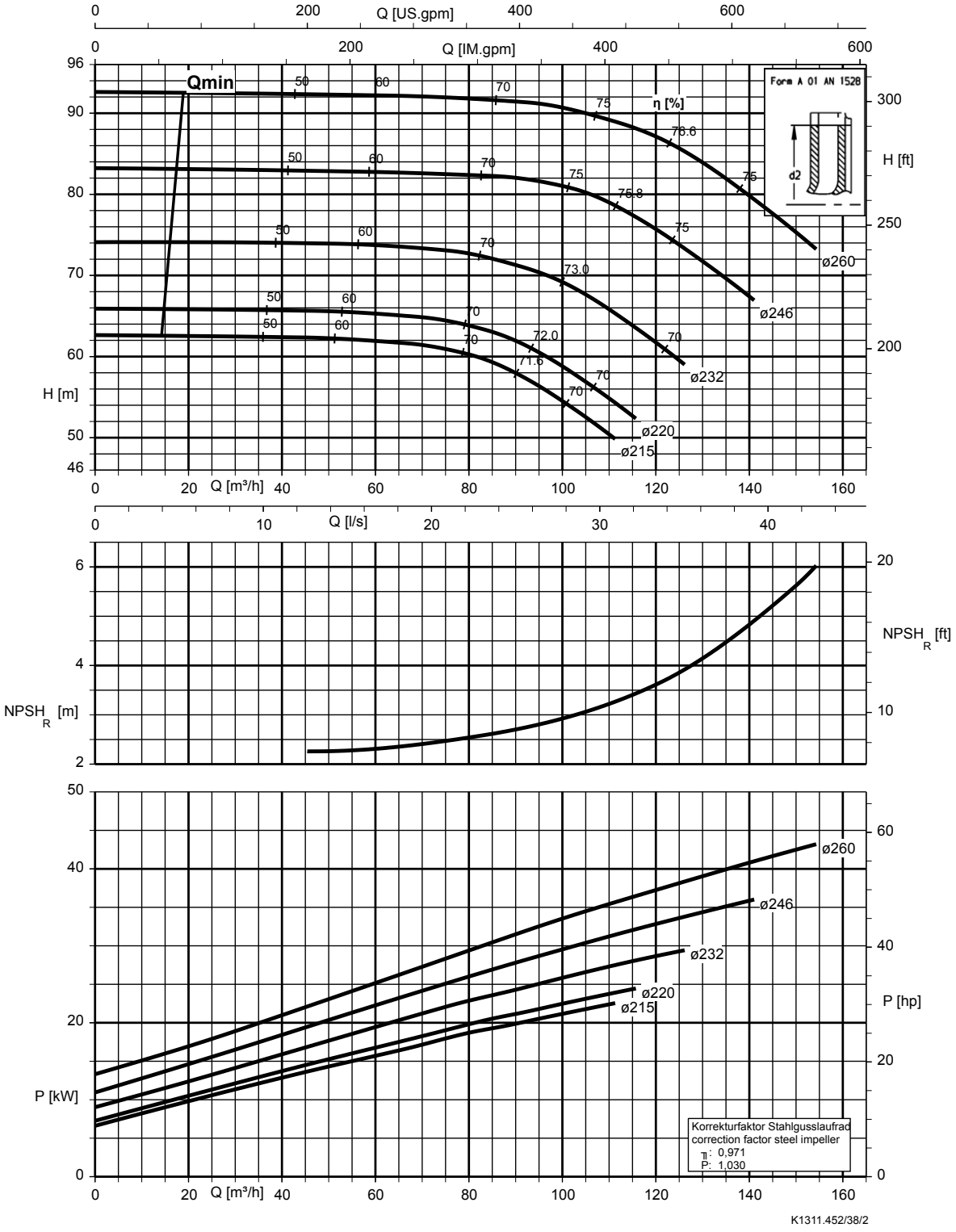
Etanorm 080-065-200, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



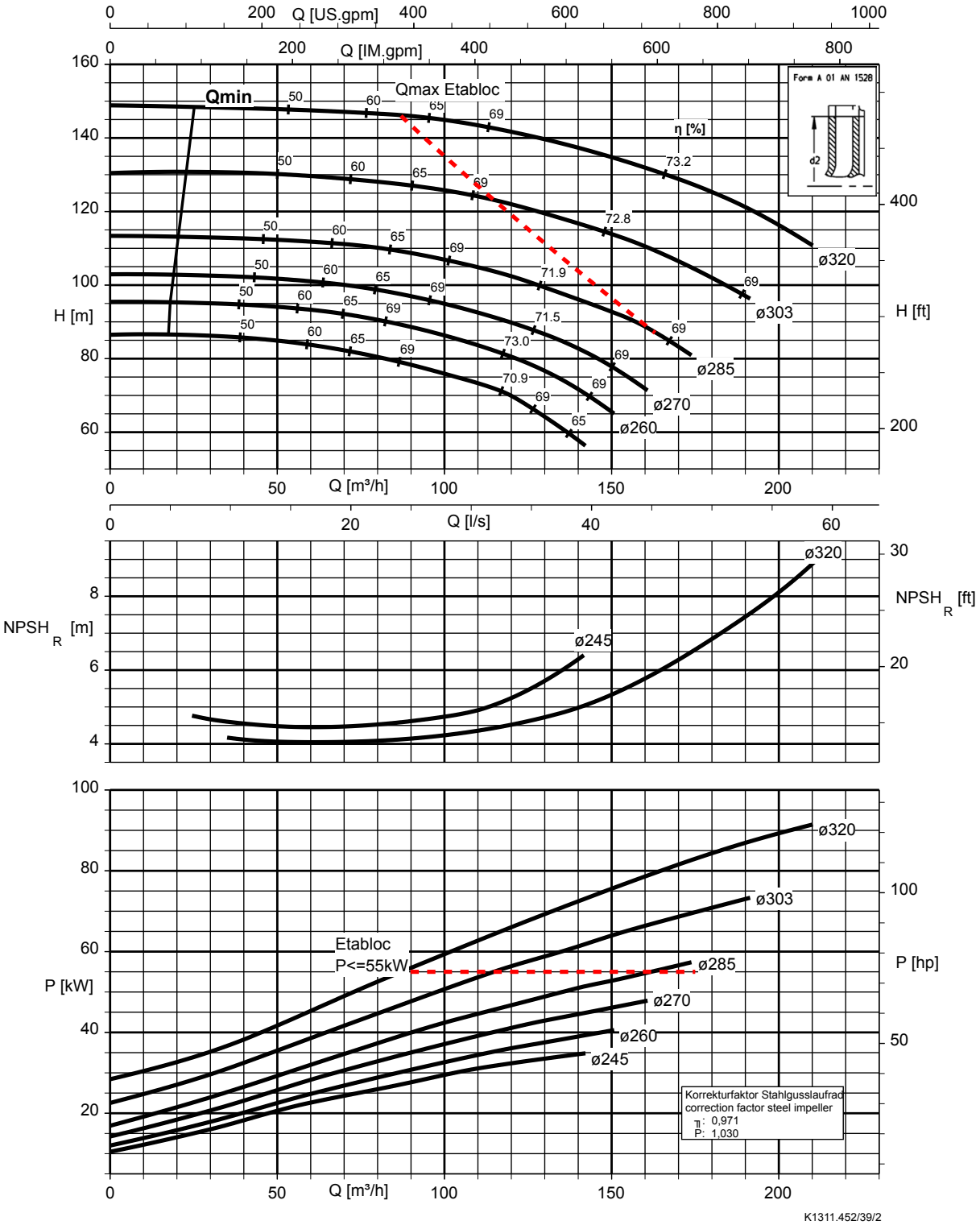
Etanorm 080-065-250, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc



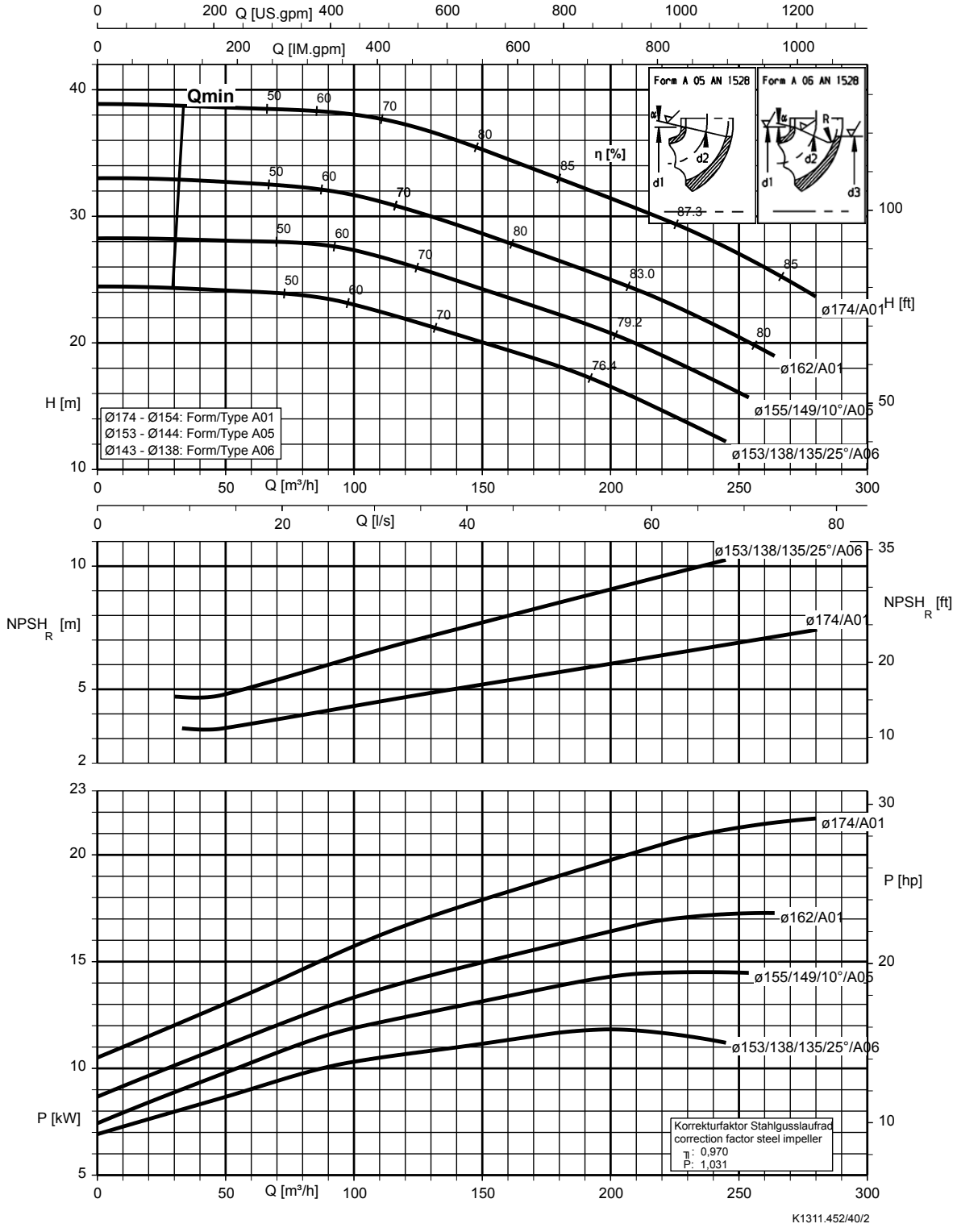
Etanorm 080-065-315, n = 2900 rpm

Etabloc



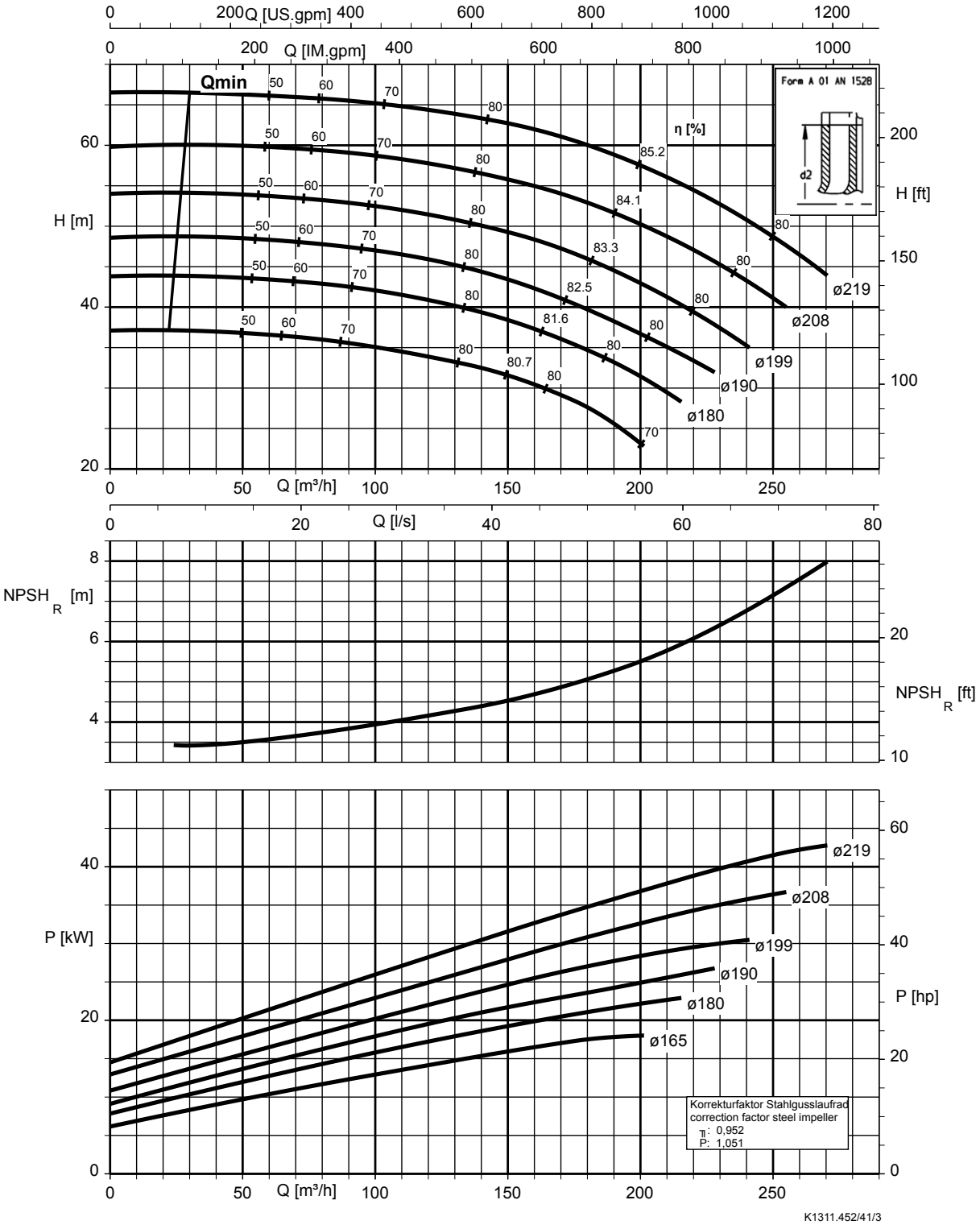
Etanorm 100-080-160, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



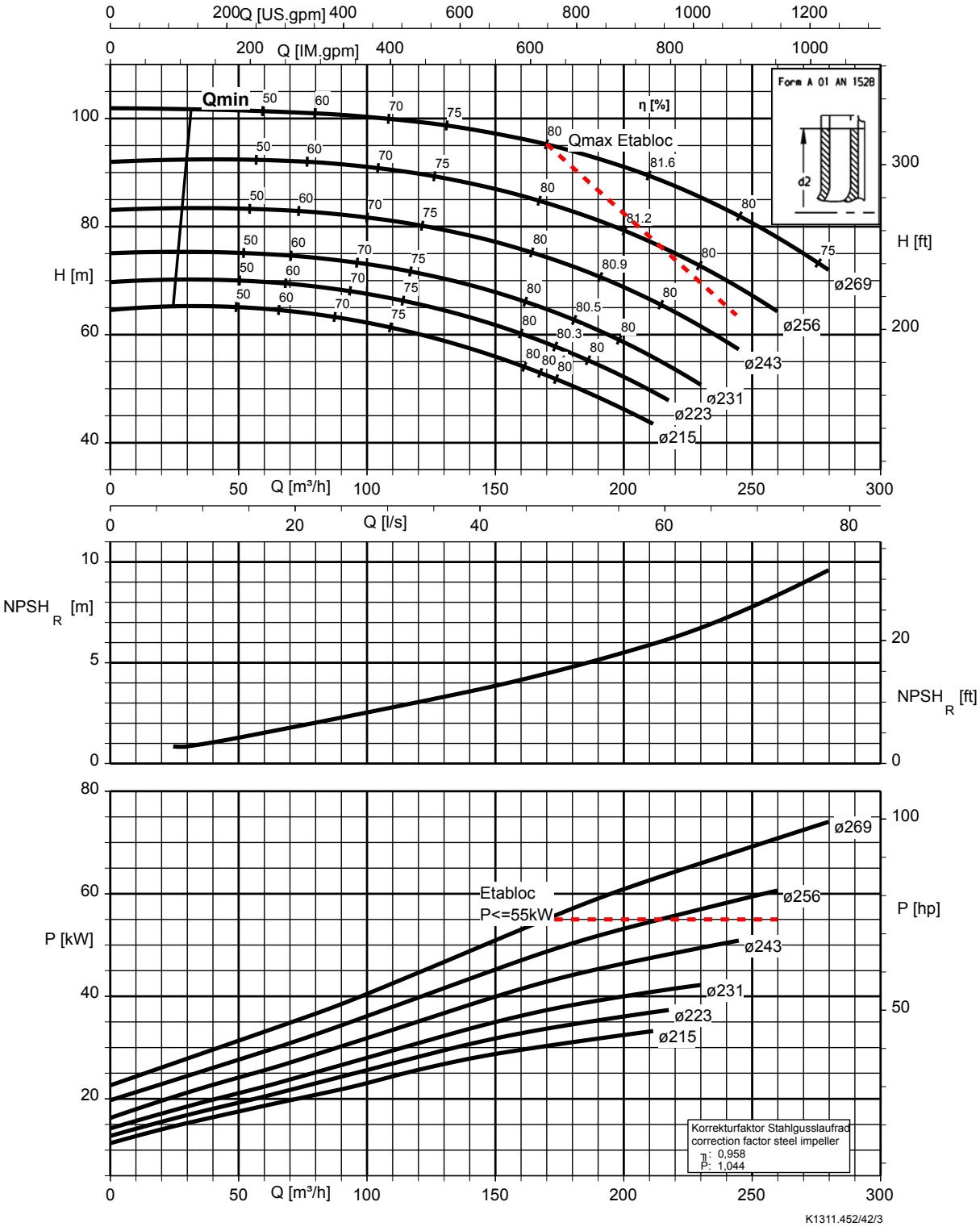
Etanorm 100-080-200, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc

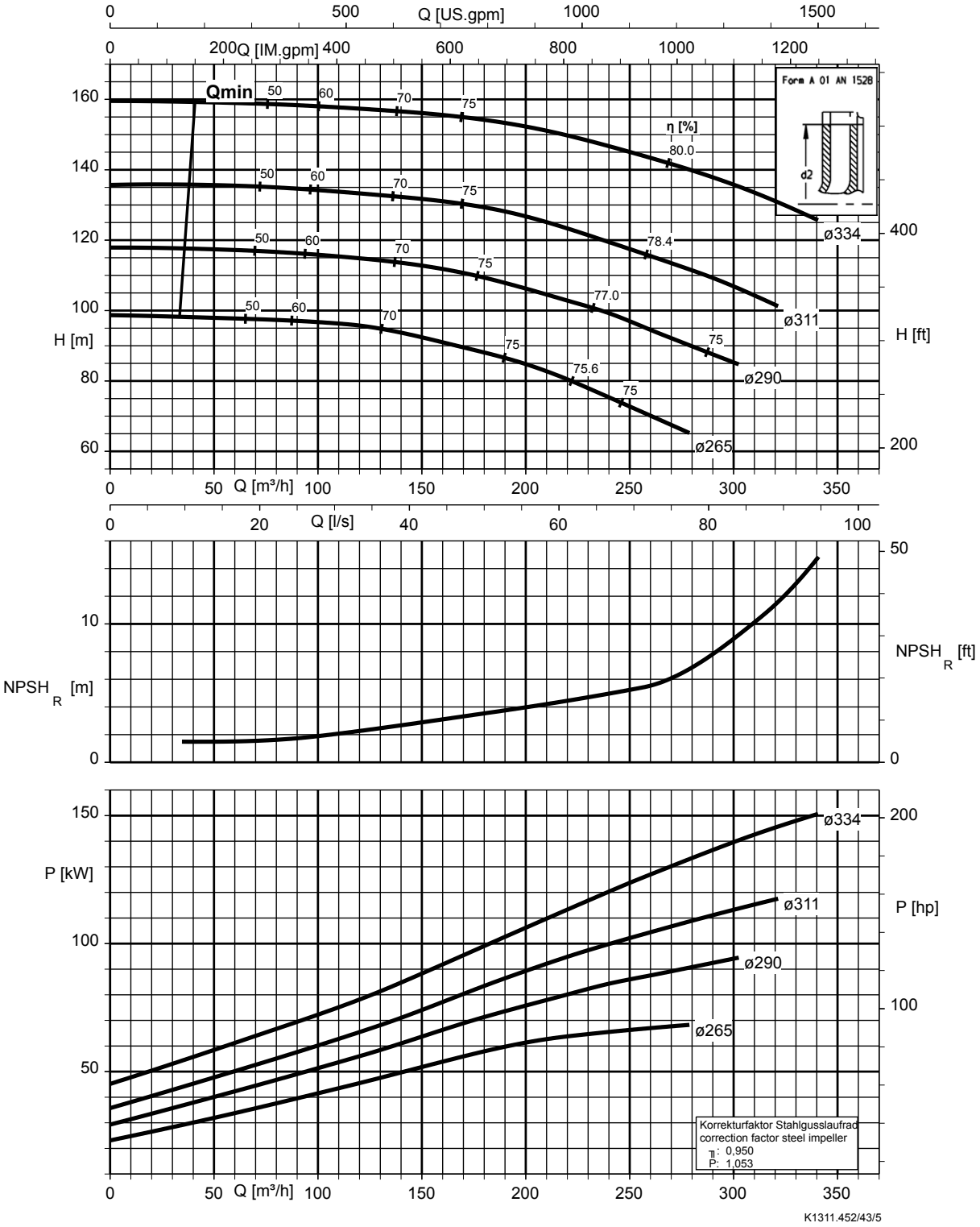


Etanorm 100-080-250, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc

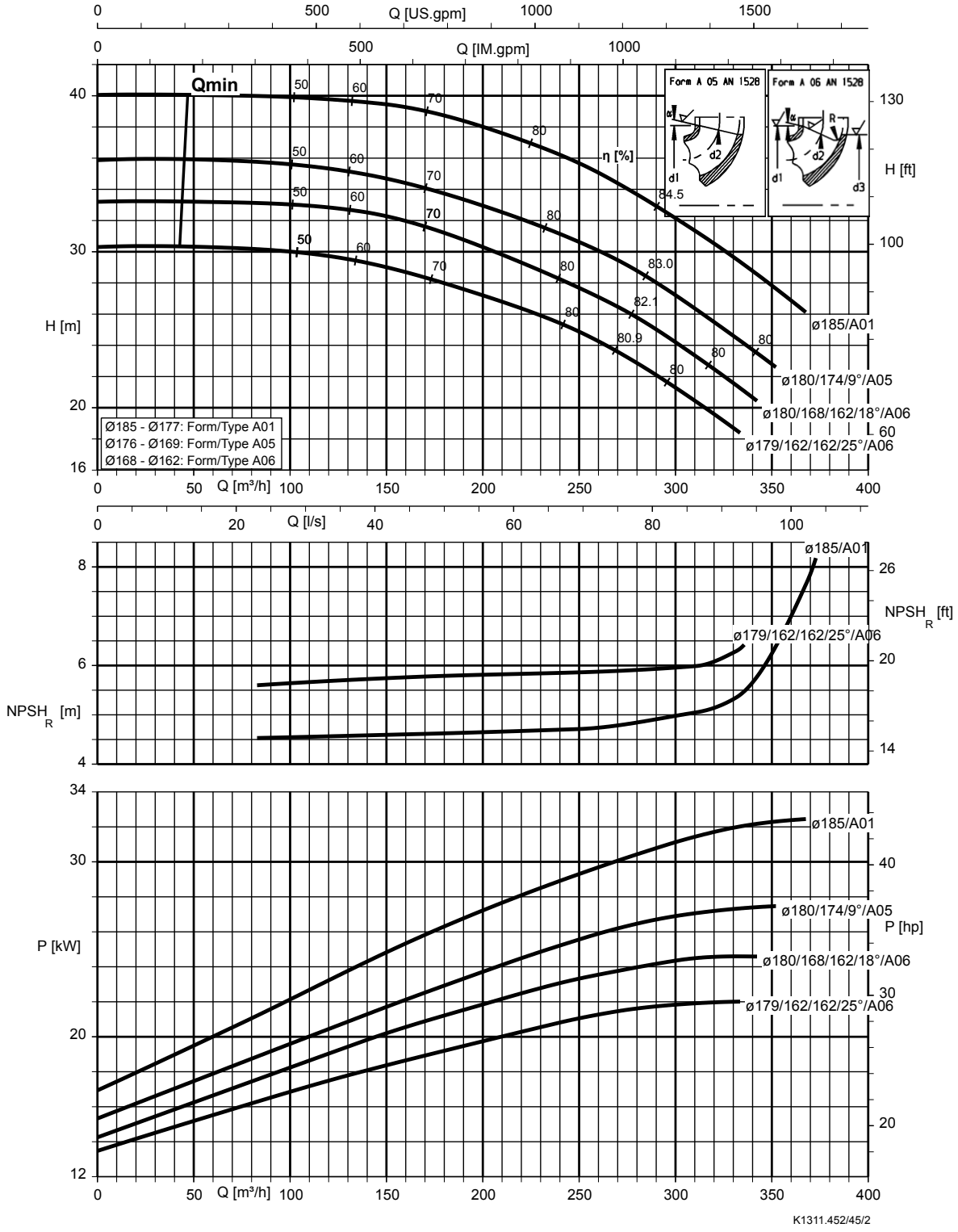


Etanorm 100-080-315, n = 2900 rpm



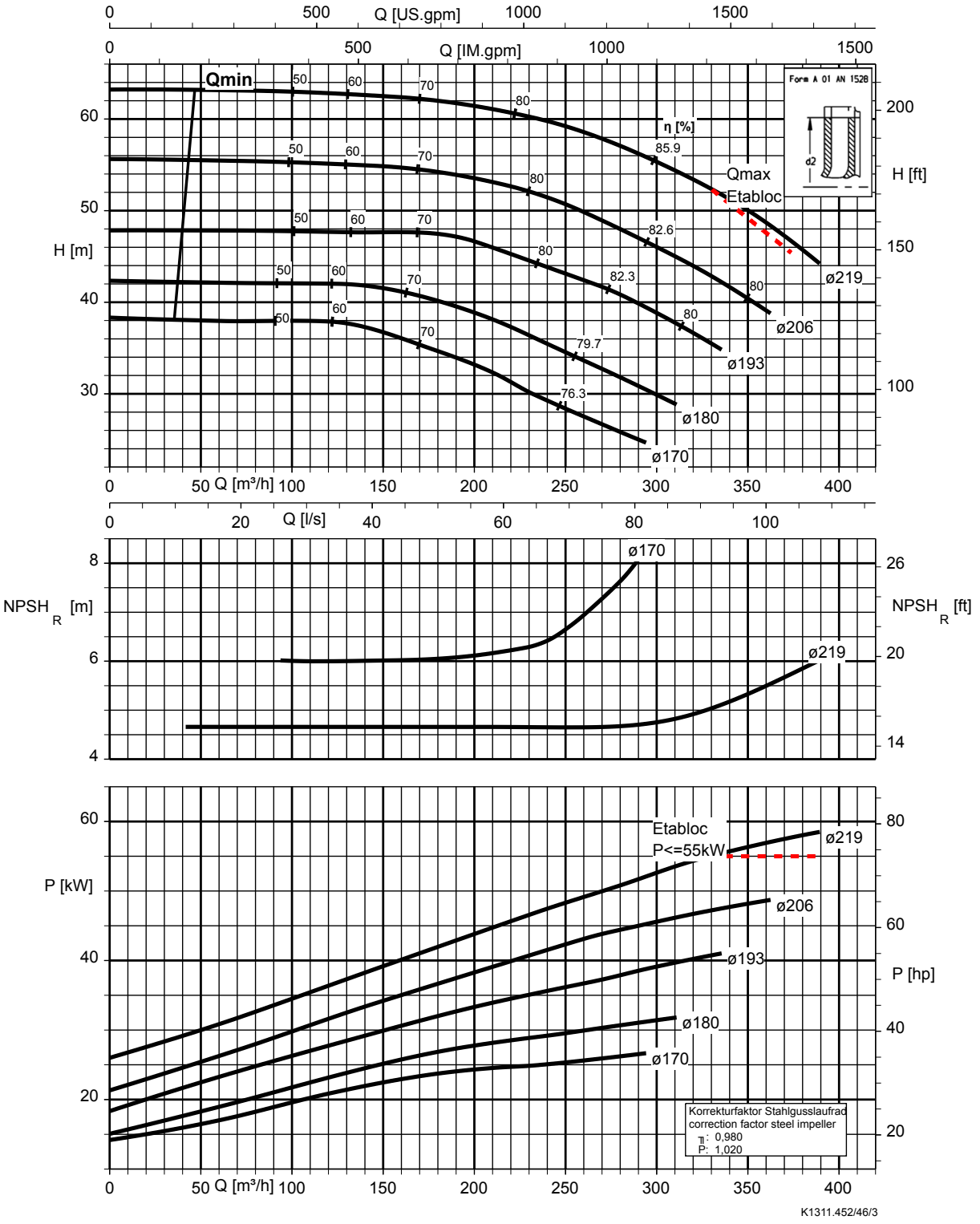
Etanorm 125-100-160, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc



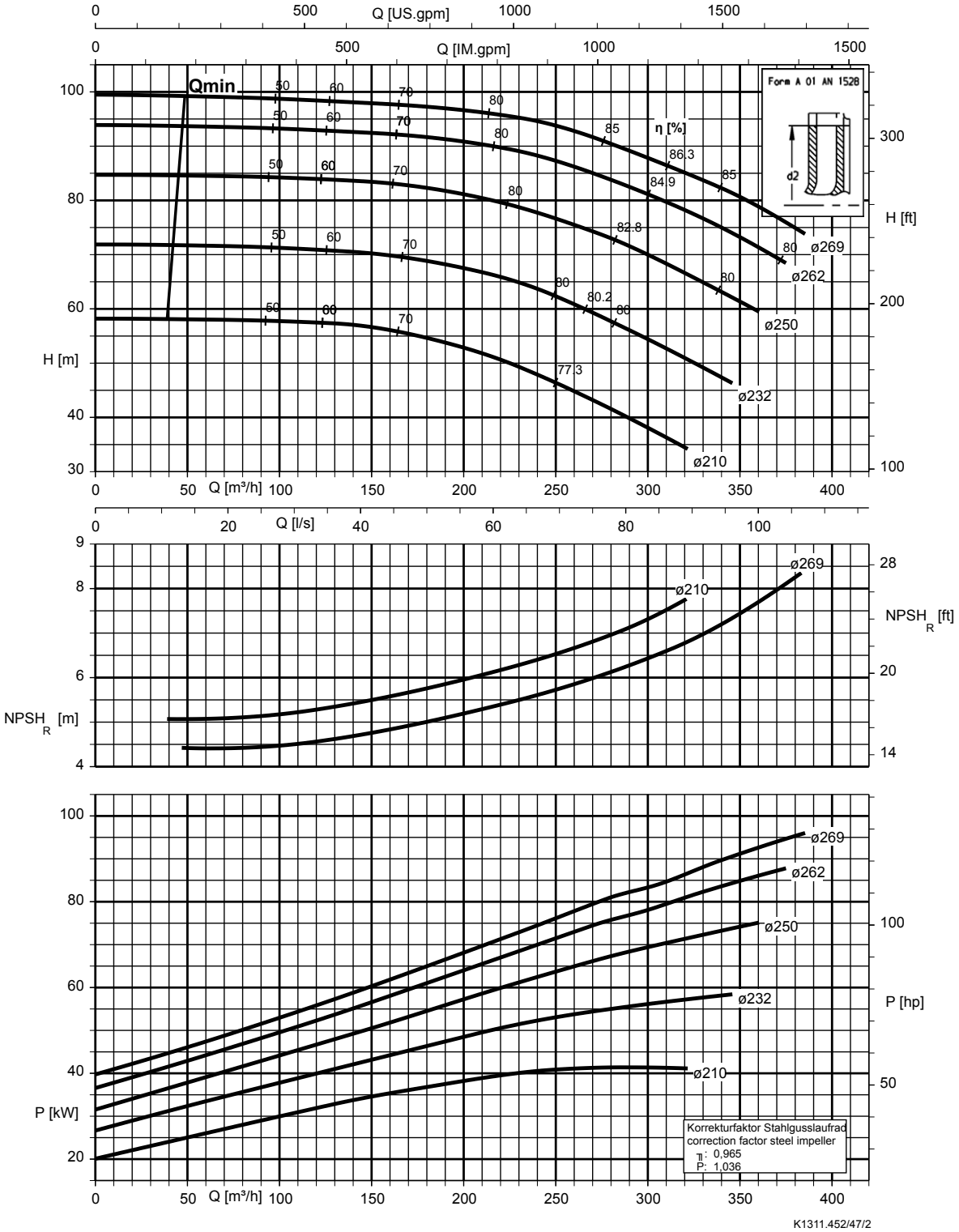
Etanorm 125-100-200, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc

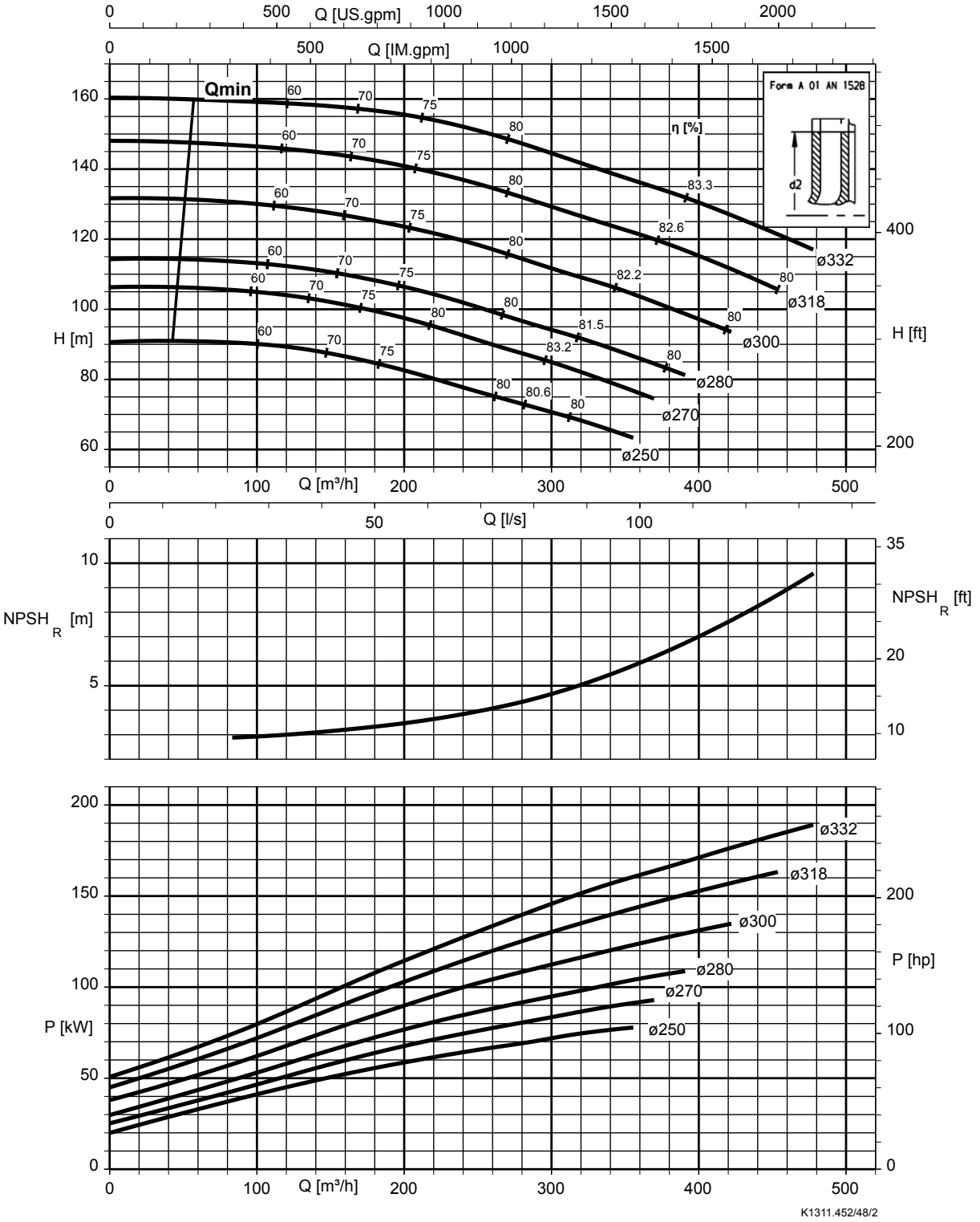


Etanorm 125-100-250, n = 2900 rpm

Etanorm SYT, Etanorm V, Etabloc

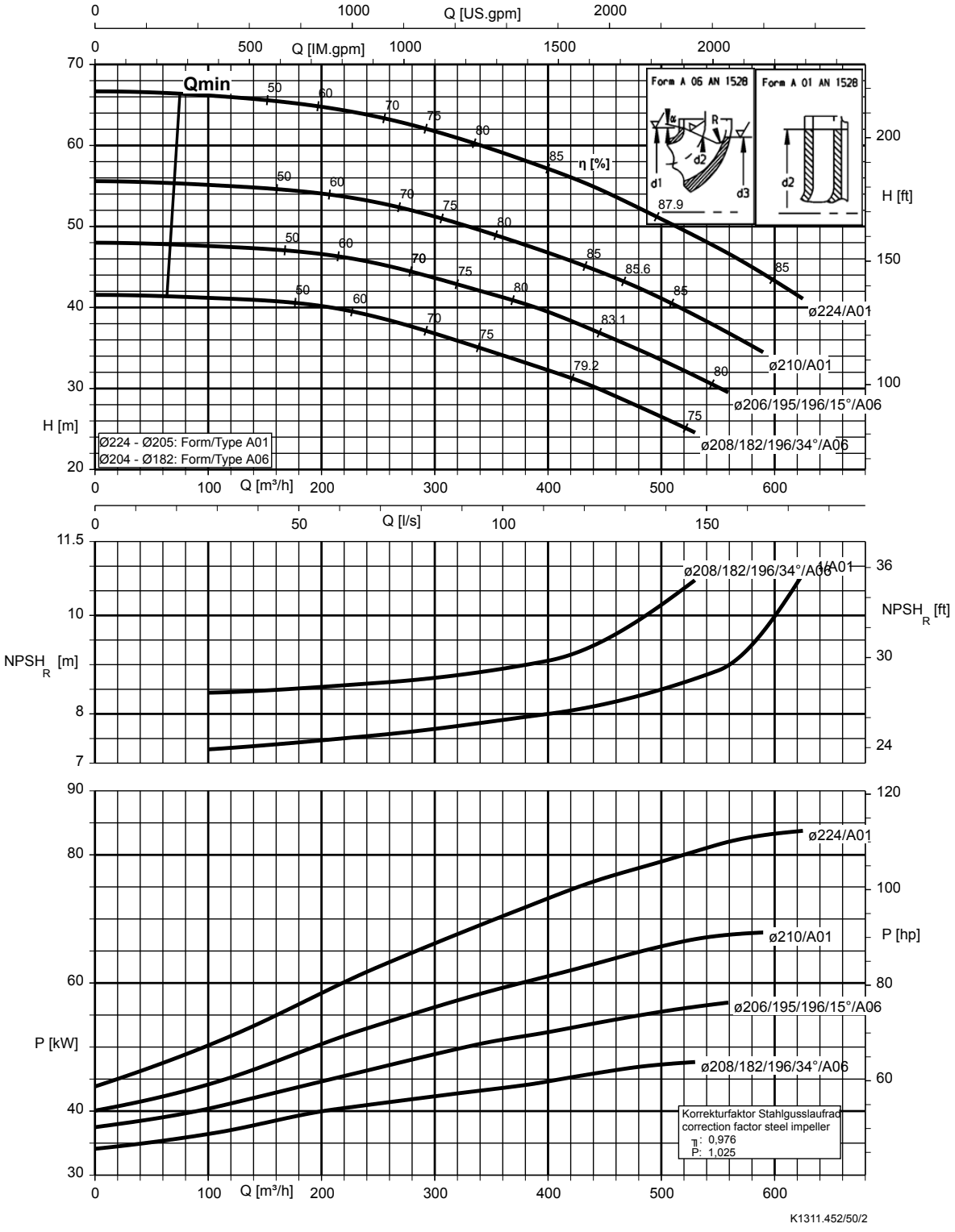


Etanorm 125-100-315, n = 2900 rpm



Etanorm 150-125-200, n = 2900 rpm

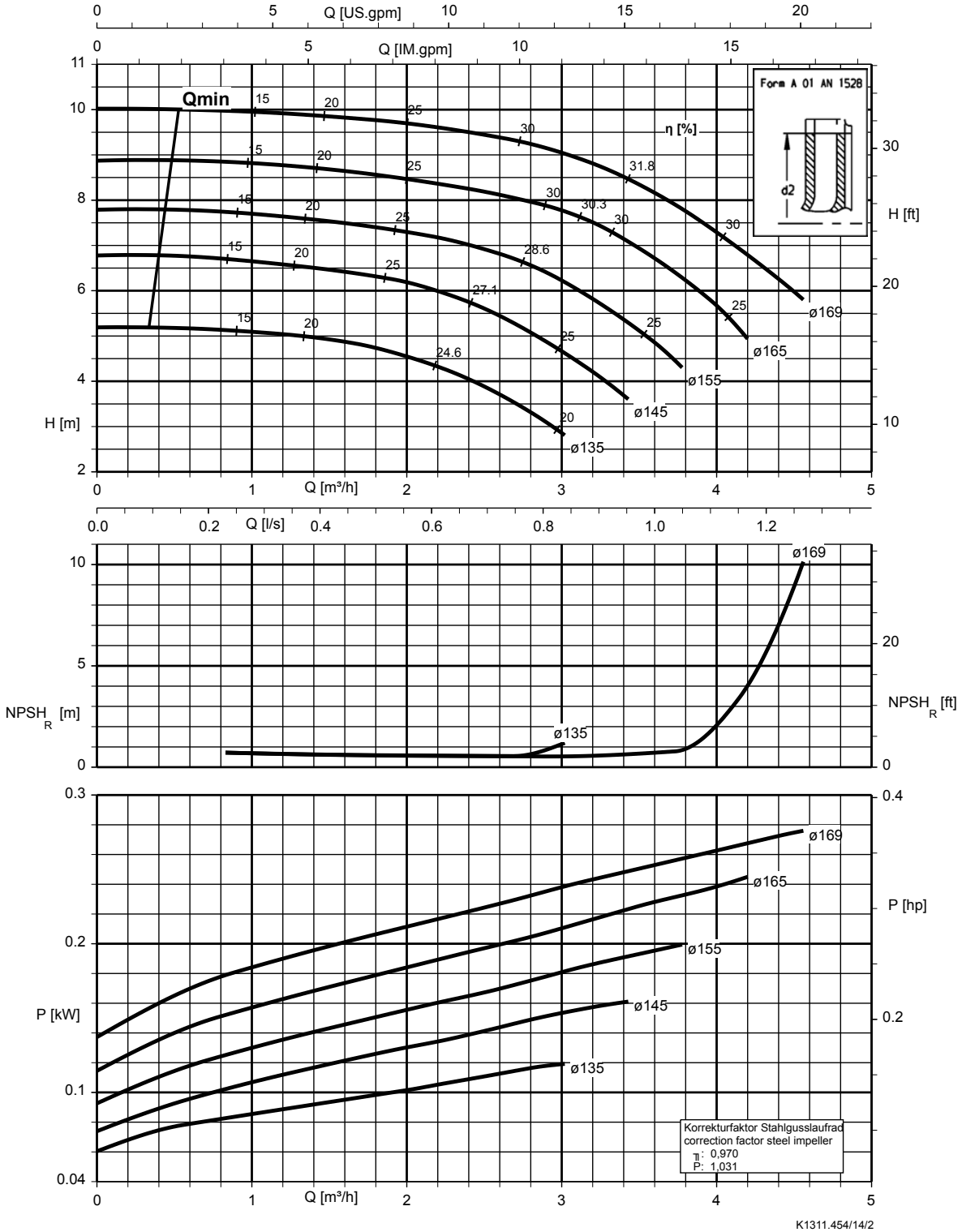
Etanorm SYT, Etanorm V, Etabloc



n = 1450 rpm

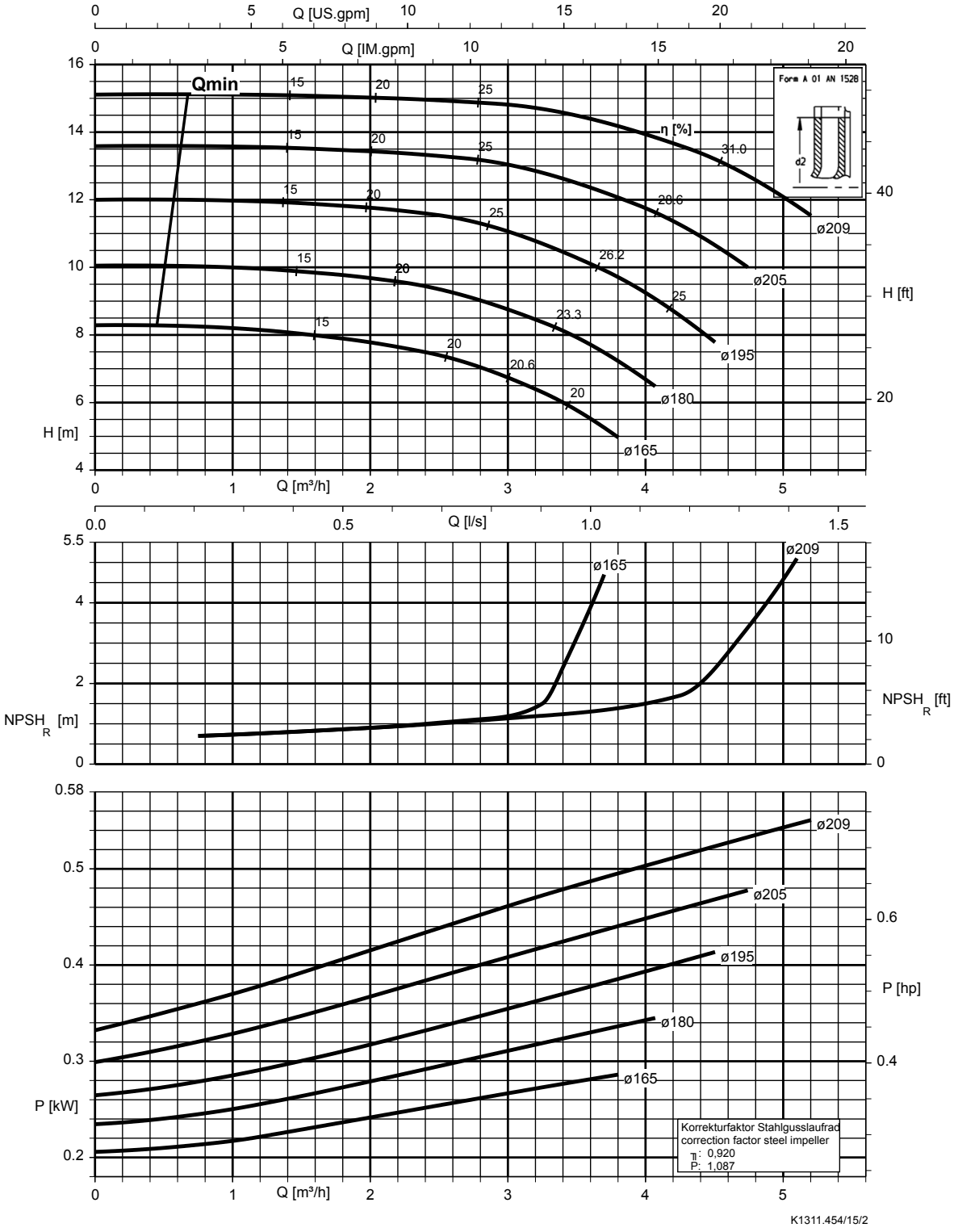
Etanorm 040-025-160, n = 1450 rpm

Etanorm SYT, Etabloc, Etabloc SYT



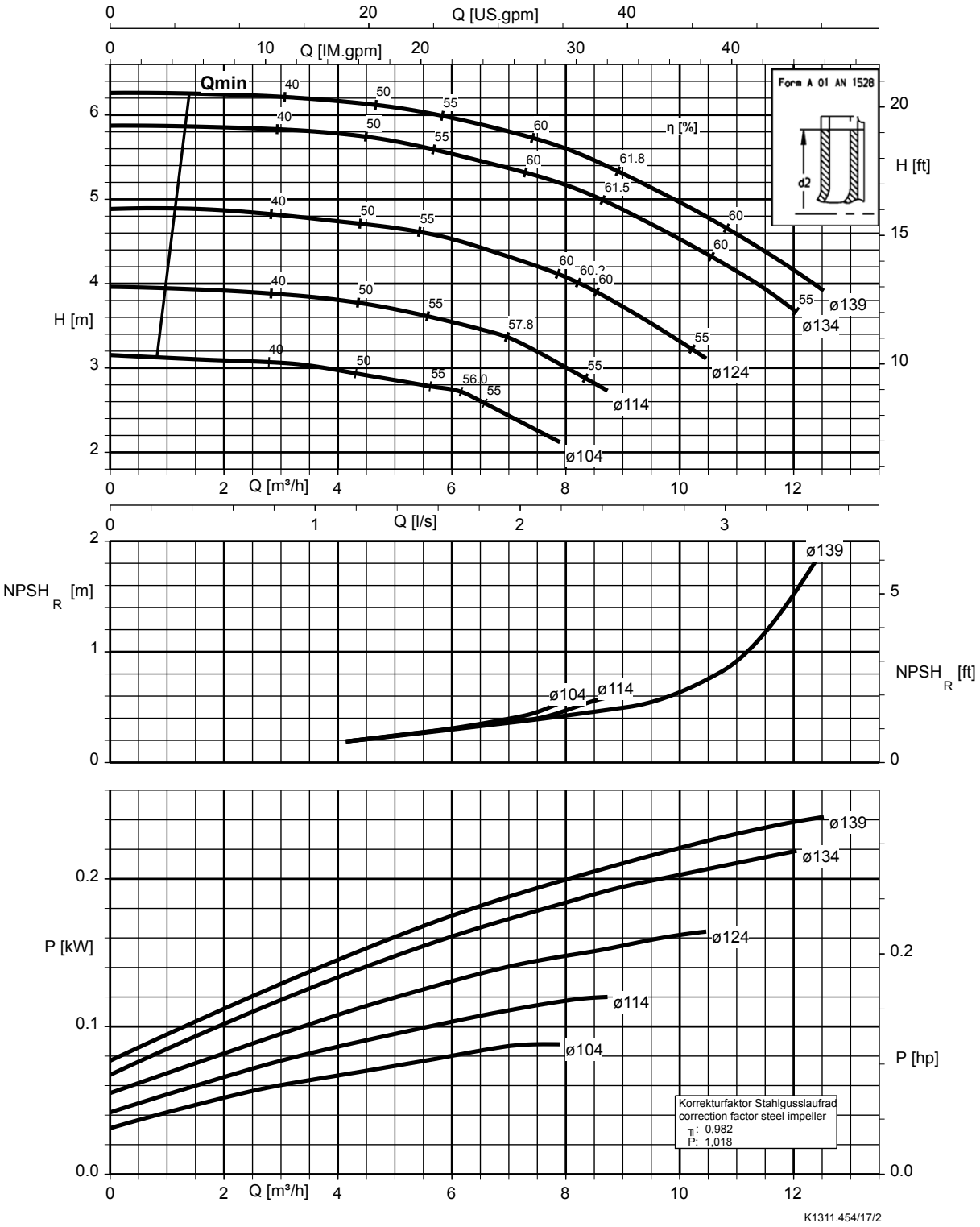
Etanorm 040-025-200, n = 1450 rpm

Etanorm SYT, Etabloc, Etabloc SYT



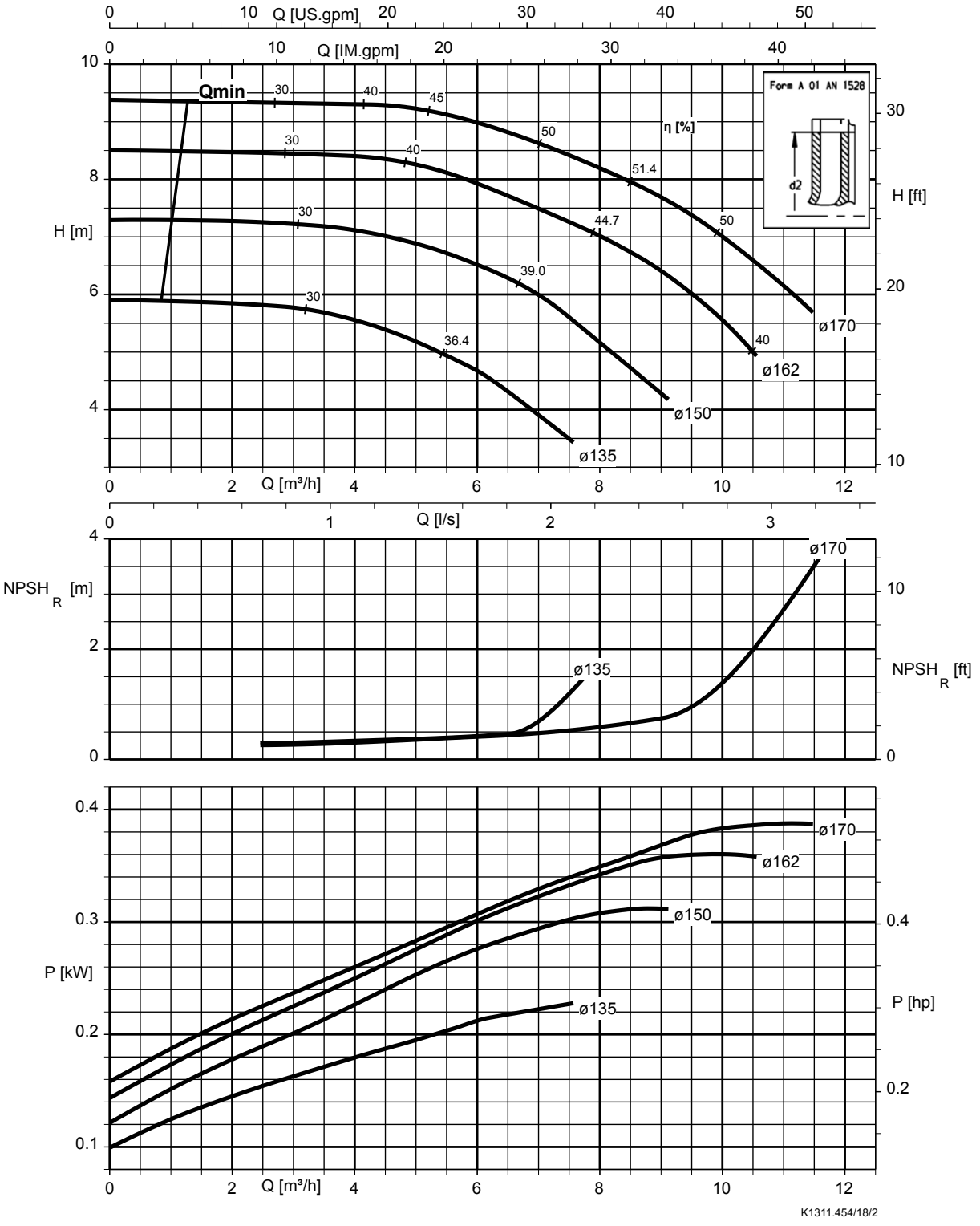
Etanorm 050-032-125.1, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



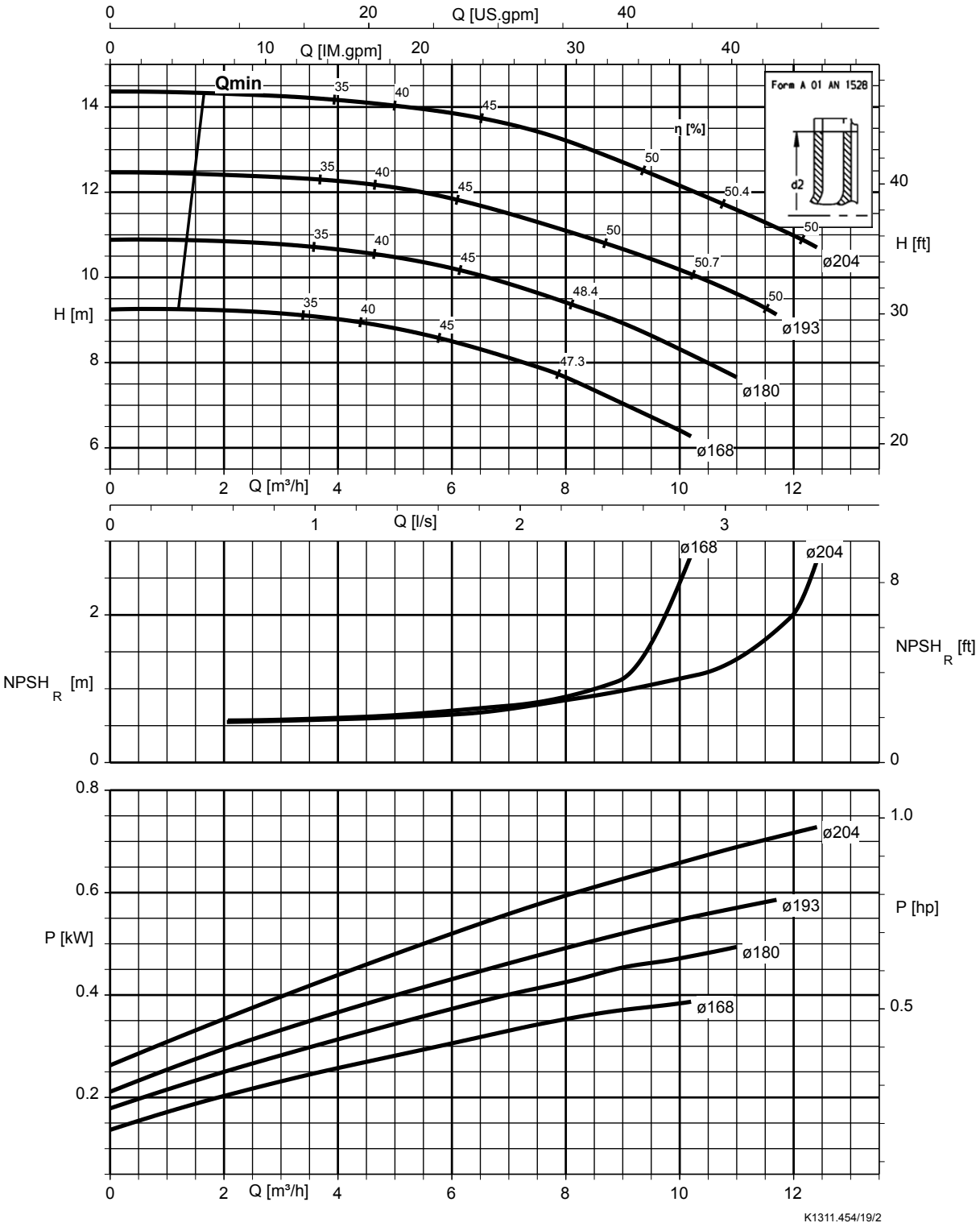
Etanorm 050-032-160.1, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



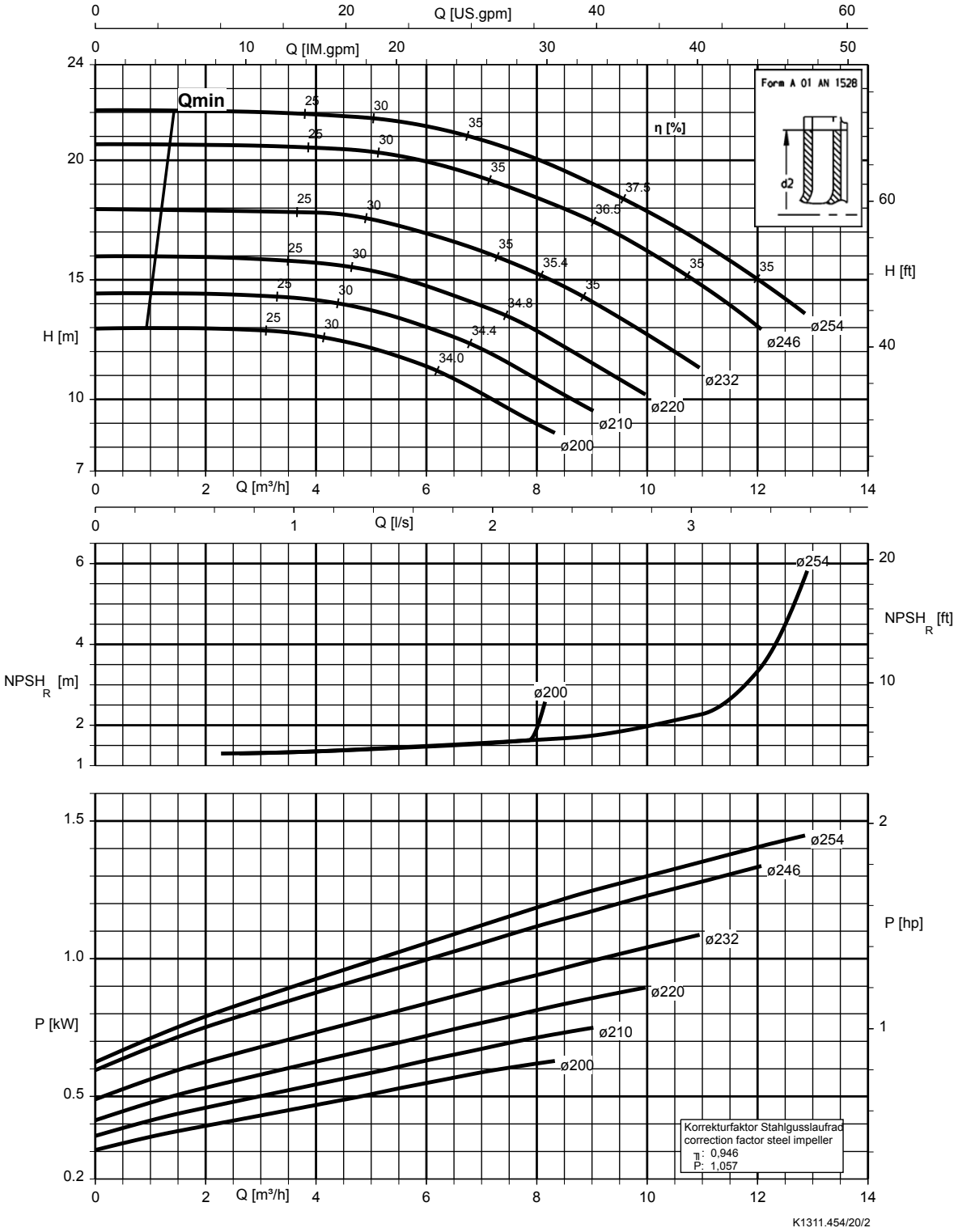
Etanorm 050-032-200.1, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



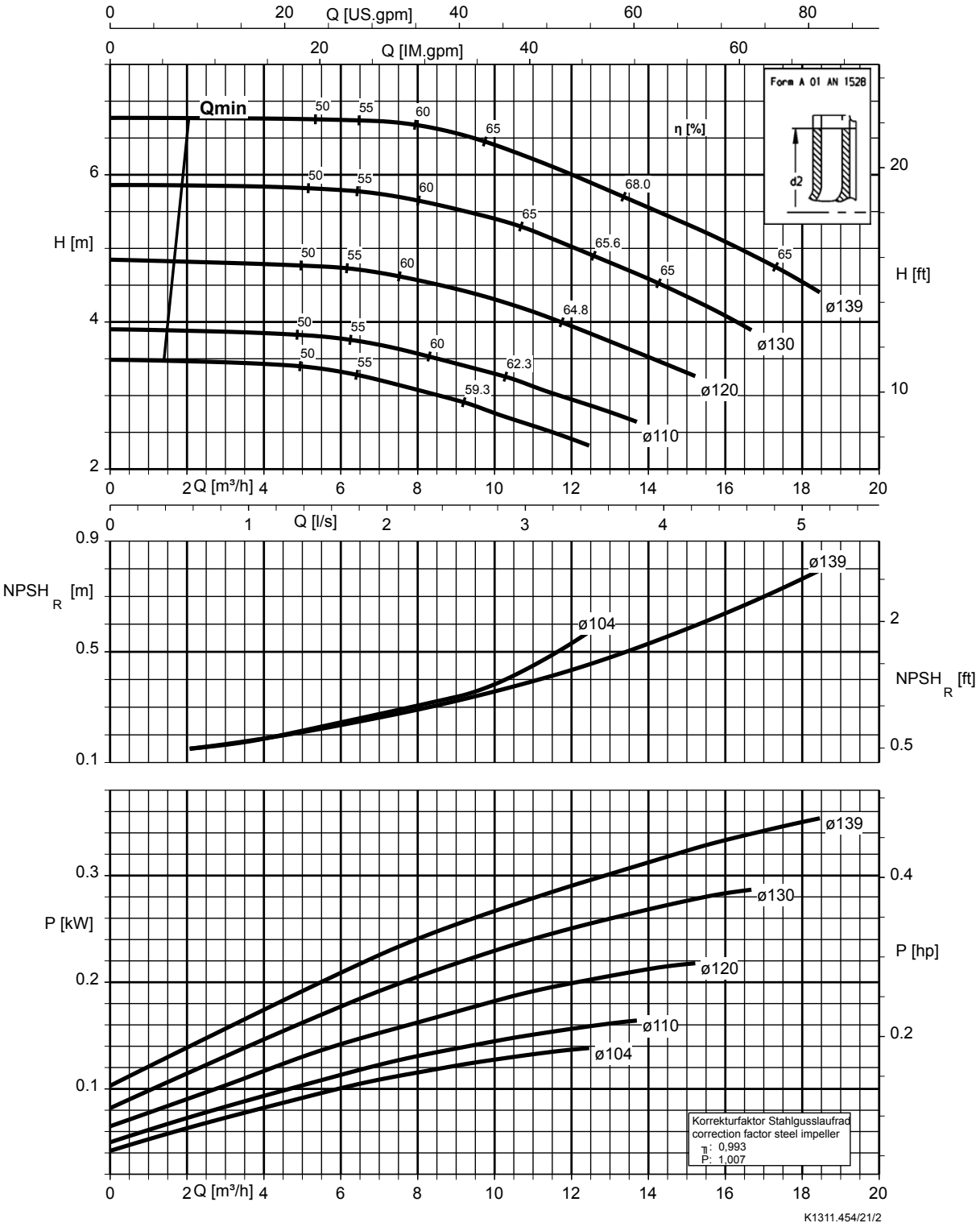
Etanorm 050-032-250.1, n = 1450 rpm

Etanorm V, Etabloc



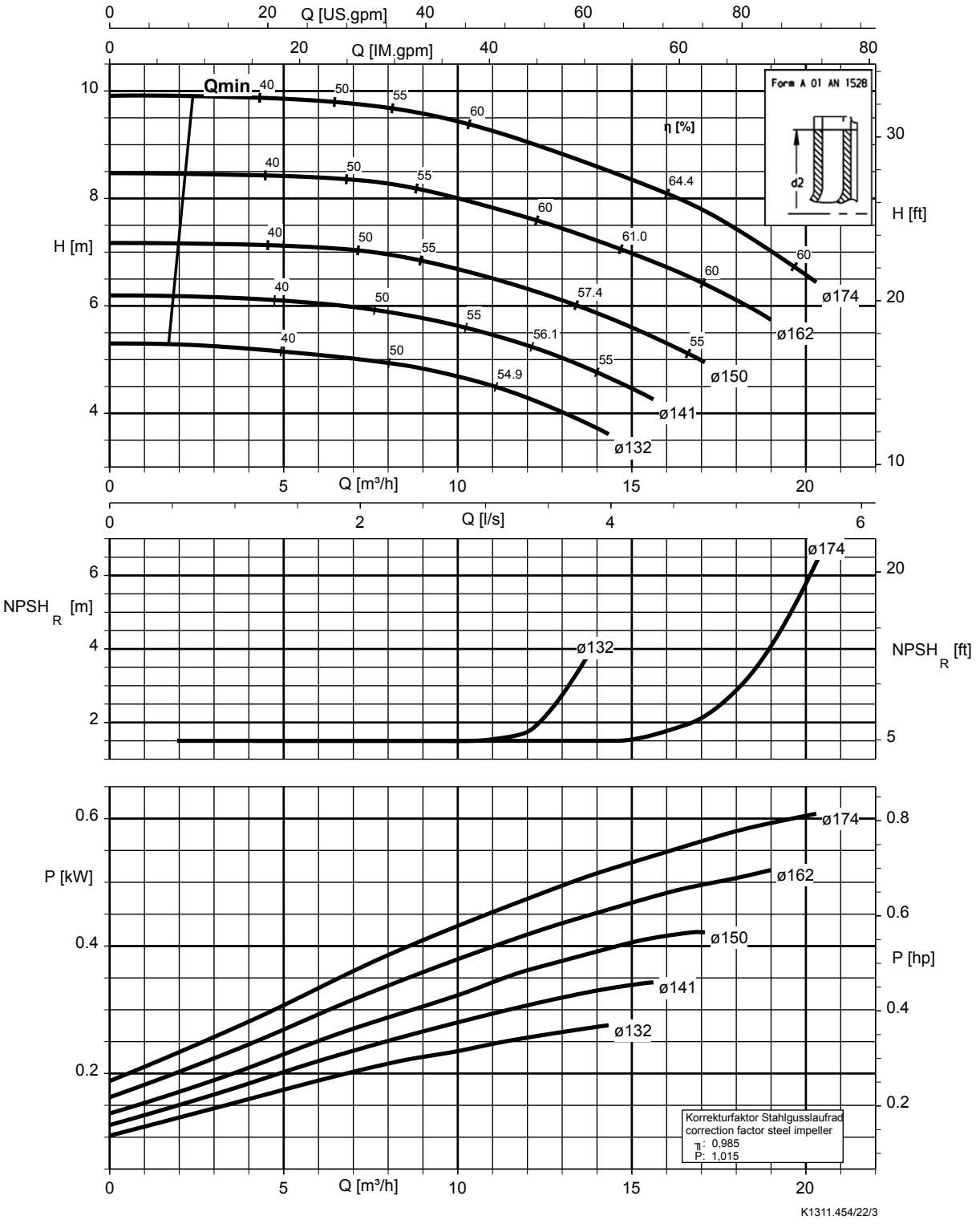
Etanorm 050-032-125, n = 1450 rpm

Etanorm V, Etabloc



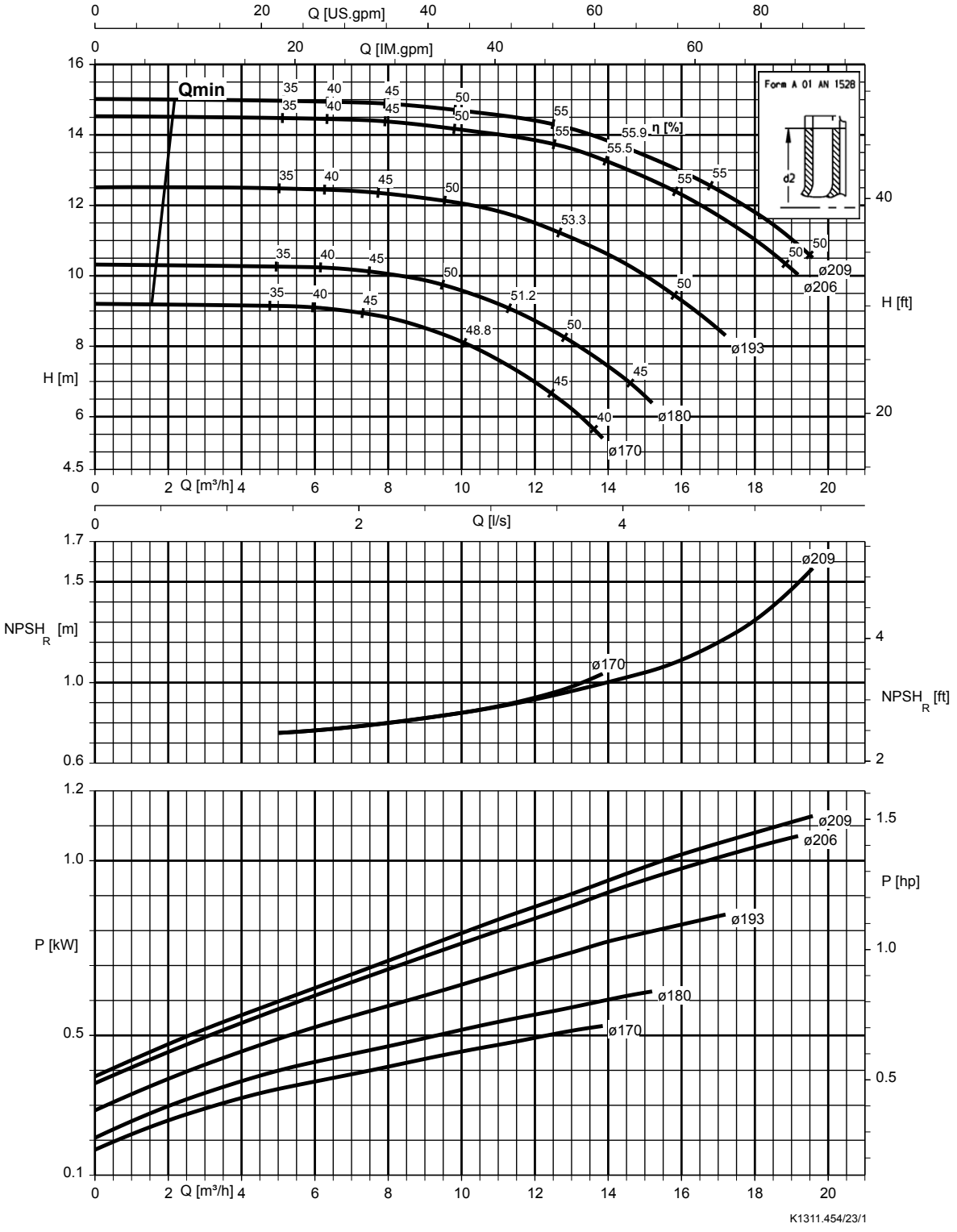
Etanorm 050-032-160, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



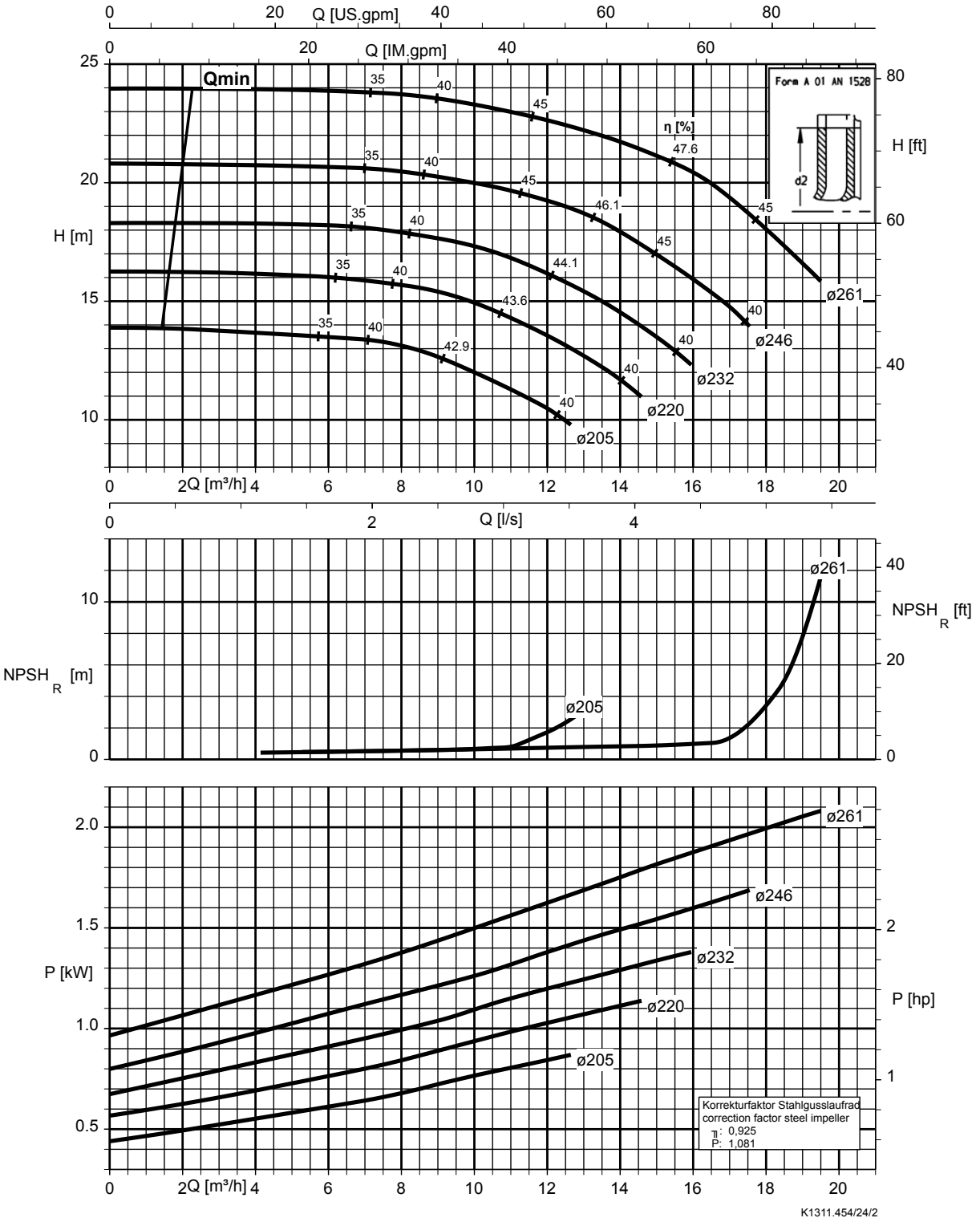
Etanorm 050-032-200, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



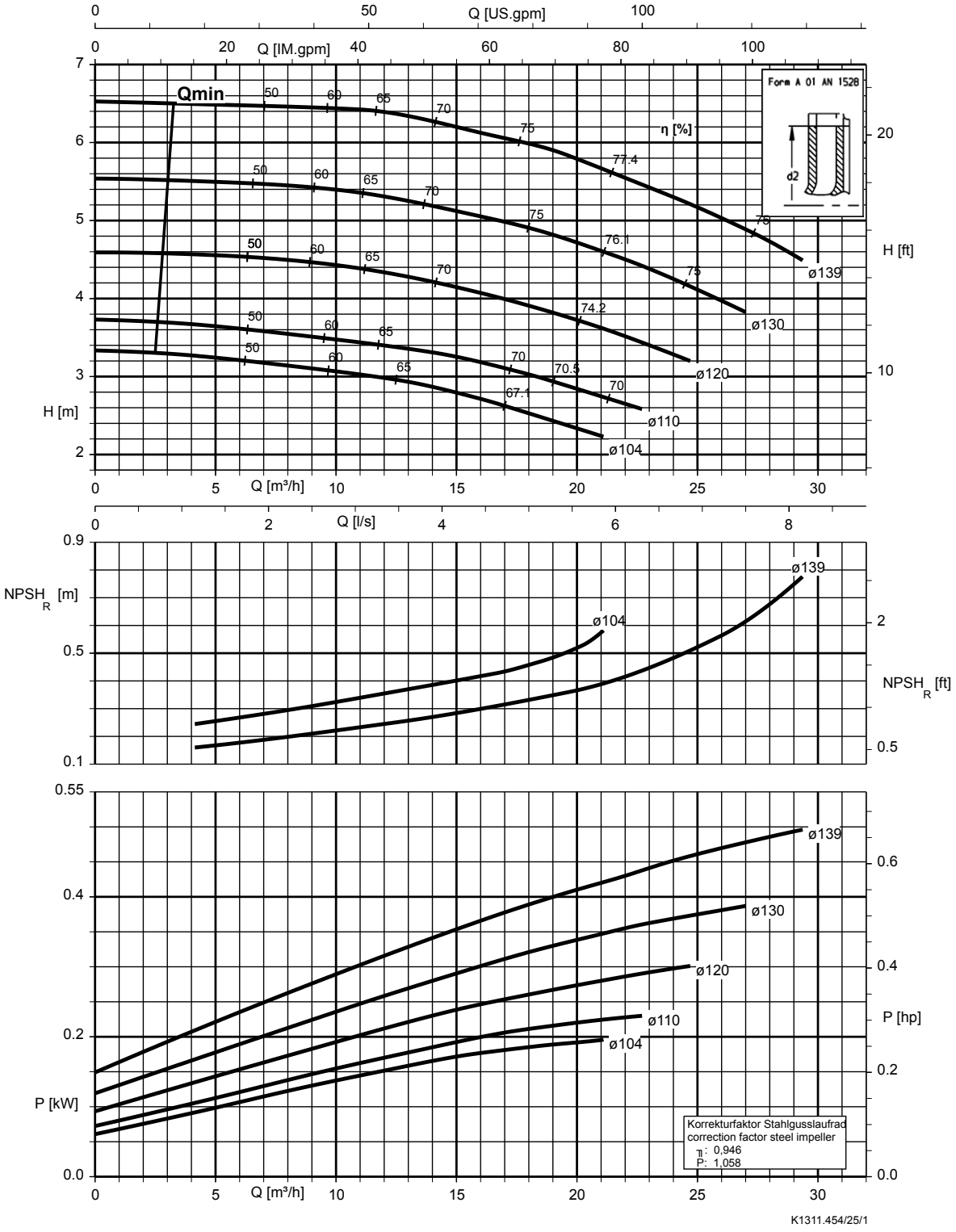
Etanorm 050-032-250, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



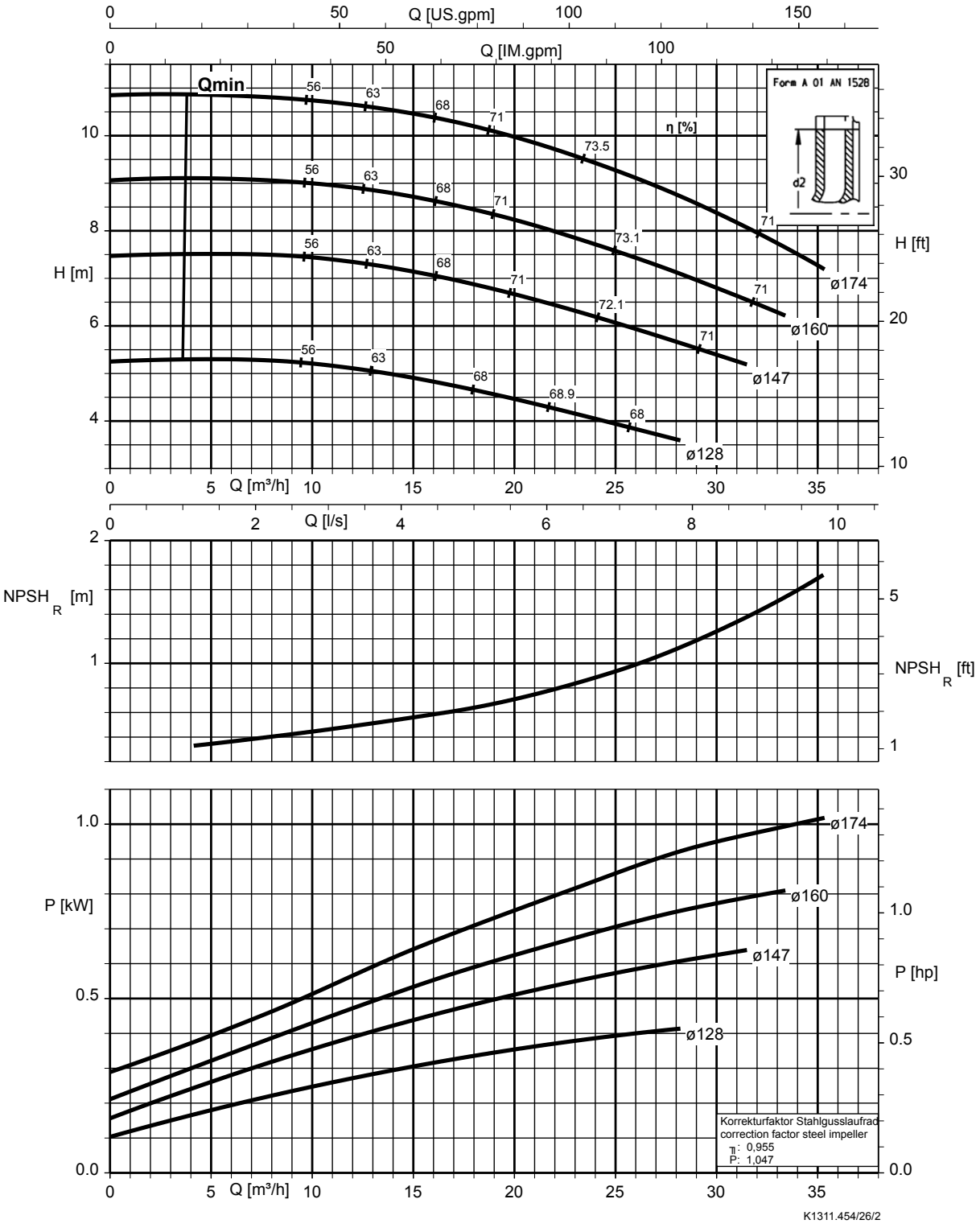
Etanorm 065-040-125, n = 1450 rpm

Etanorm V, Etabloc



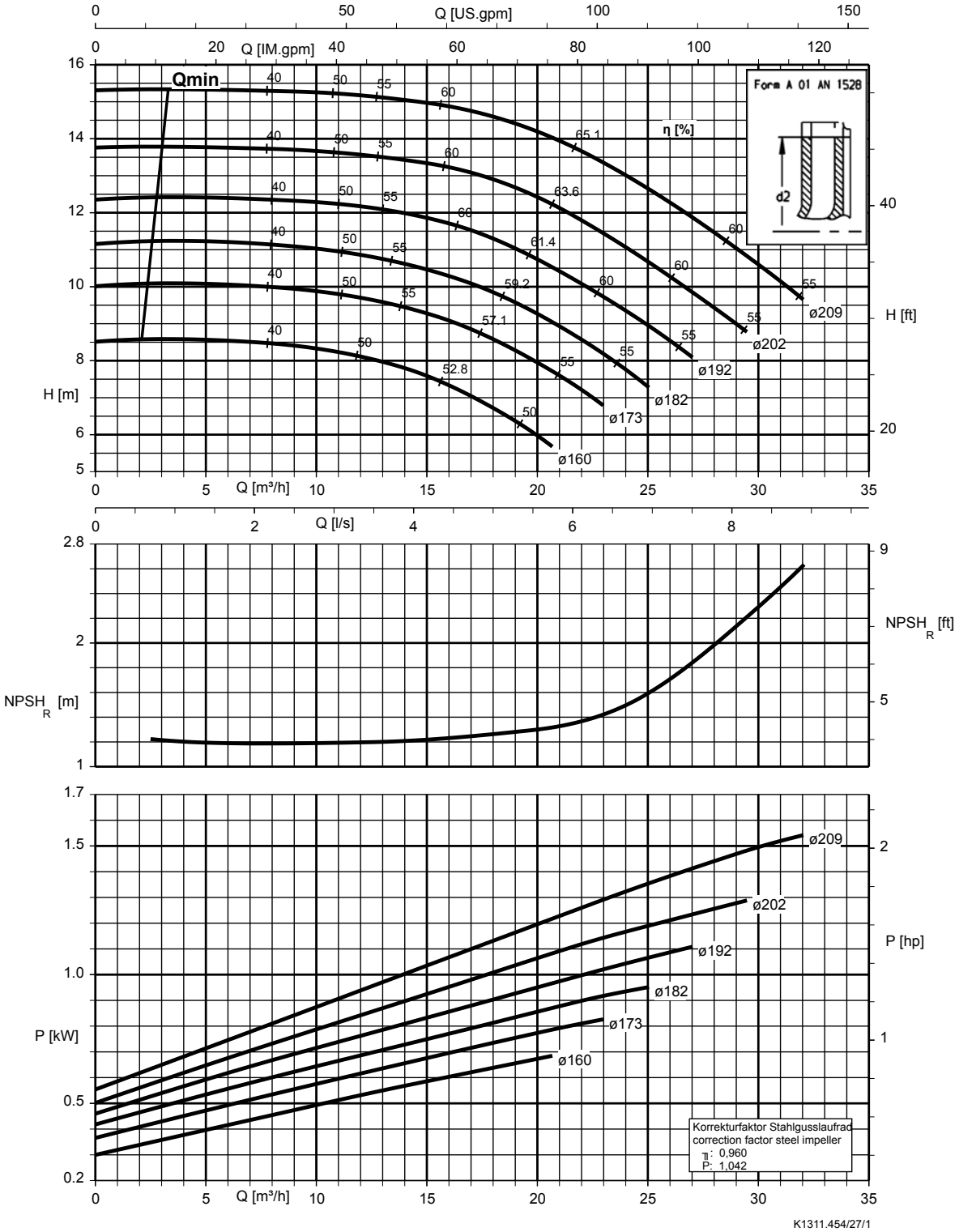
Etanorm 065-040-160, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



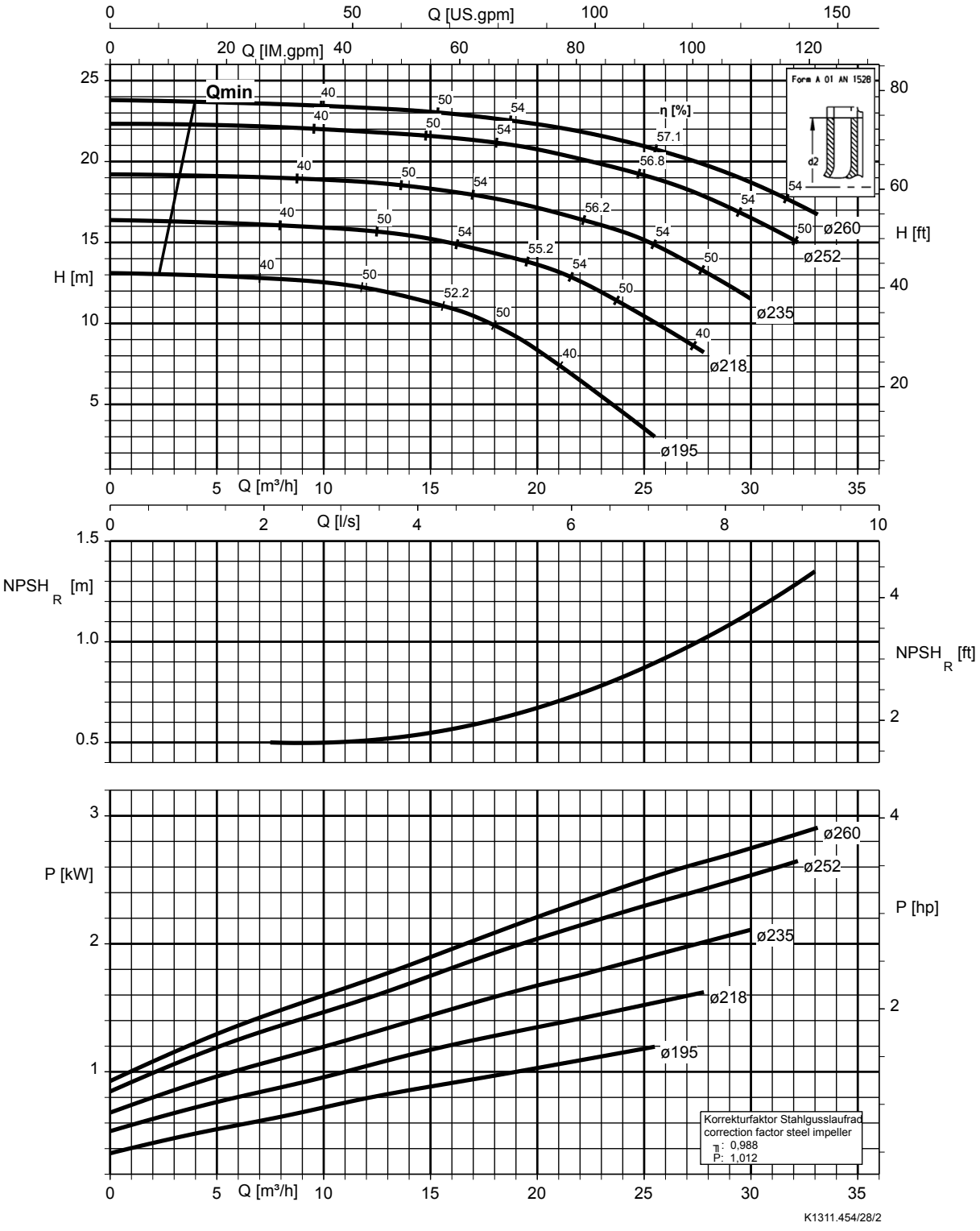
Etanorm 065-040-200, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



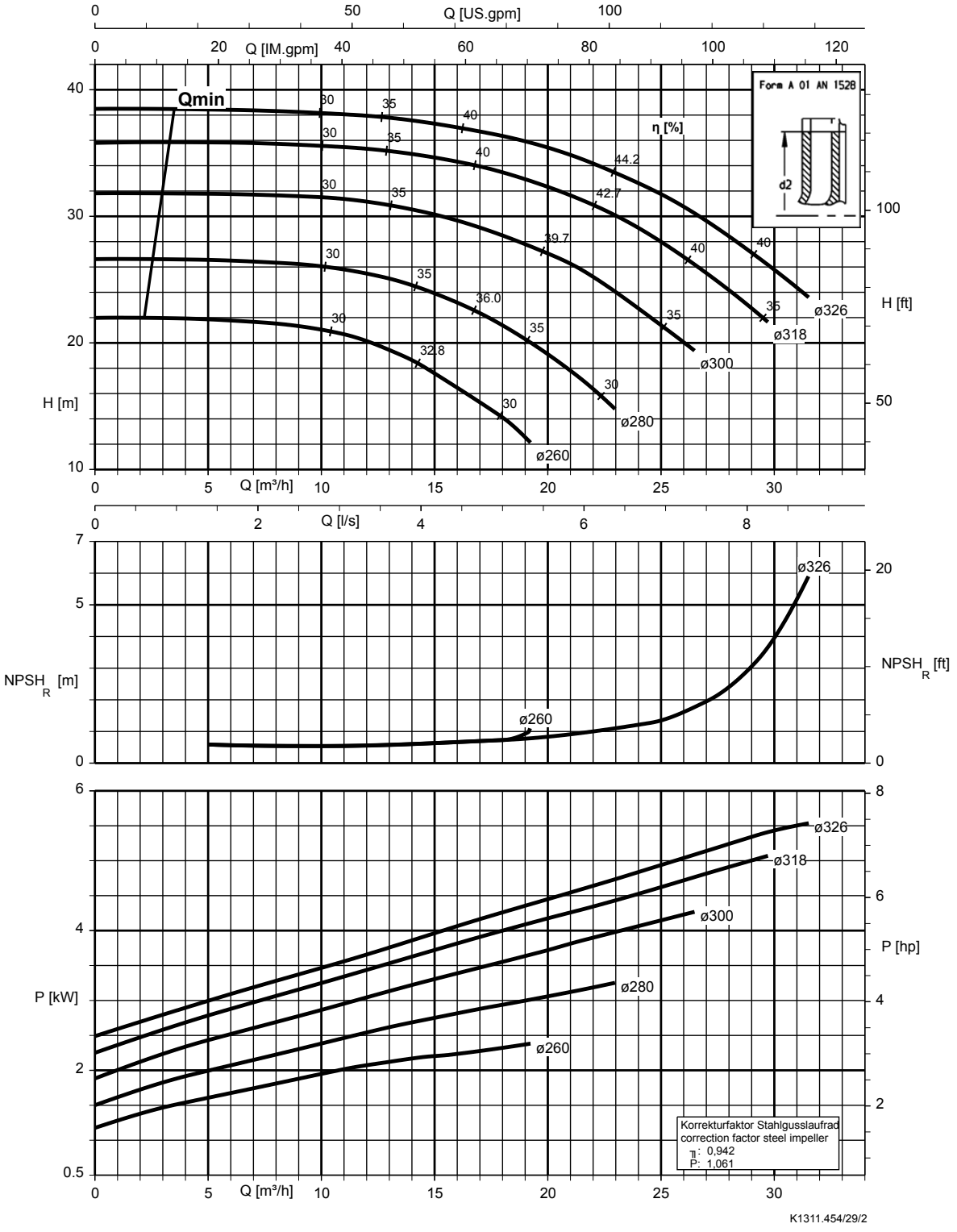
Etanorm 065-040-250, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



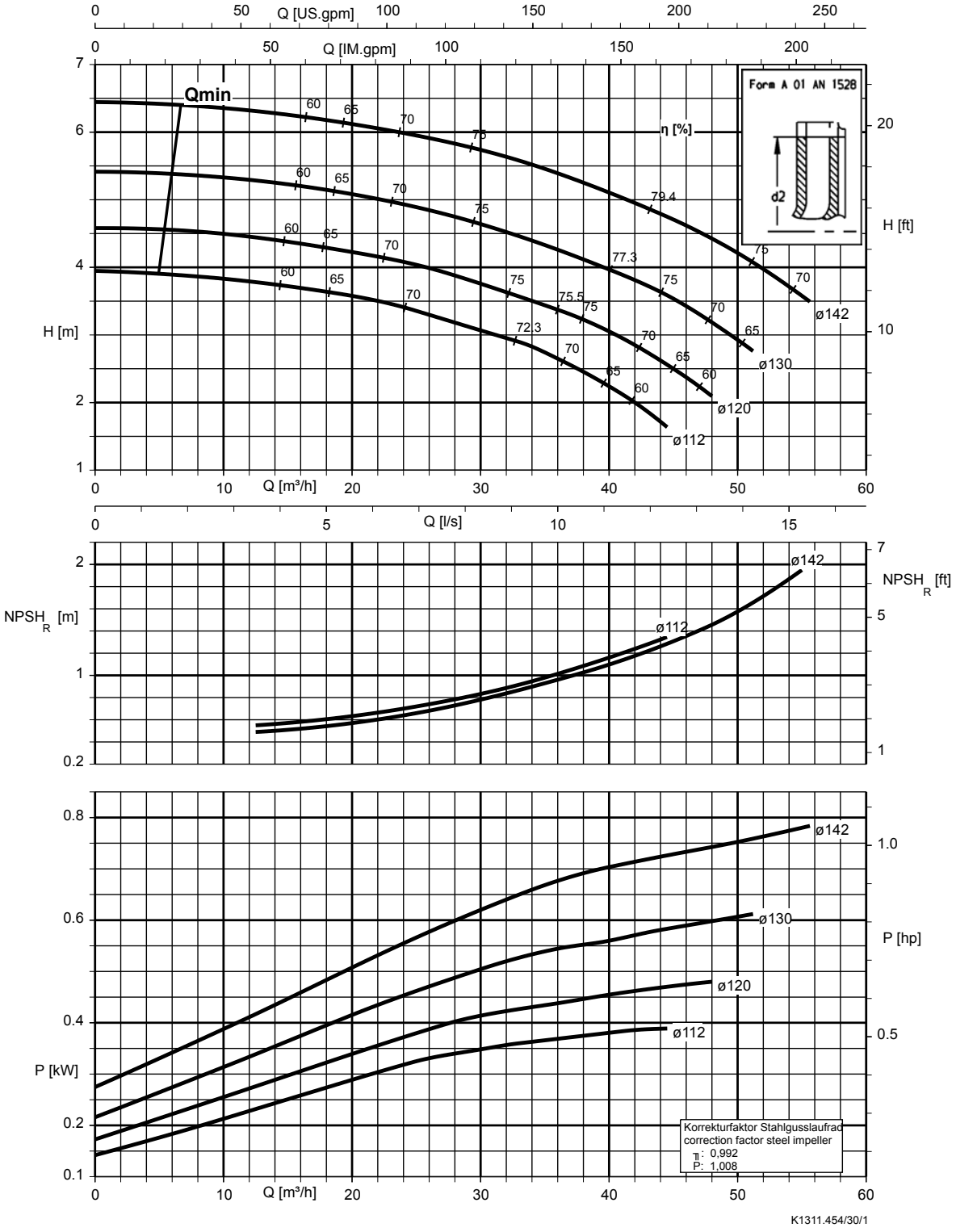
Etanorm 065-040-315, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



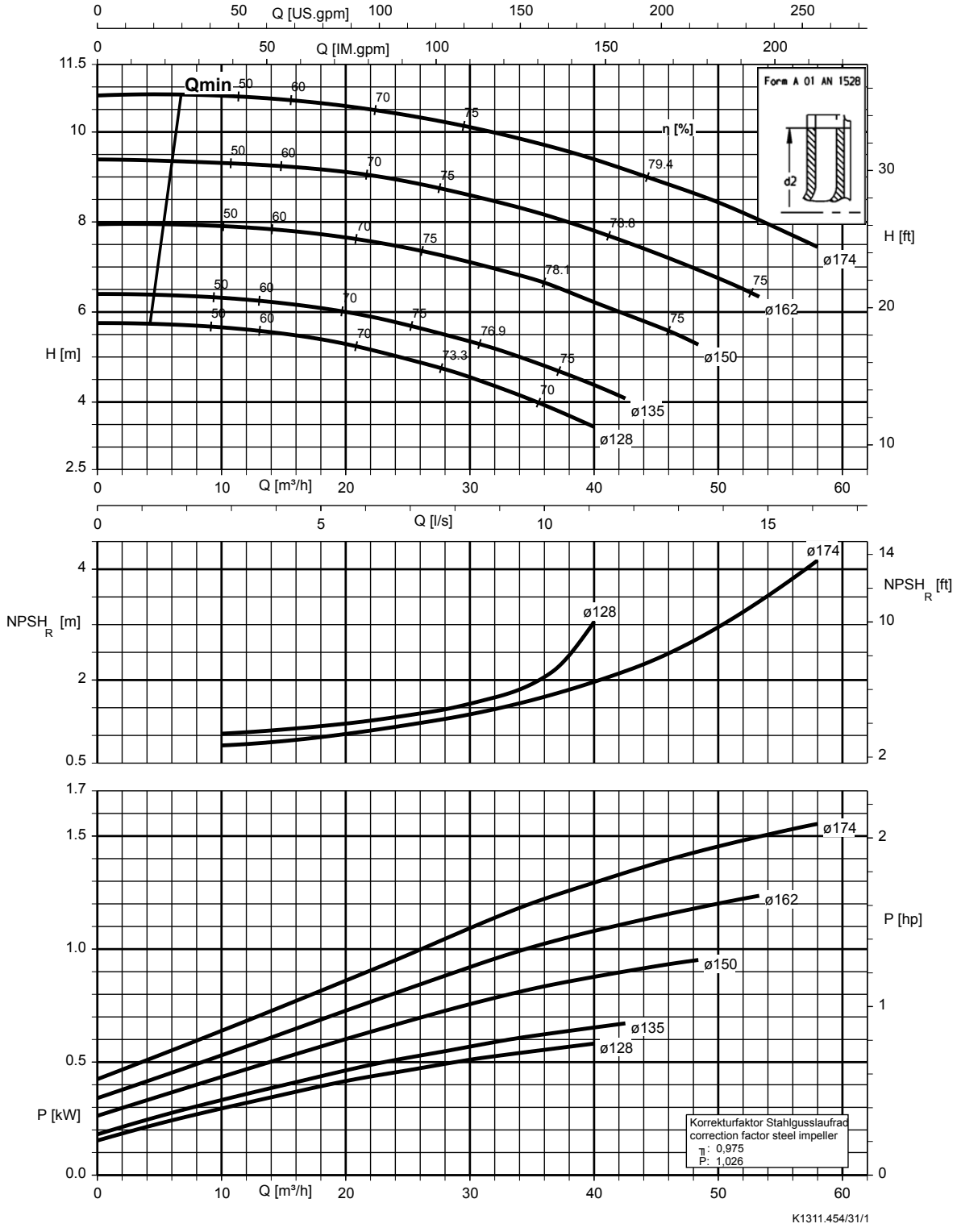
Etanorm 065-050-125, n = 1450 rpm

Etanorm V, Etabloc



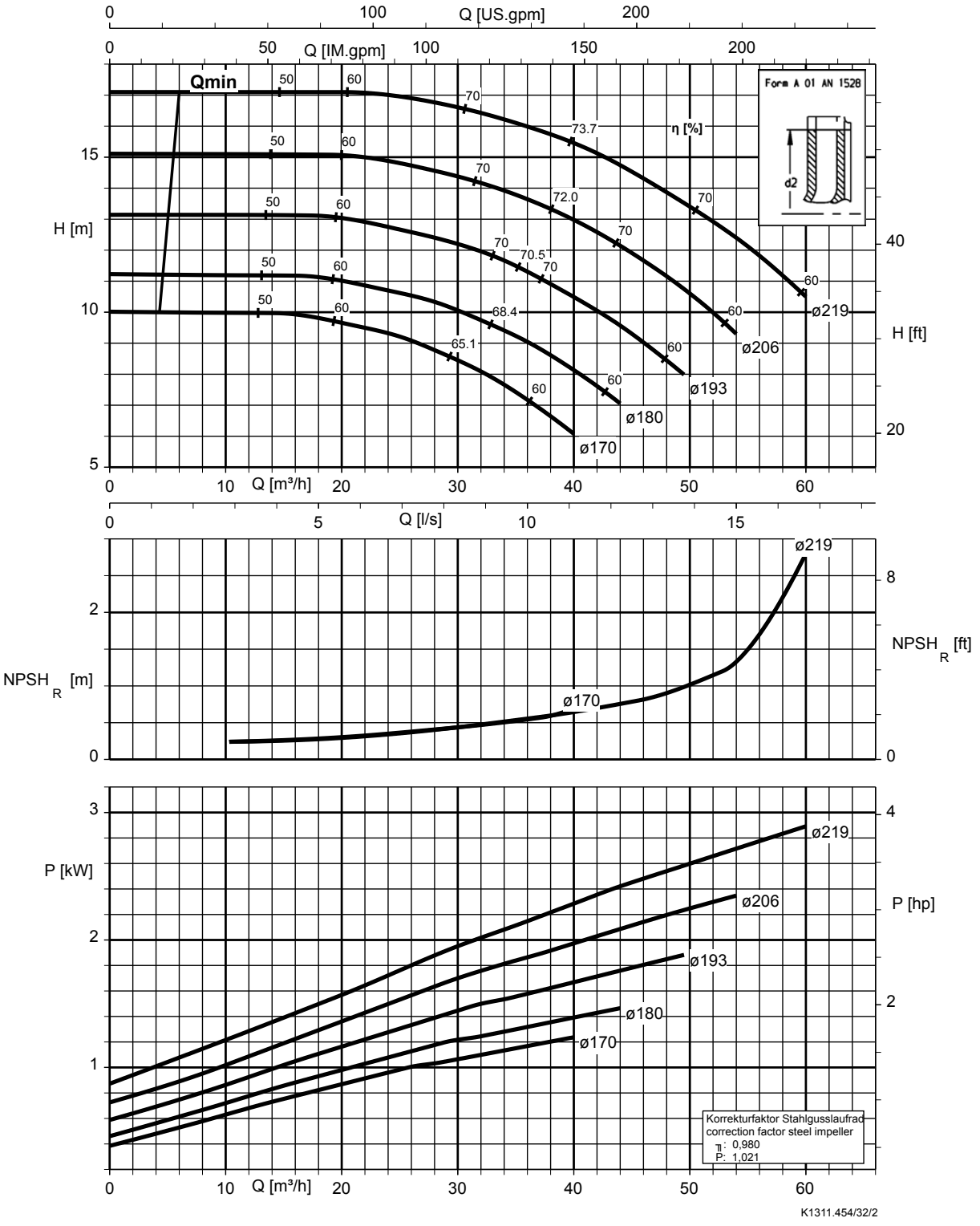
Etanorm 065-050-160, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



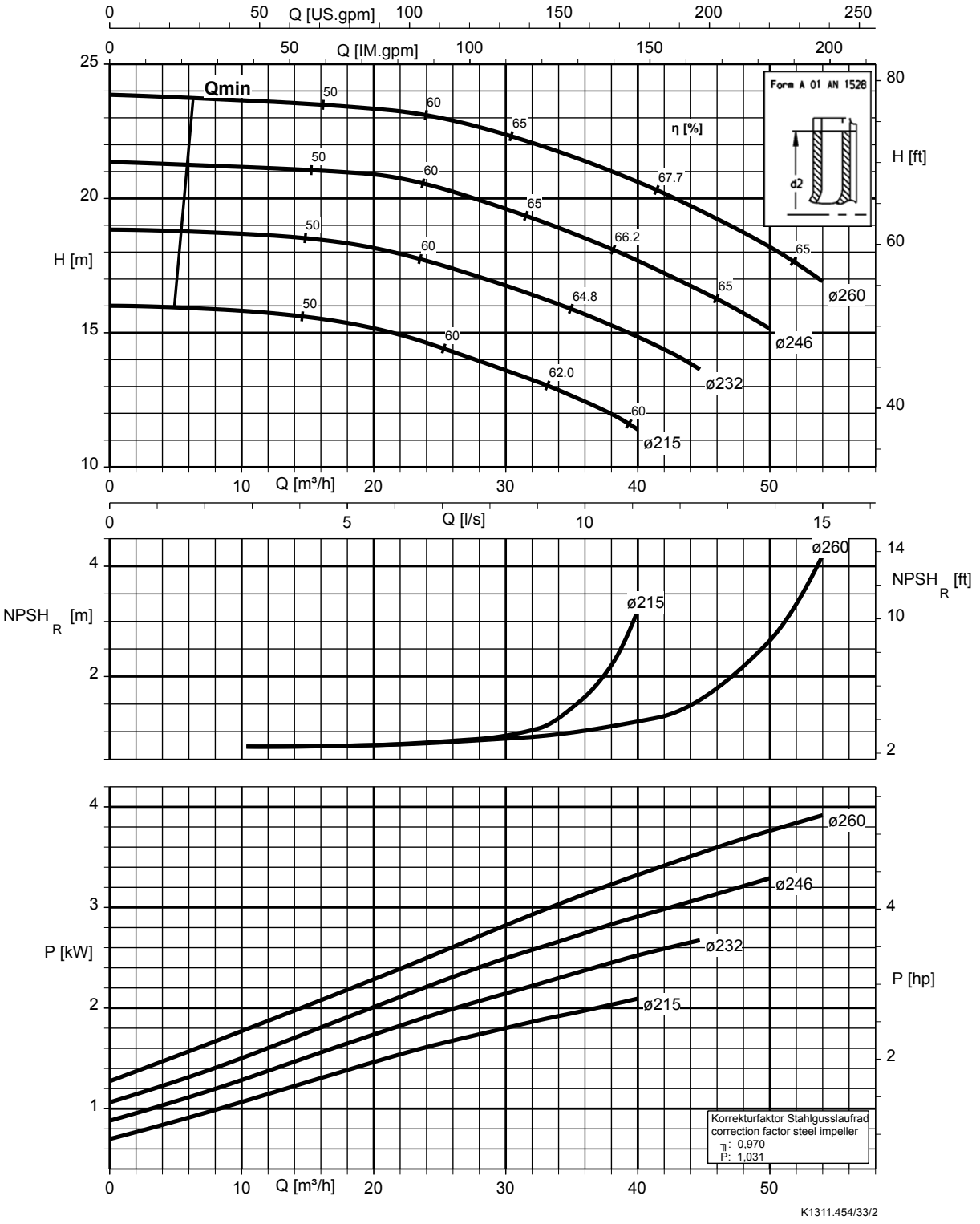
Etanorm 065-050-200, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



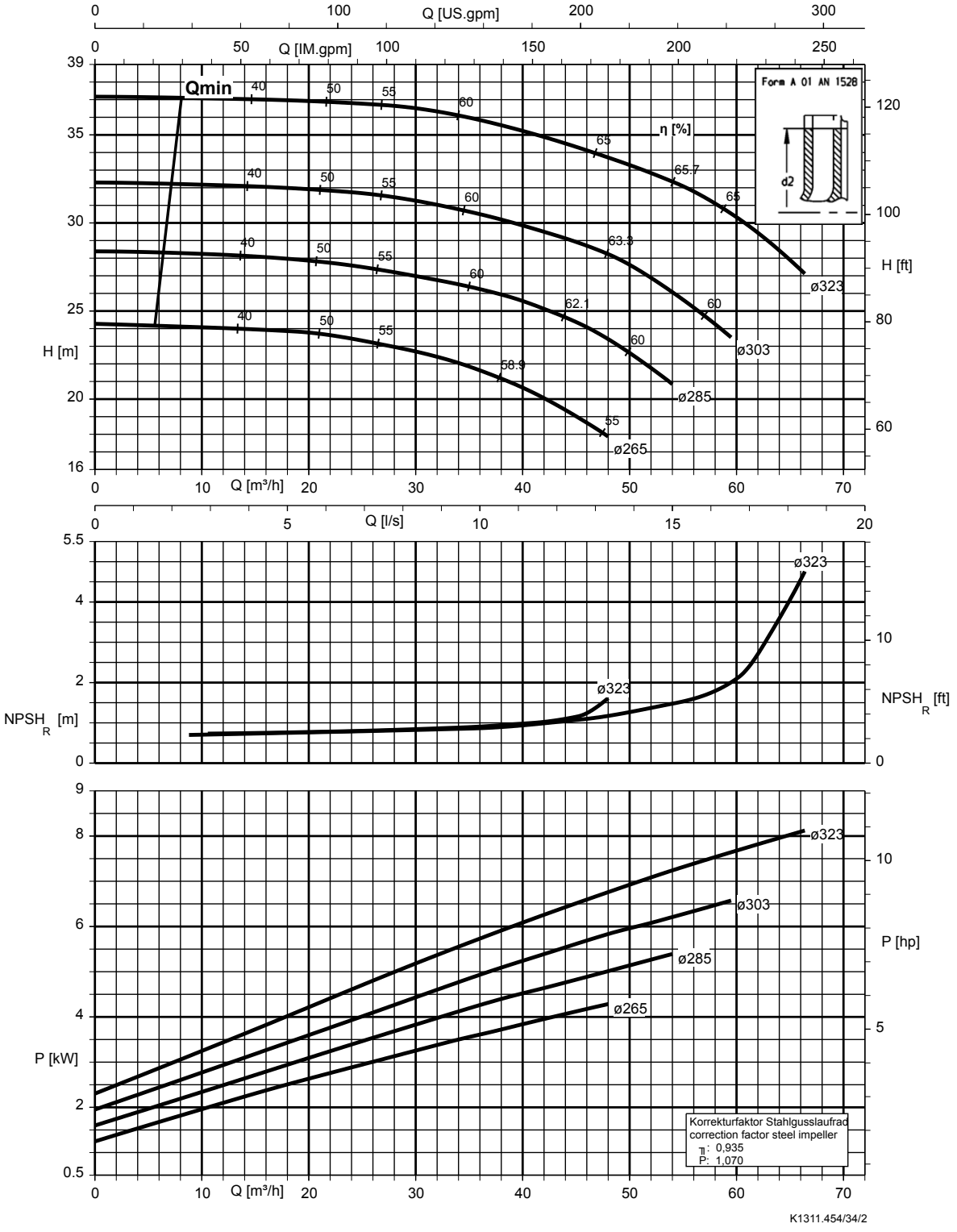
Etanorm 065-050-250, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



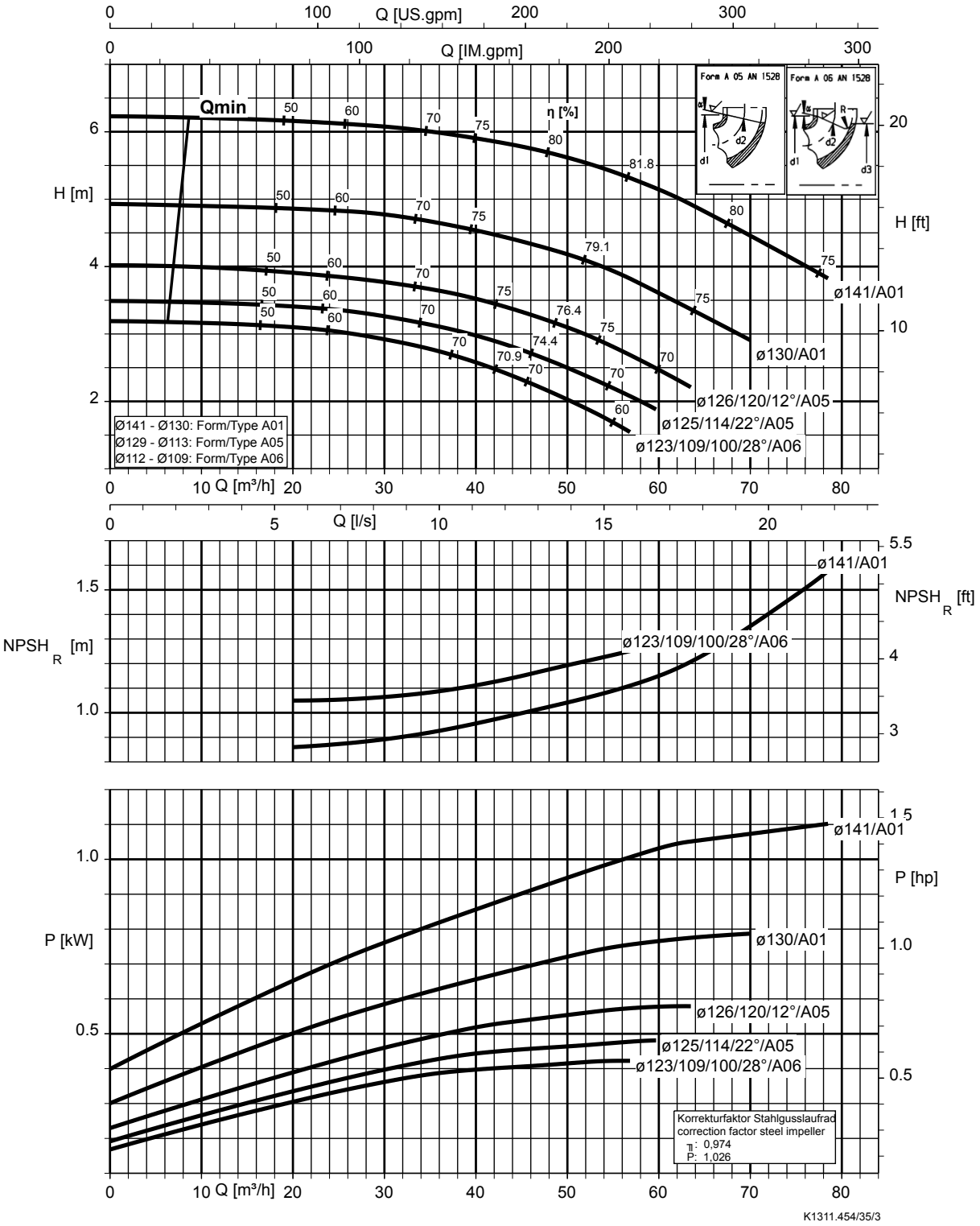
Etanorm 065-050-315, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



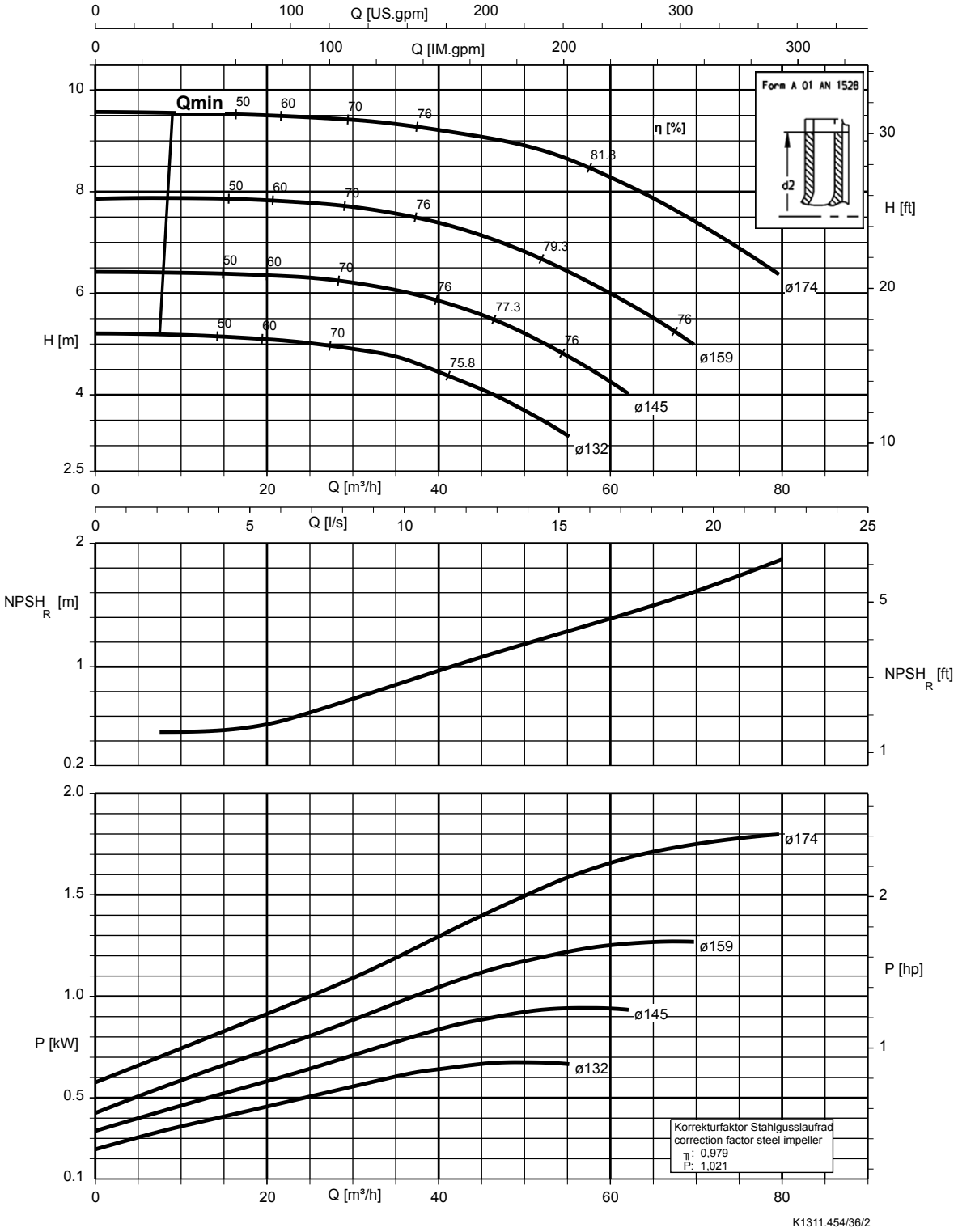
Etanorm 080-065-125, n = 1450 rpm

Etanorm V, Etabloc



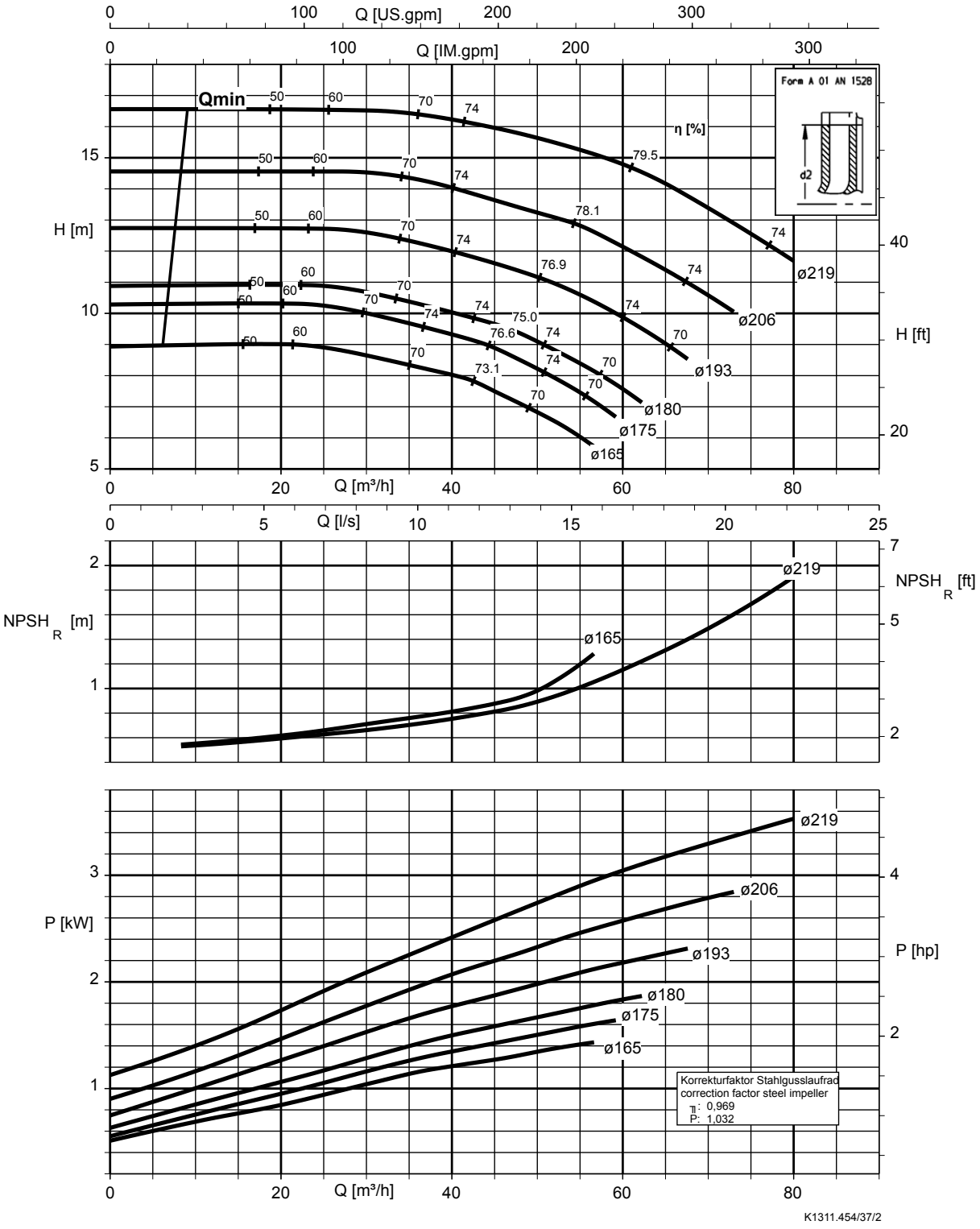
Etanorm 080-065-160, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



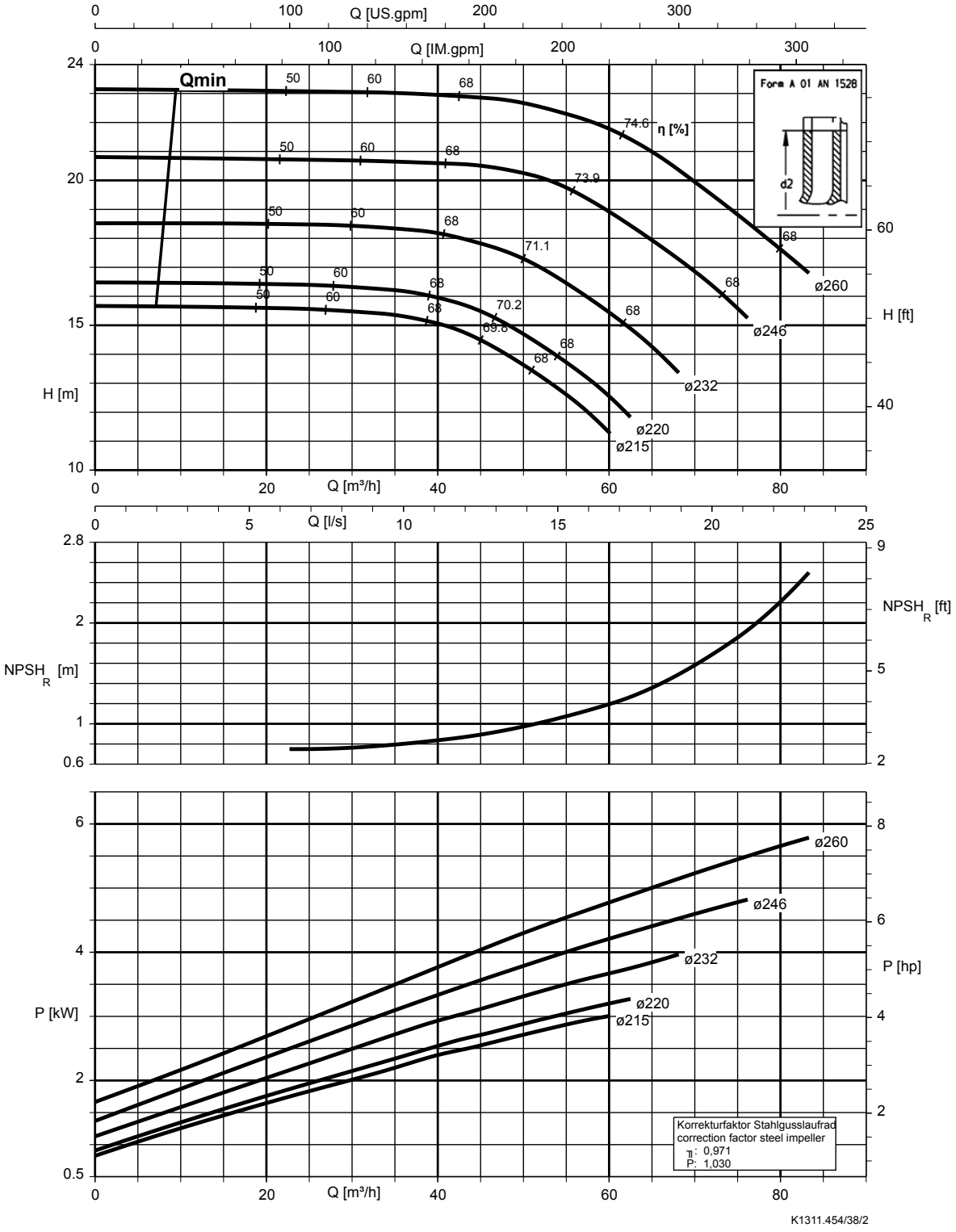
Etanorm 080-065-200, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



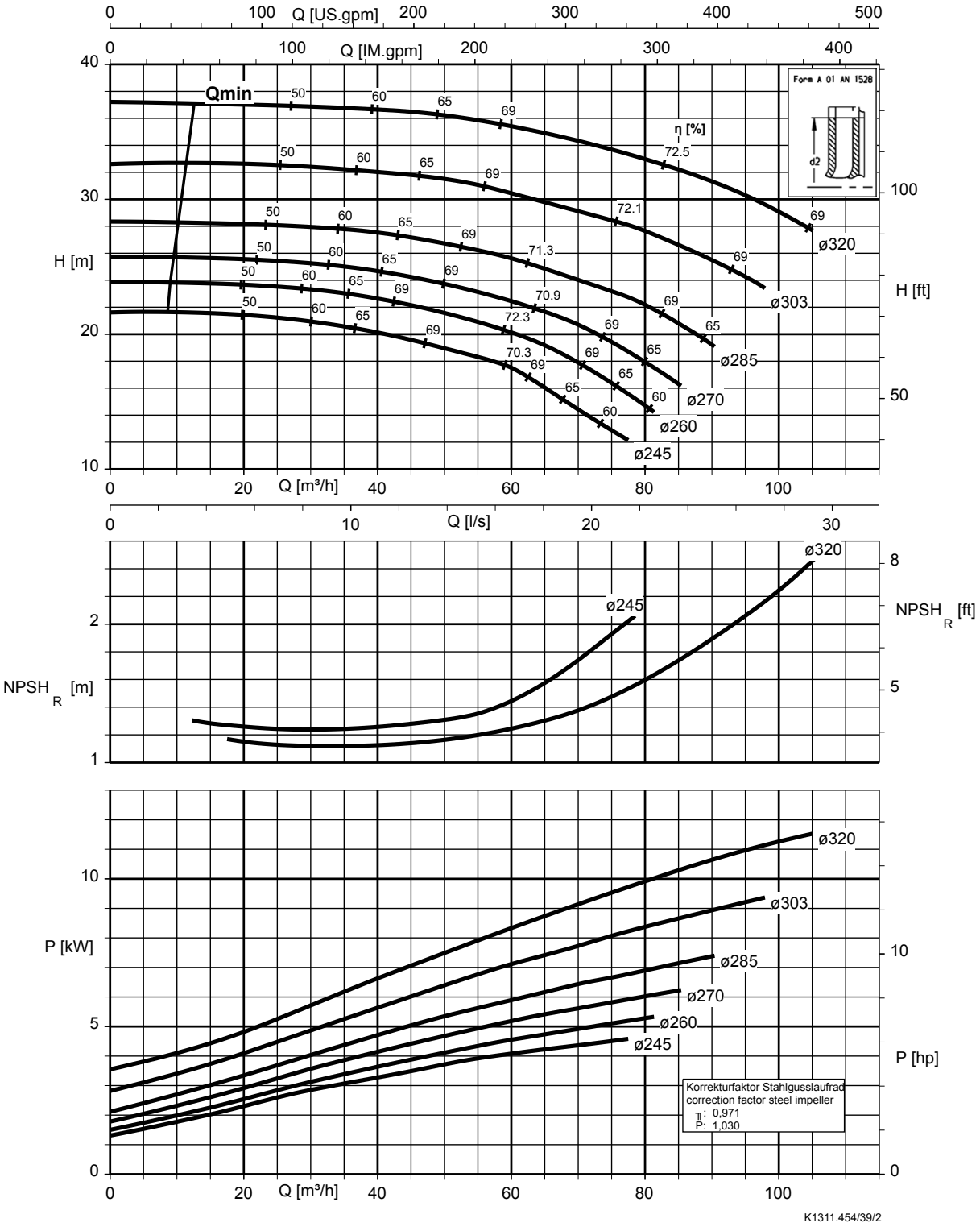
Etanorm 080-065-250, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



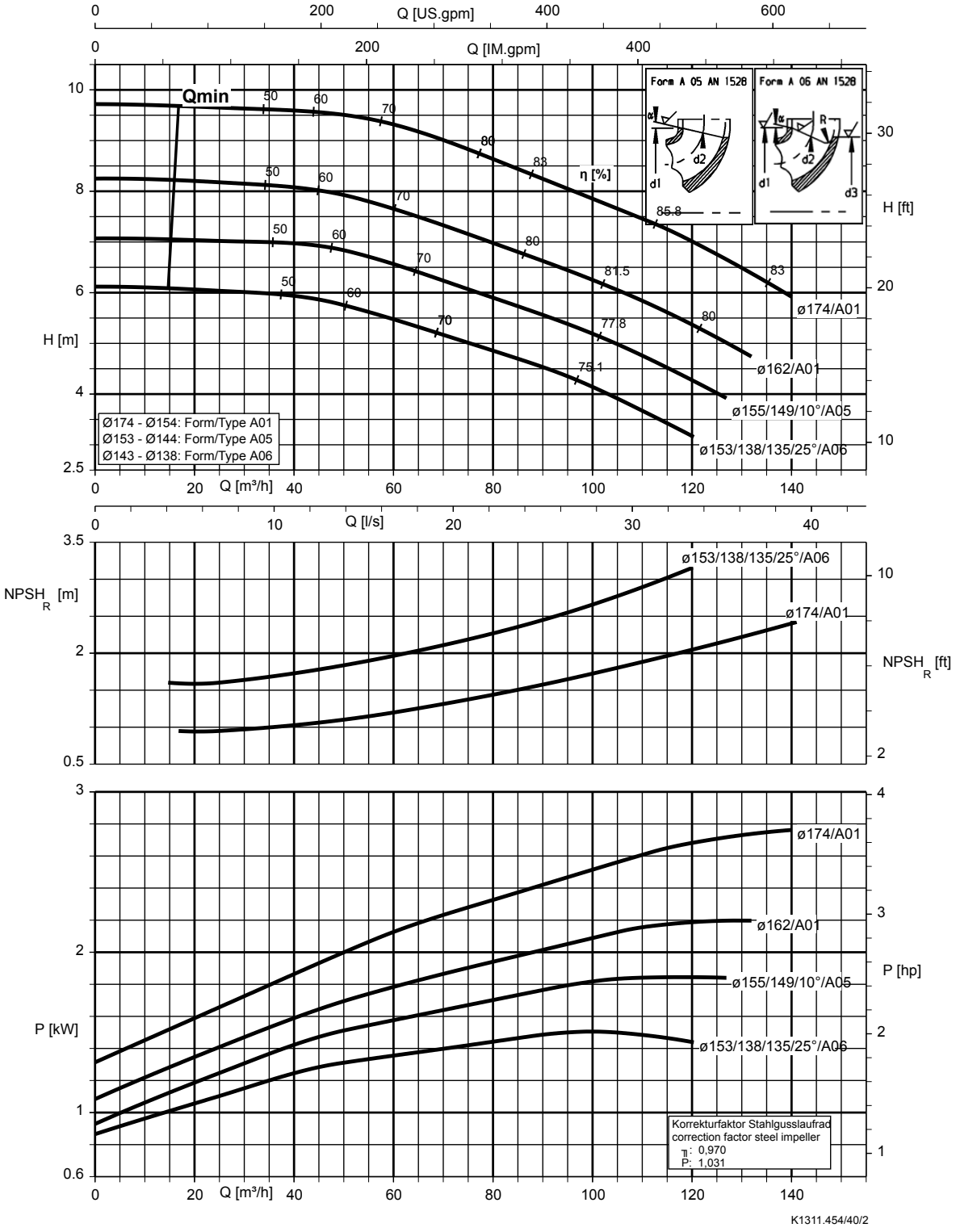
Etanorm 080-065-315, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



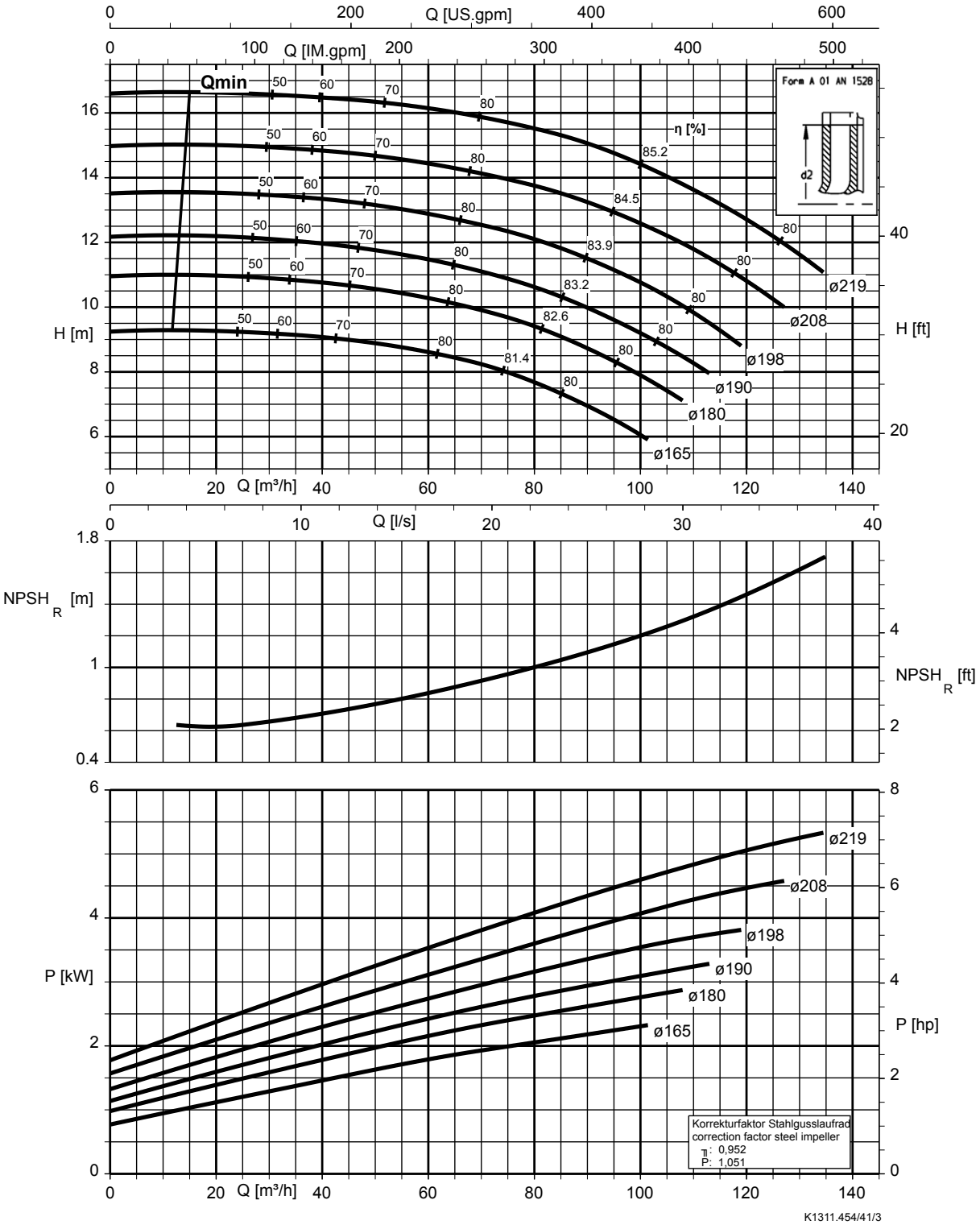
Etanorm 100-080-160, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc, Etabloc SYT



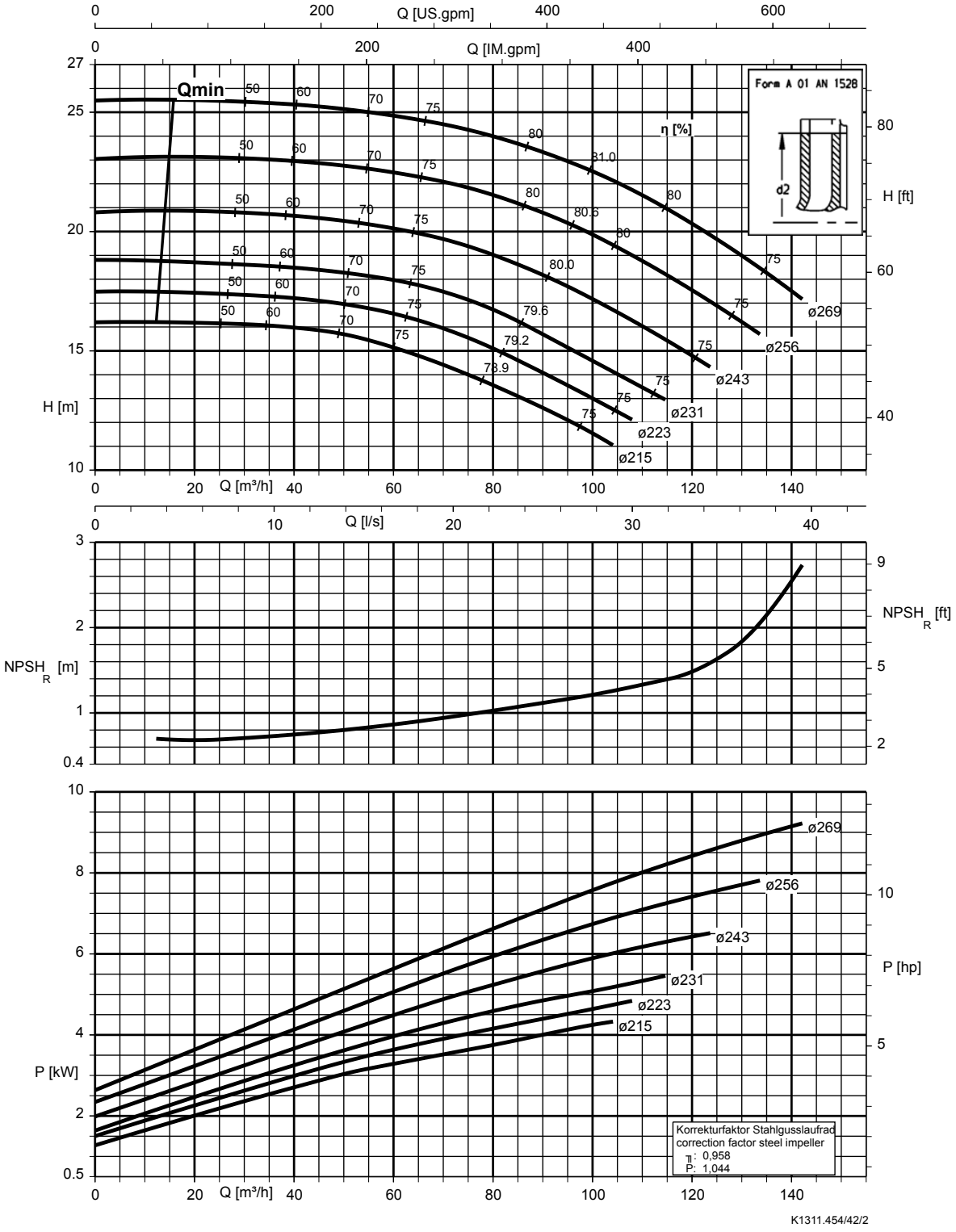
Etanorm 100-080-200, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



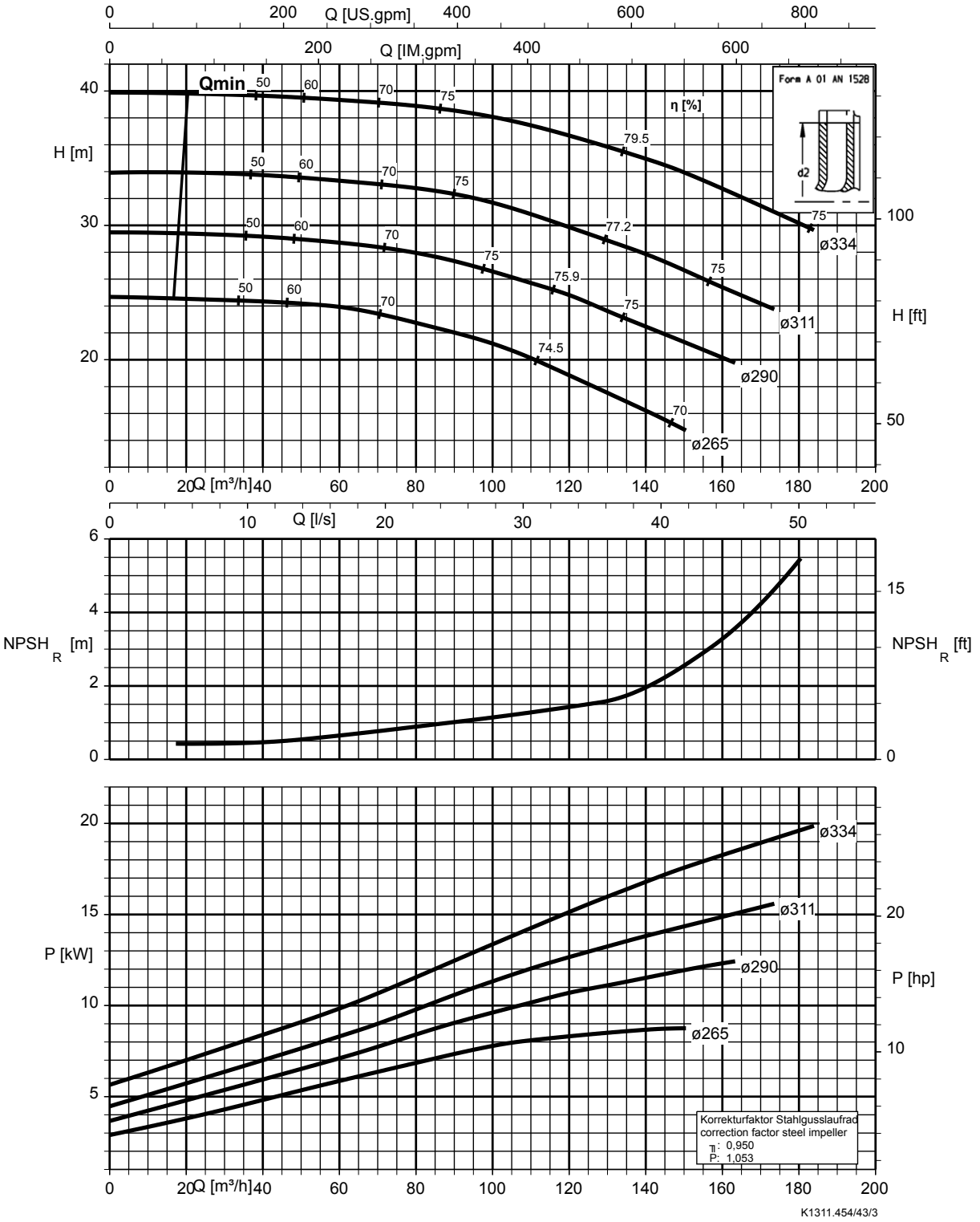
Etanorm 100-080-250, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



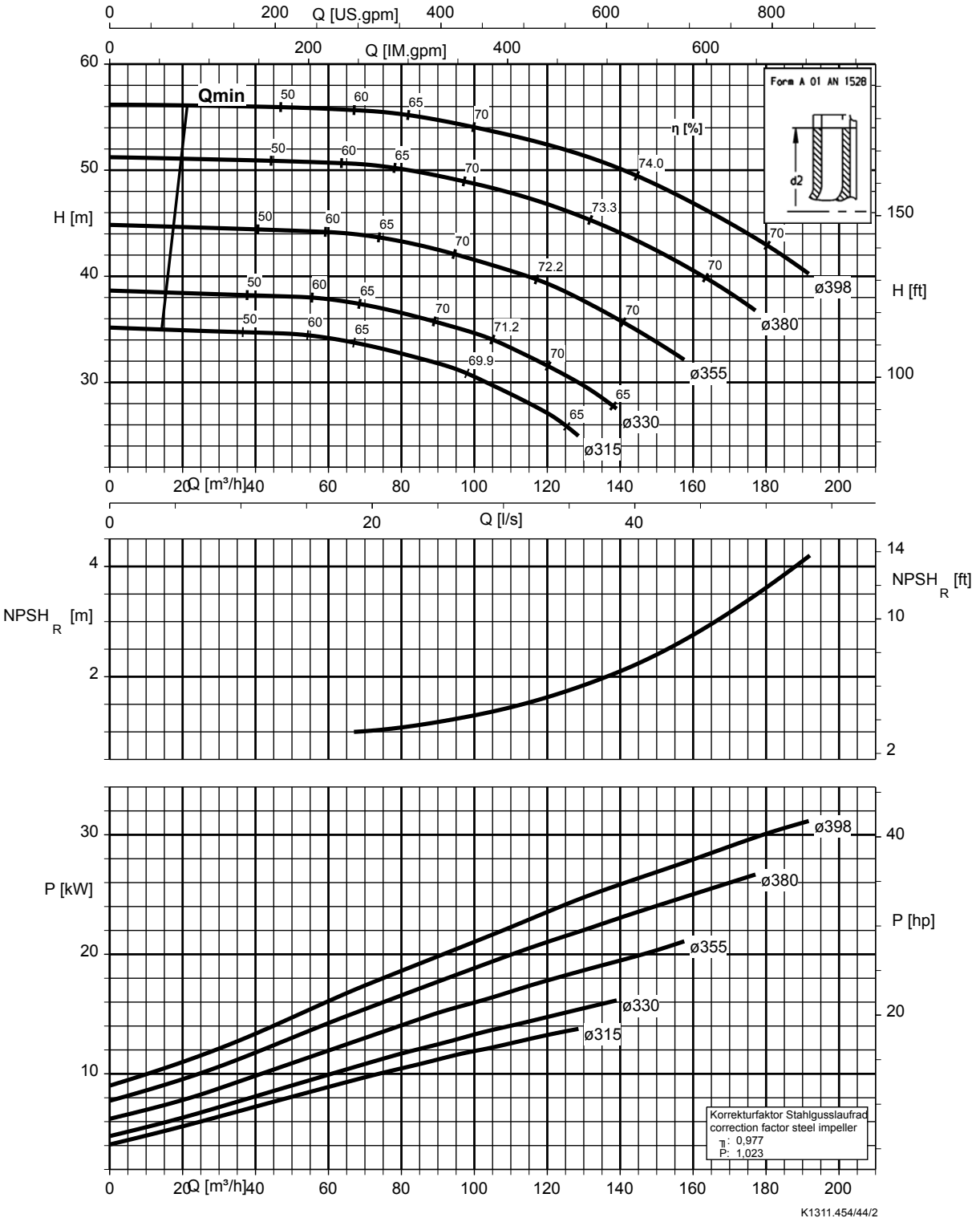
Etanorm 100-080-315, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



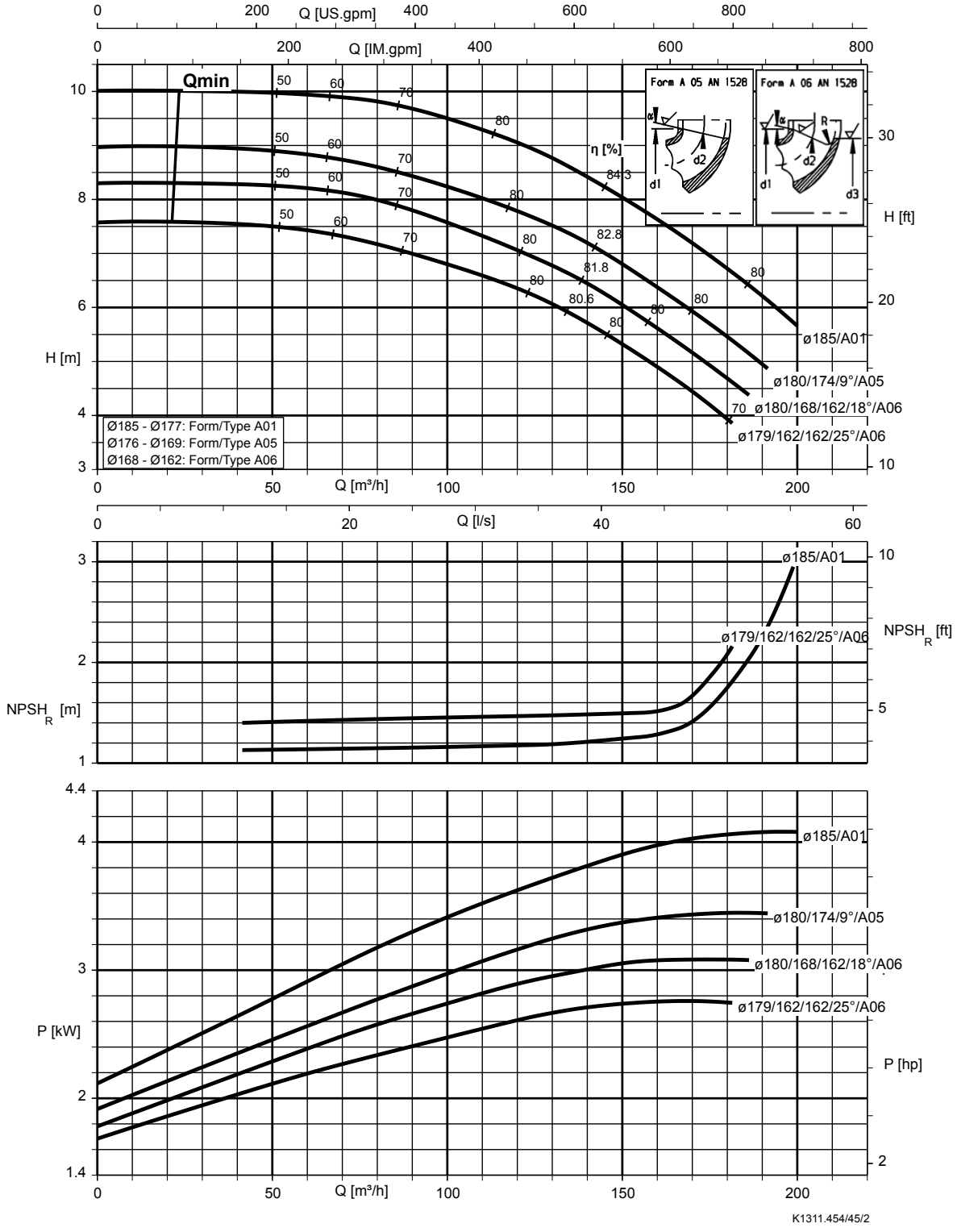
Etanorm 100-080-400, n = 1450 rpm

Etanorm V, Etabloc



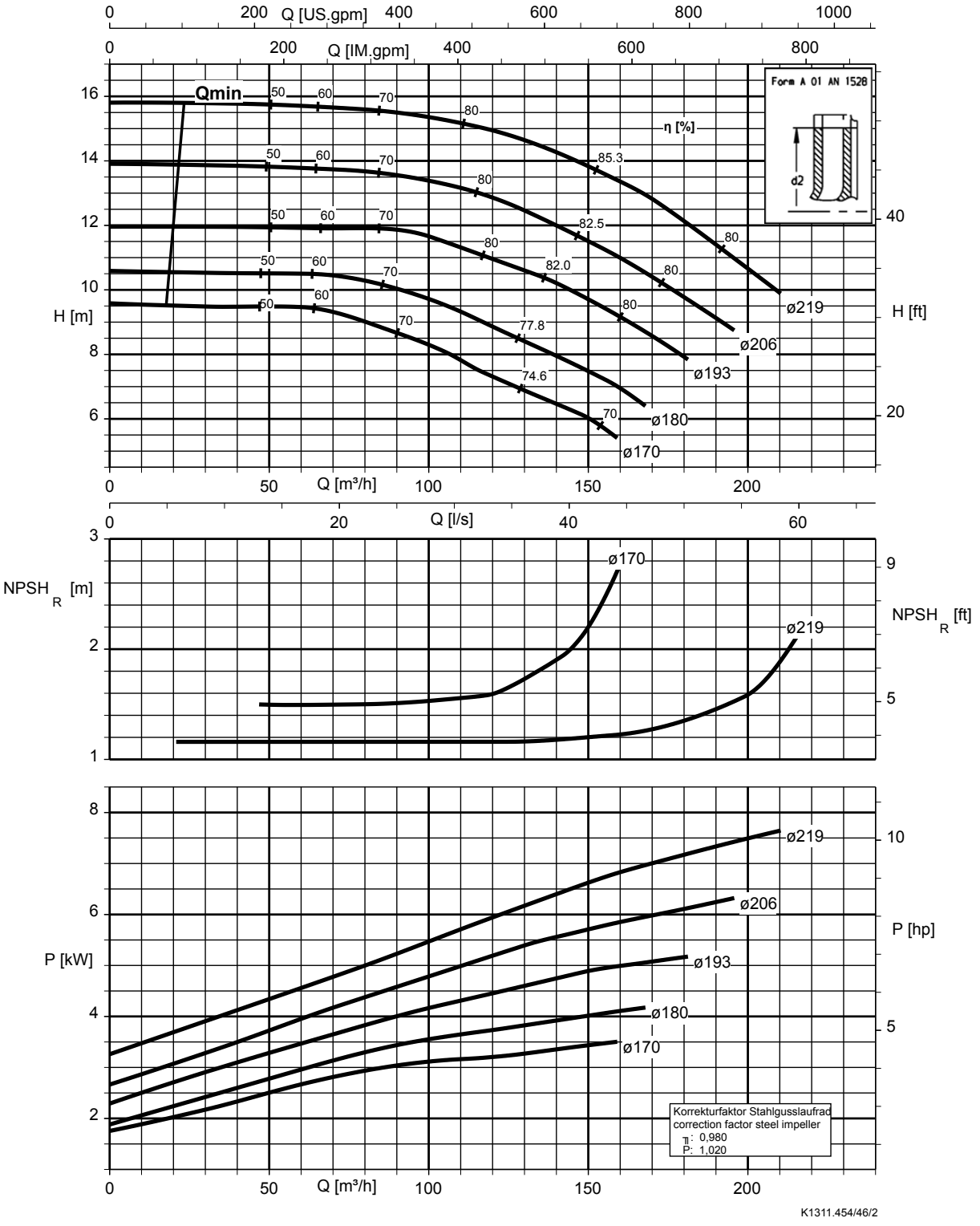
Etanorm 125-100-160, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



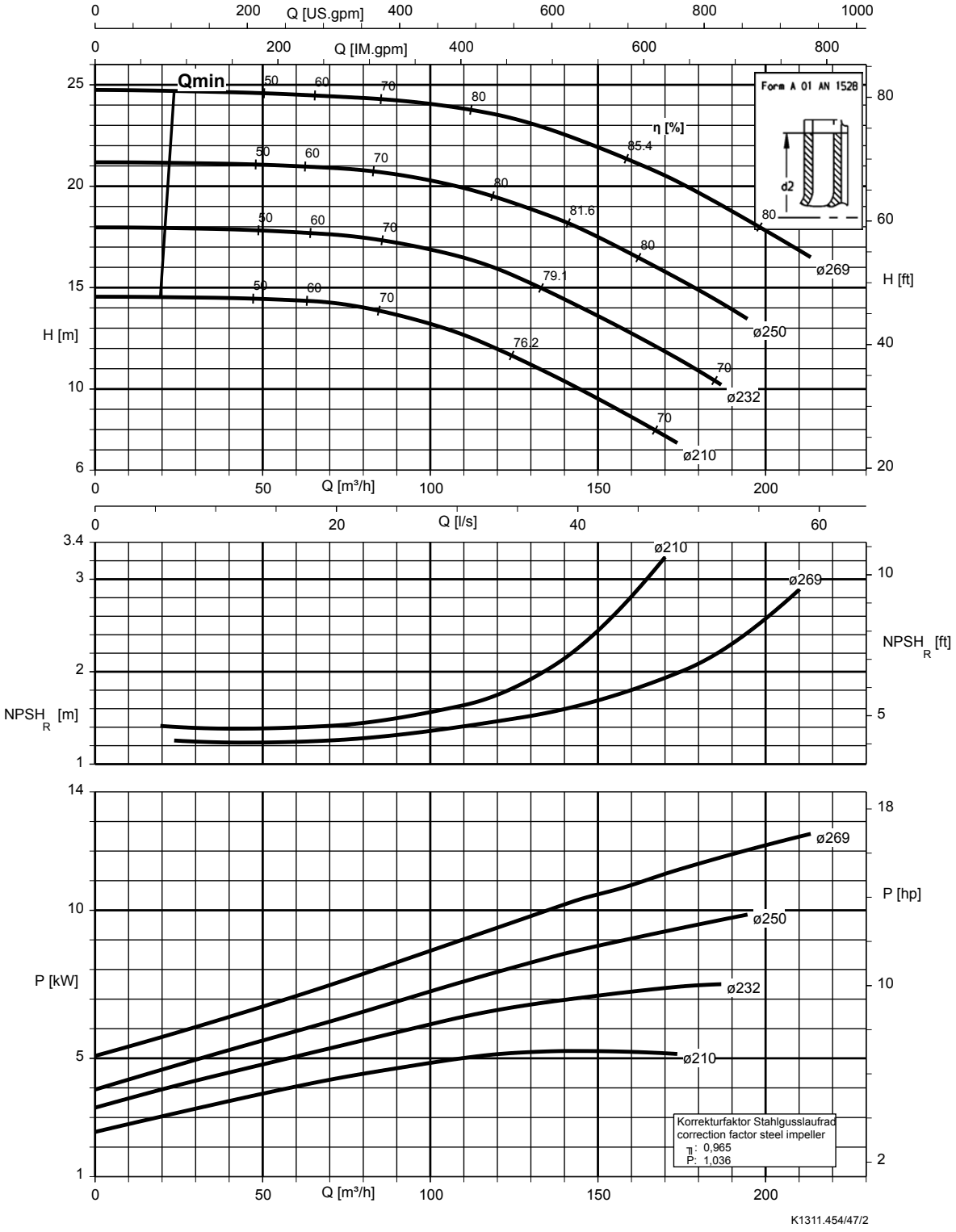
Etanorm 125-100-200, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



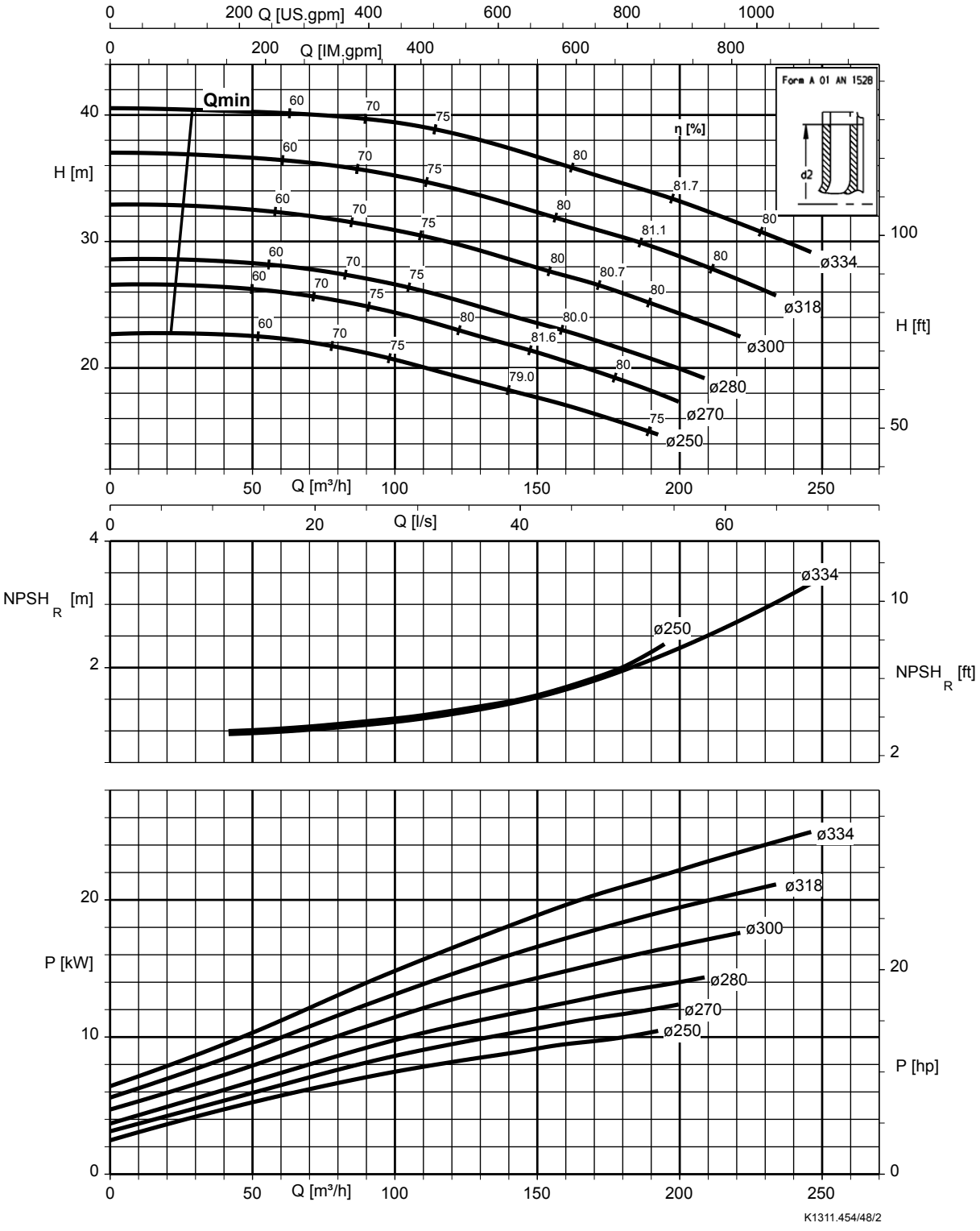
Etanorm 125-100-250, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



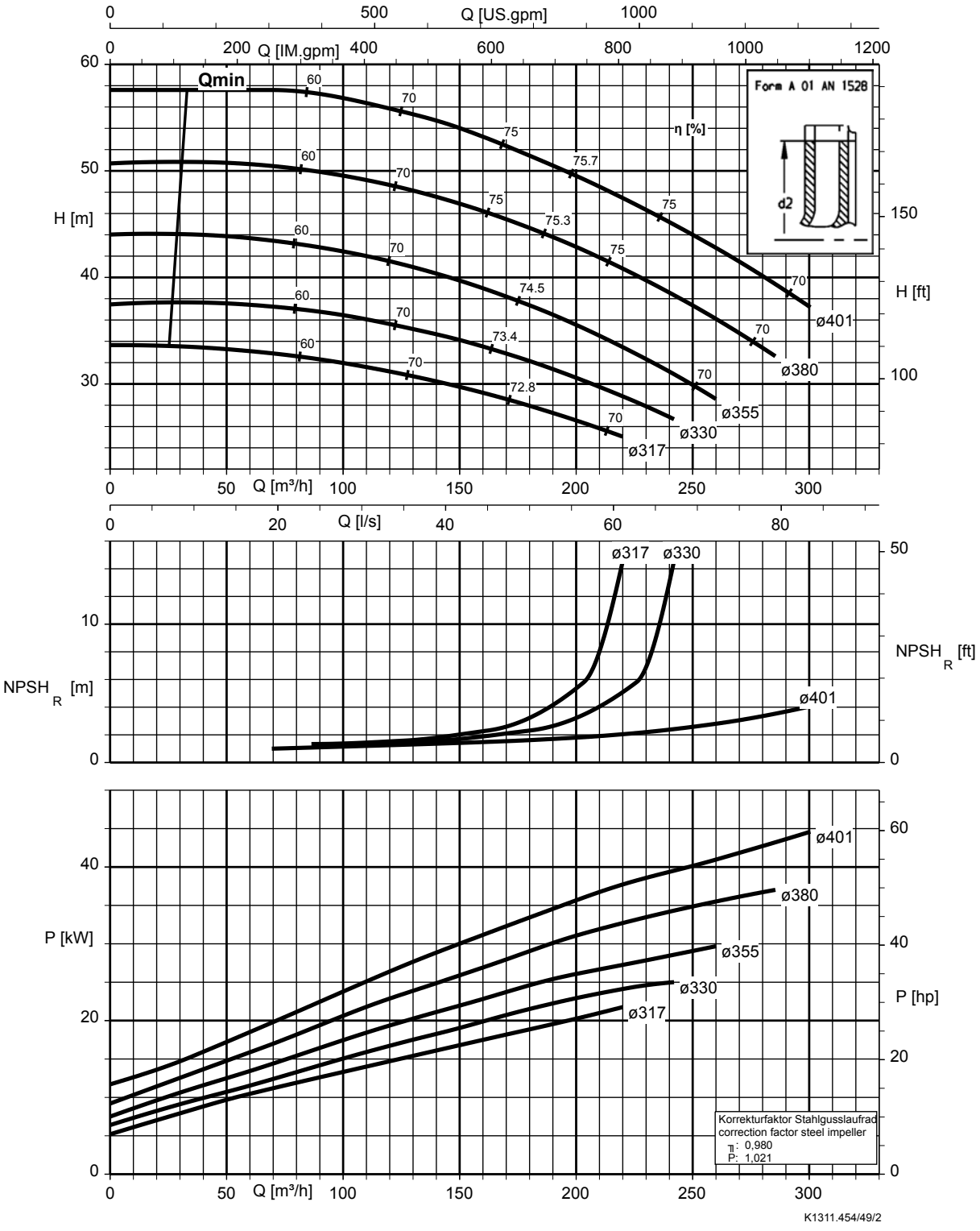
Etanorm 125-100-315, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



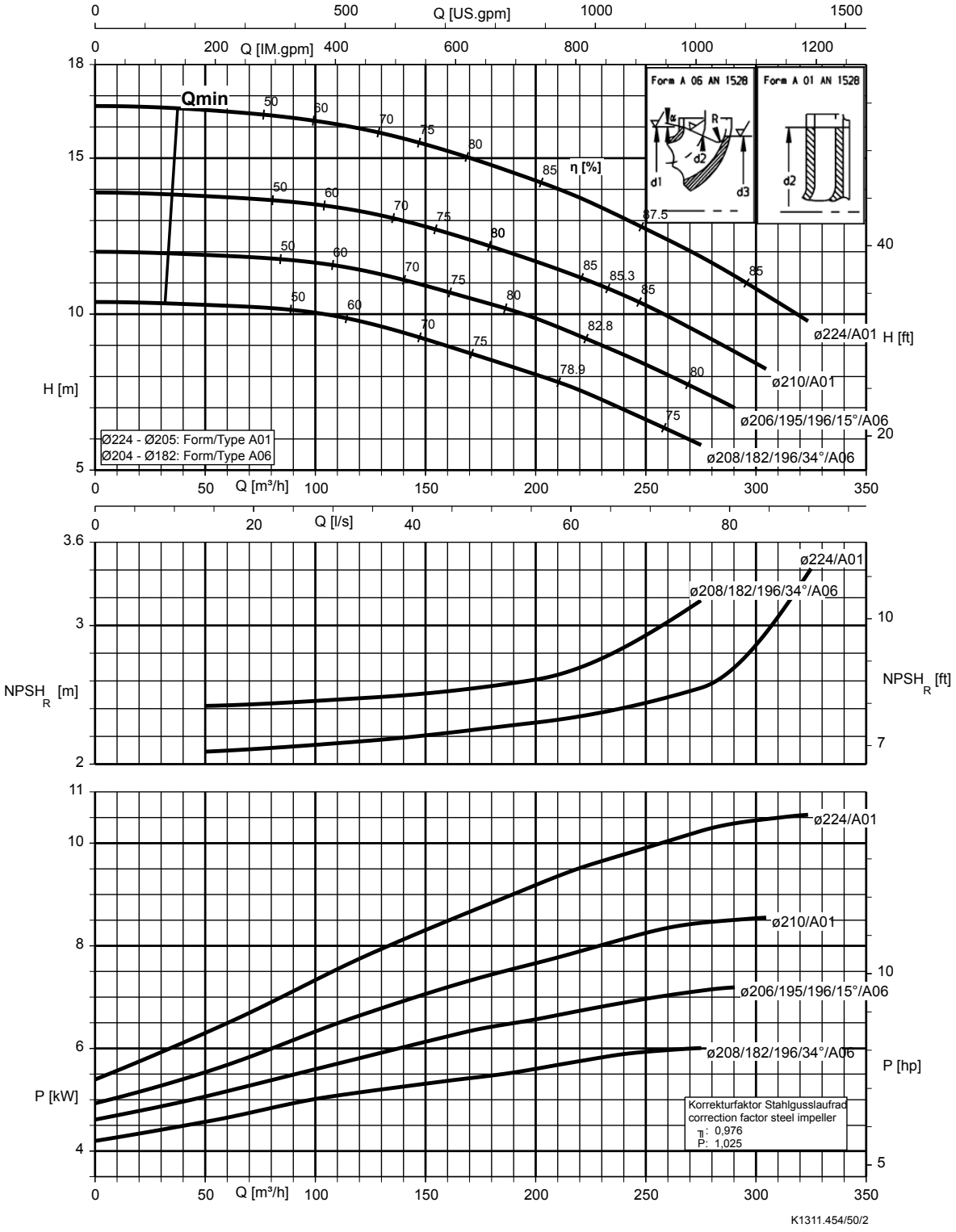
Etanorm 125-100-400, n = 1450 rpm

Etanorm V, Etabloc



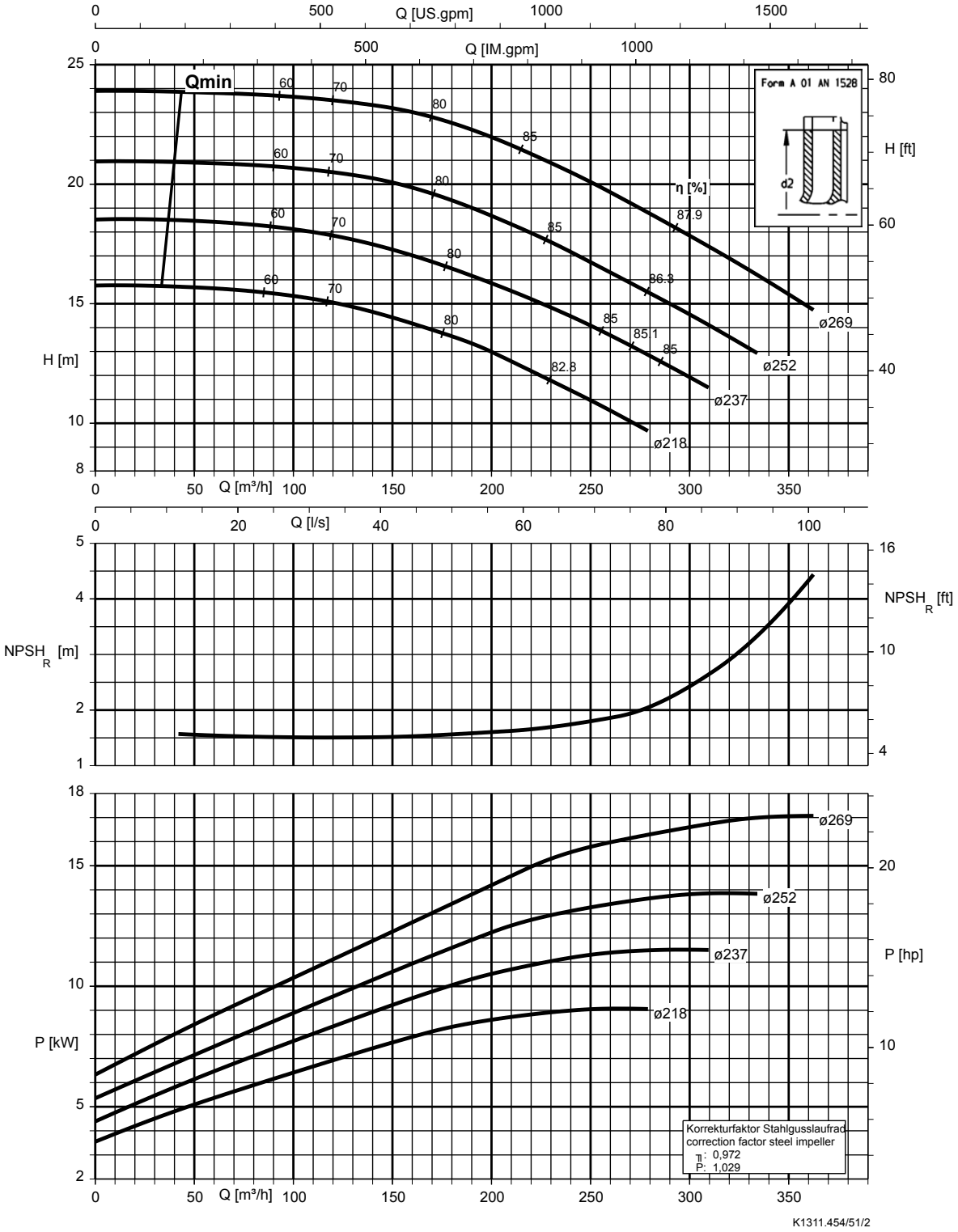
Etanorm 150-125-200, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



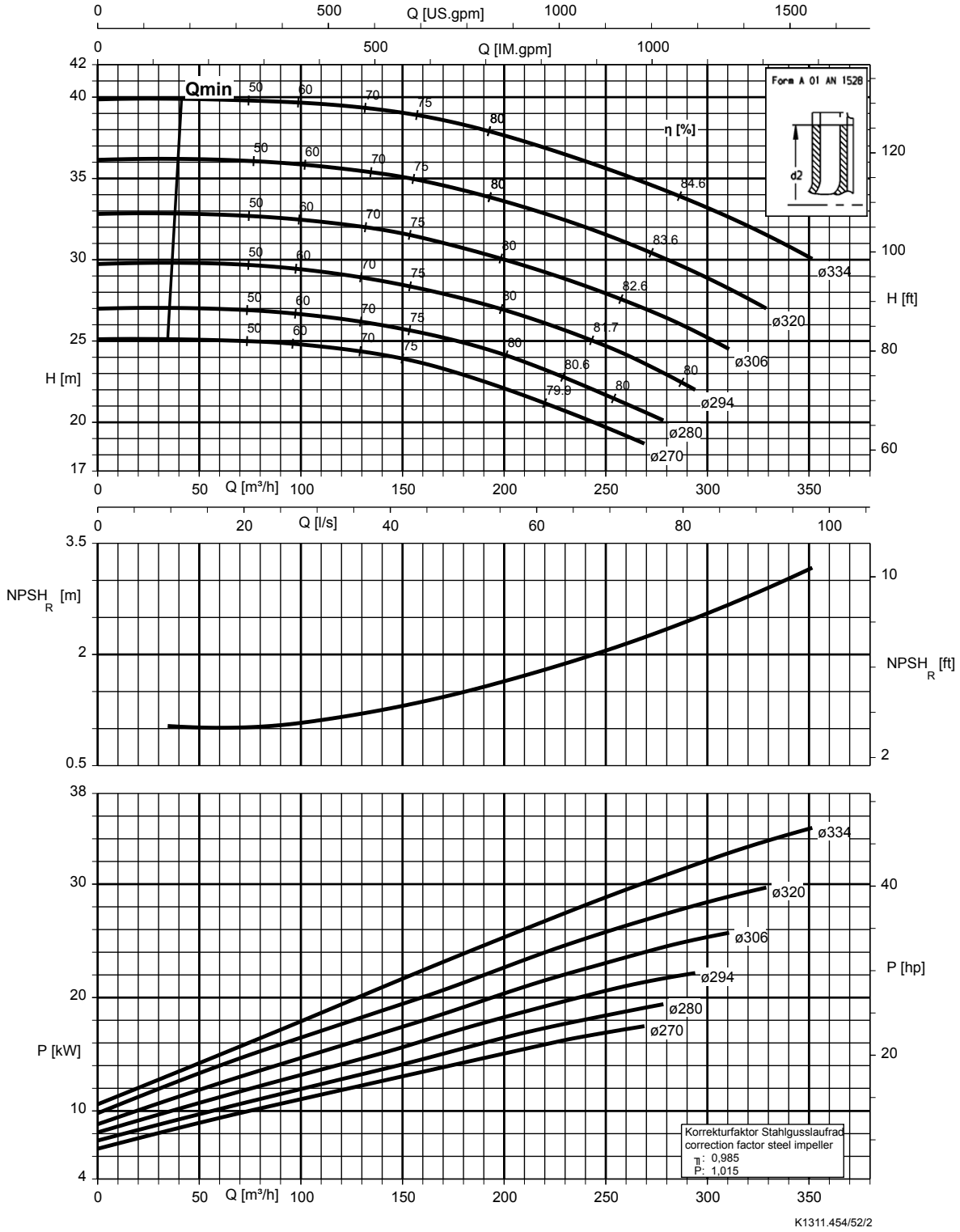
Etanorm 150-125-250, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



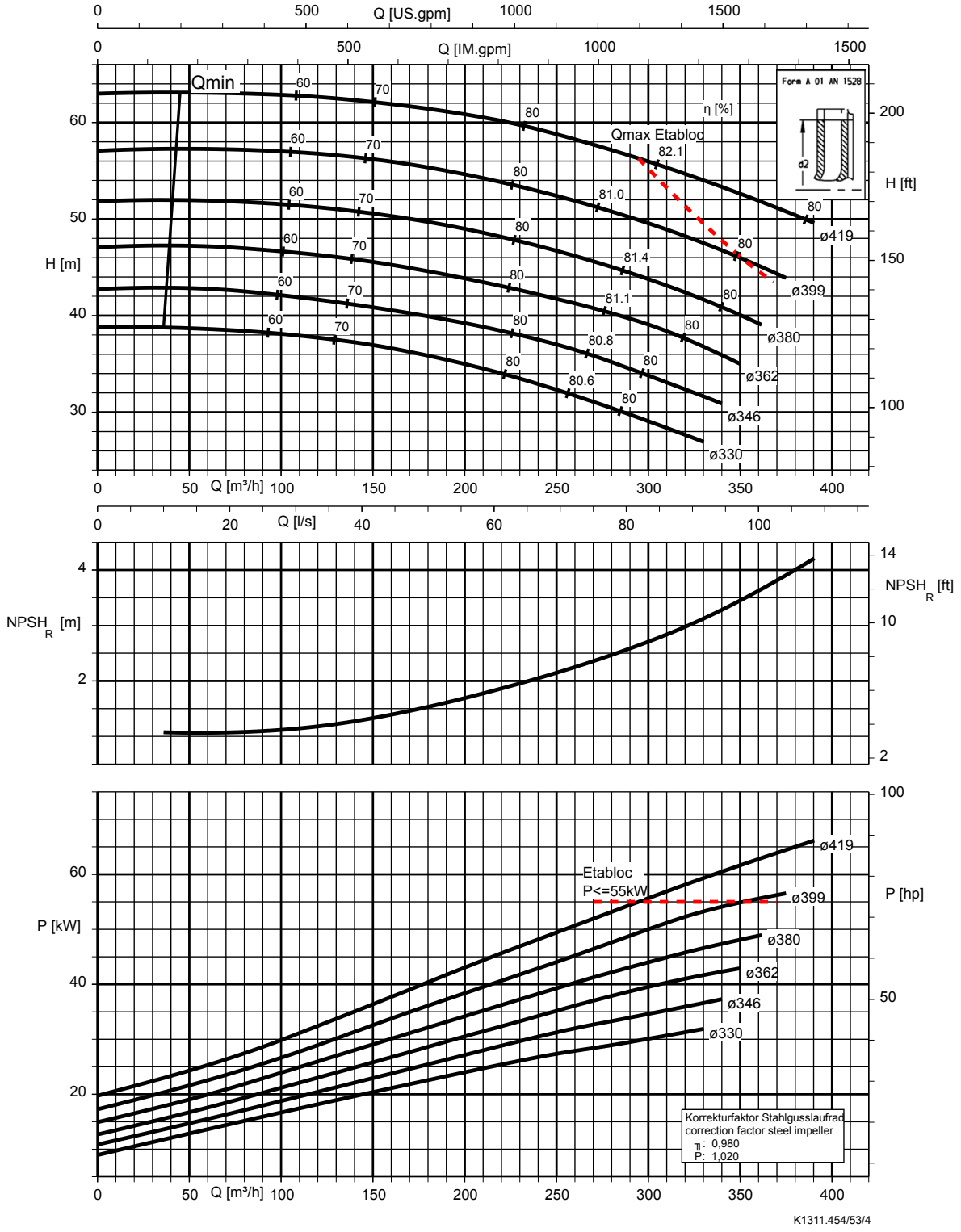
Etanorm 150-125-315, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



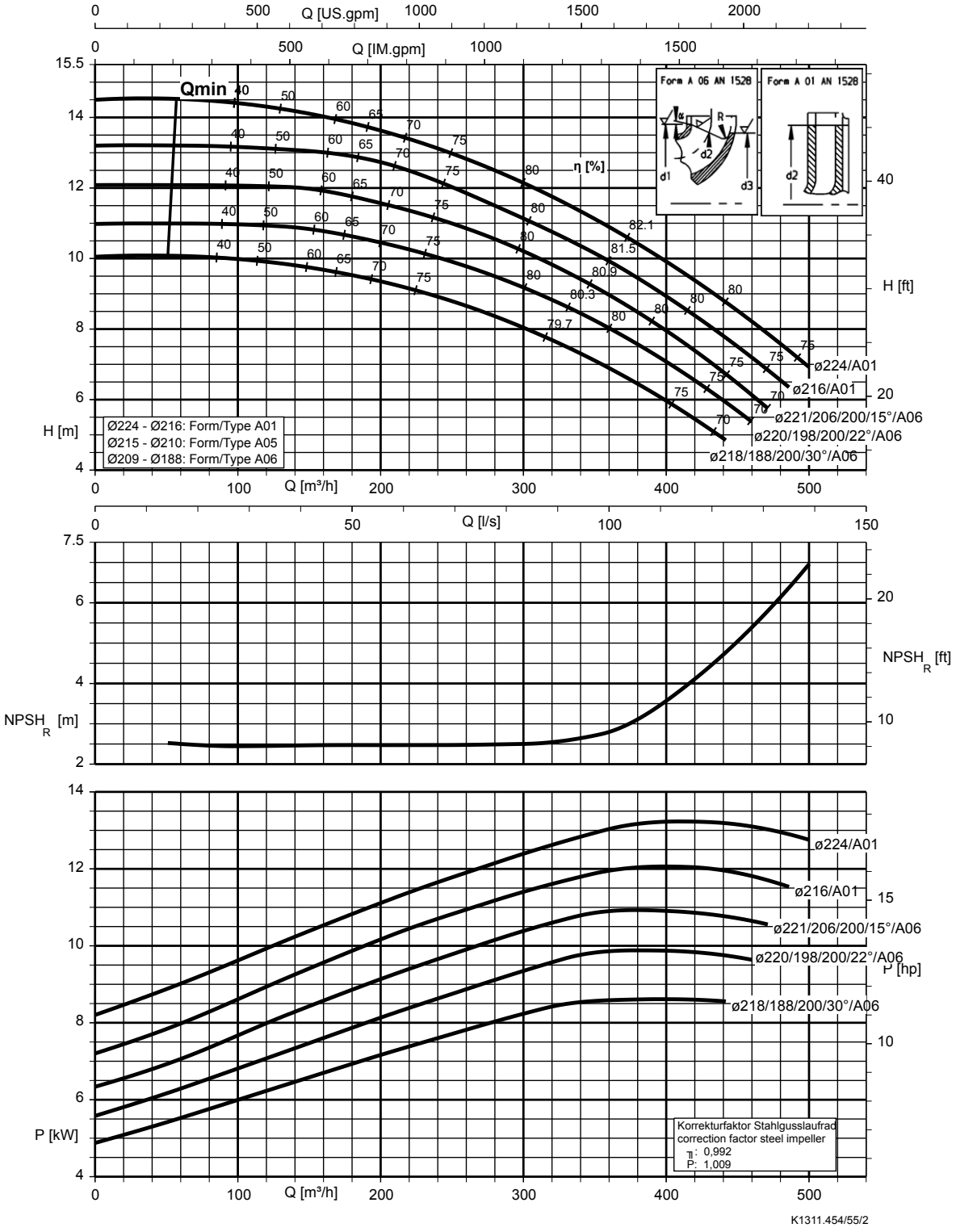
Etanorm 150-125-400, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



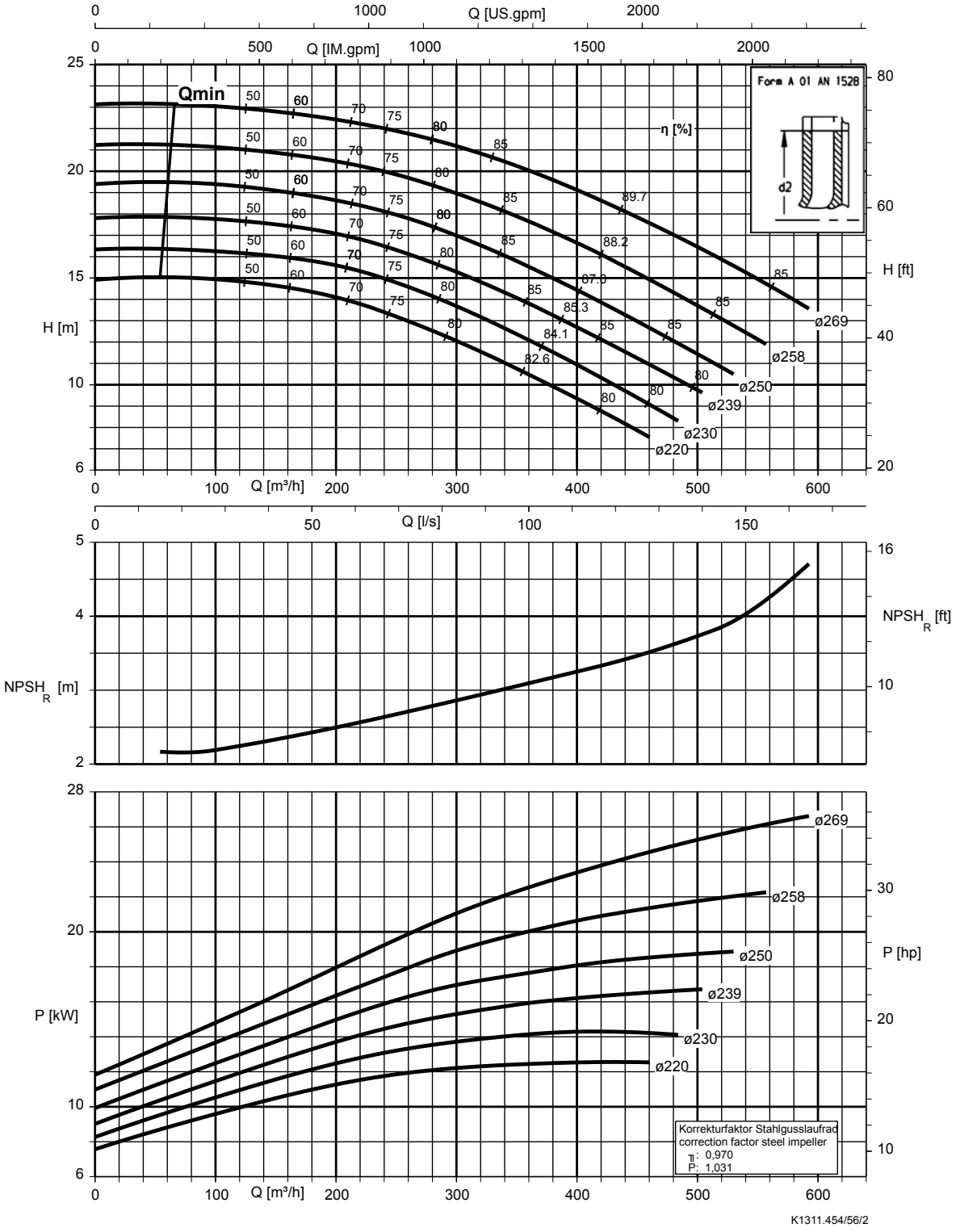
Etanorm 200-150-200, n = 1450 rpm

Etanorm V, Etabloc



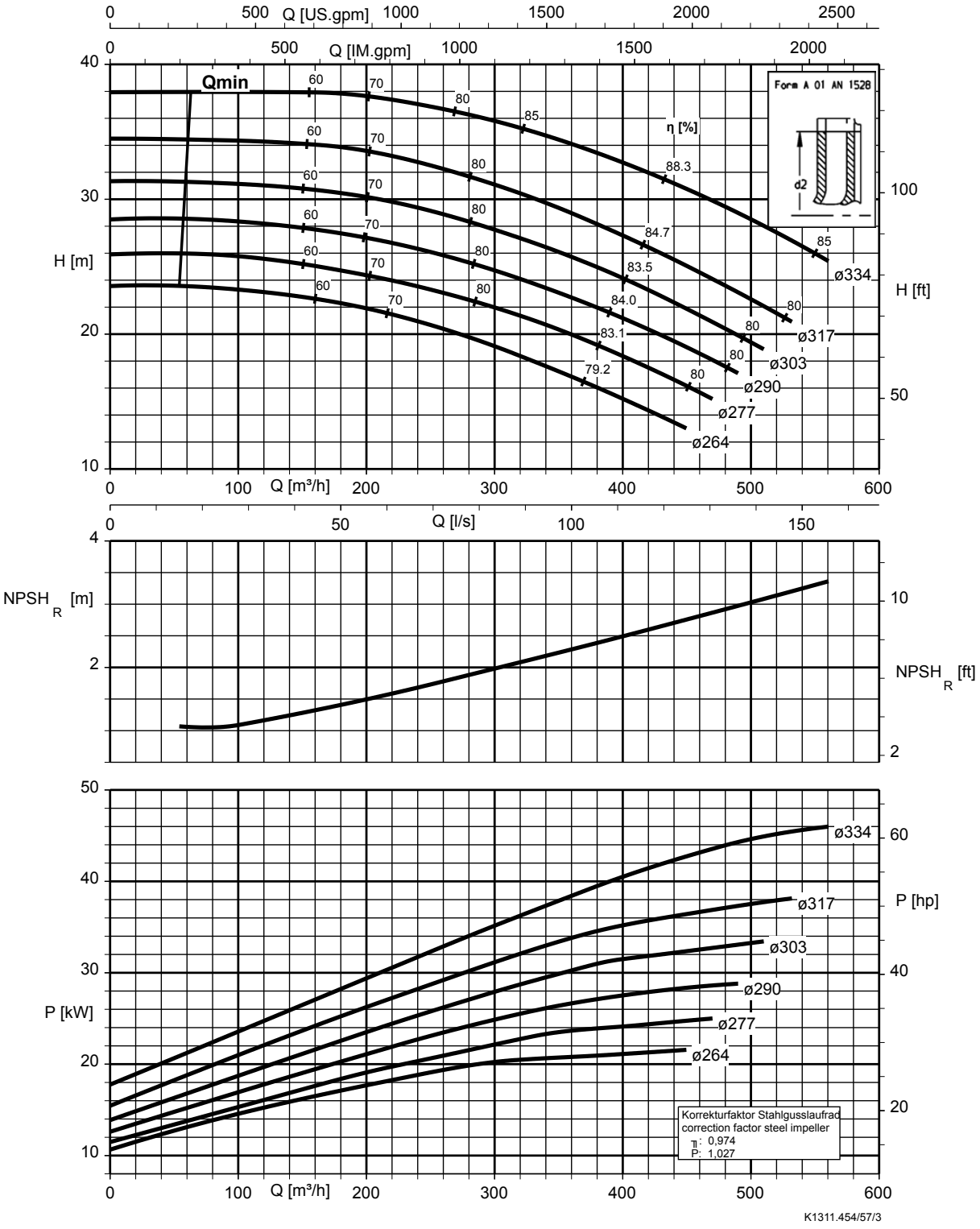
Etanorm 200-150-250, n = 1450 rpm

Etanorm V, Etabloc



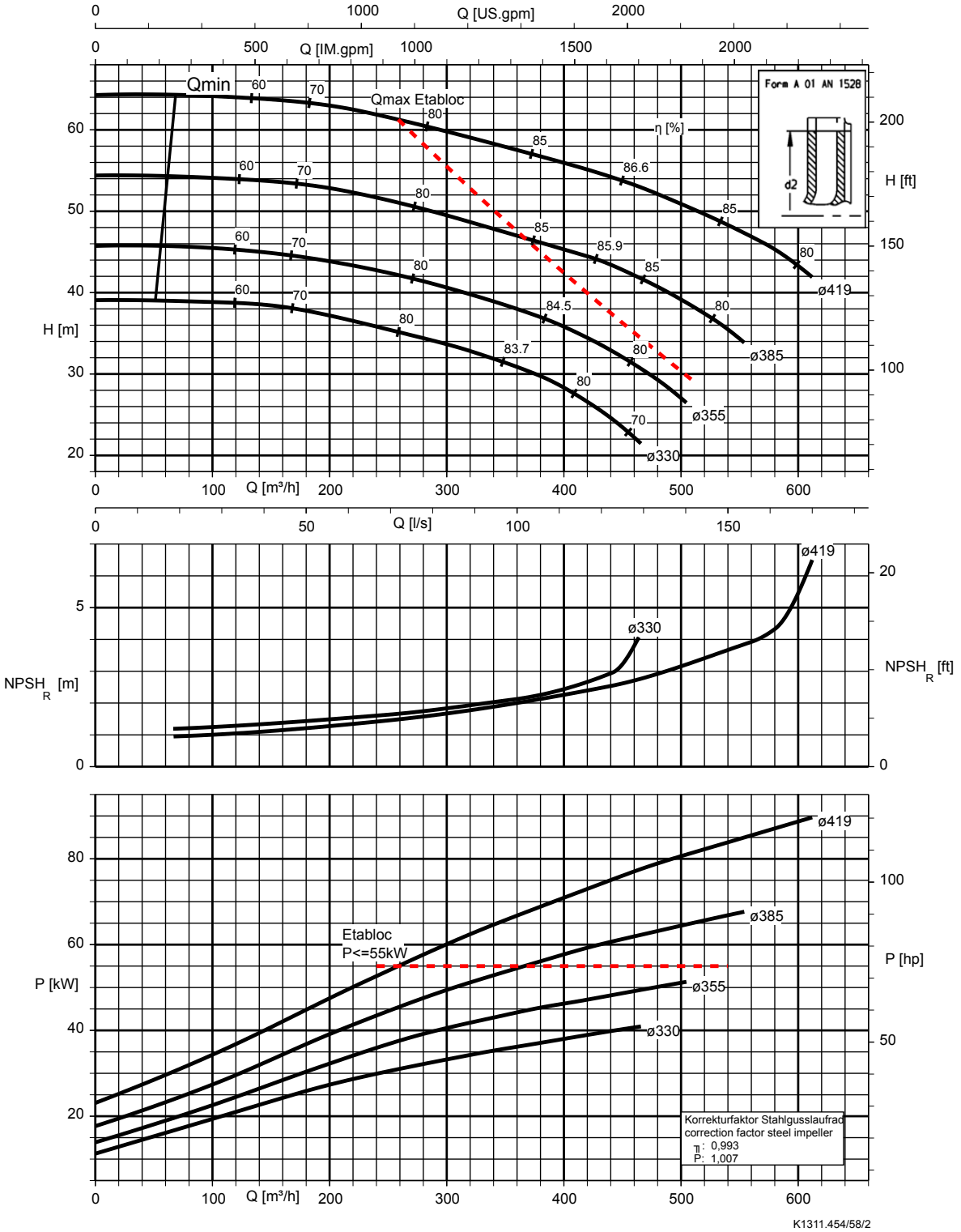
Etanorm 200-150-315, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



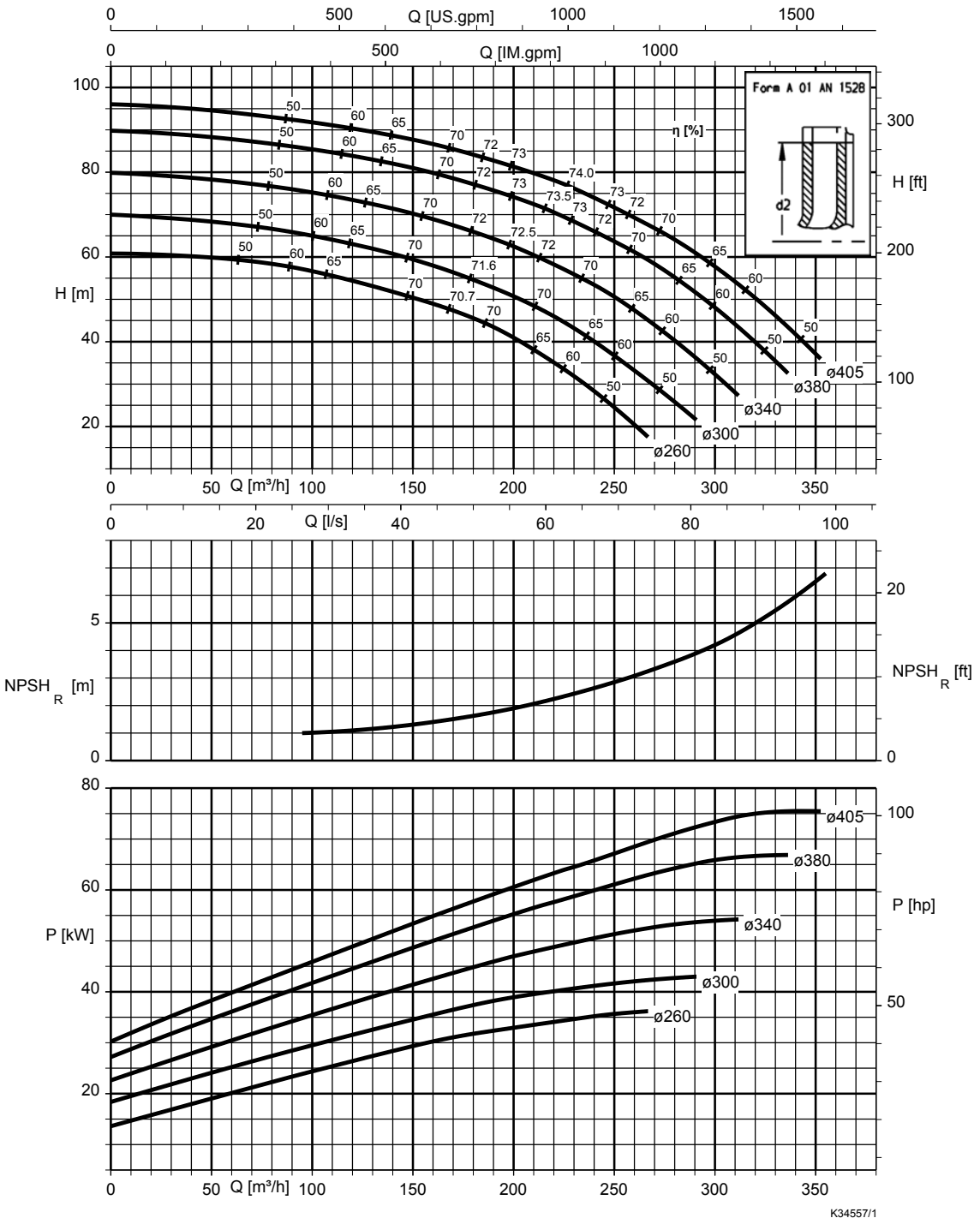
Etanorm 200-150-400, n = 1450 rpm

Etanorm SYT, Etanorm V, Etabloc



Etanorm-R 125-500.2, n = 1450 rpm

Etanorm-RSY

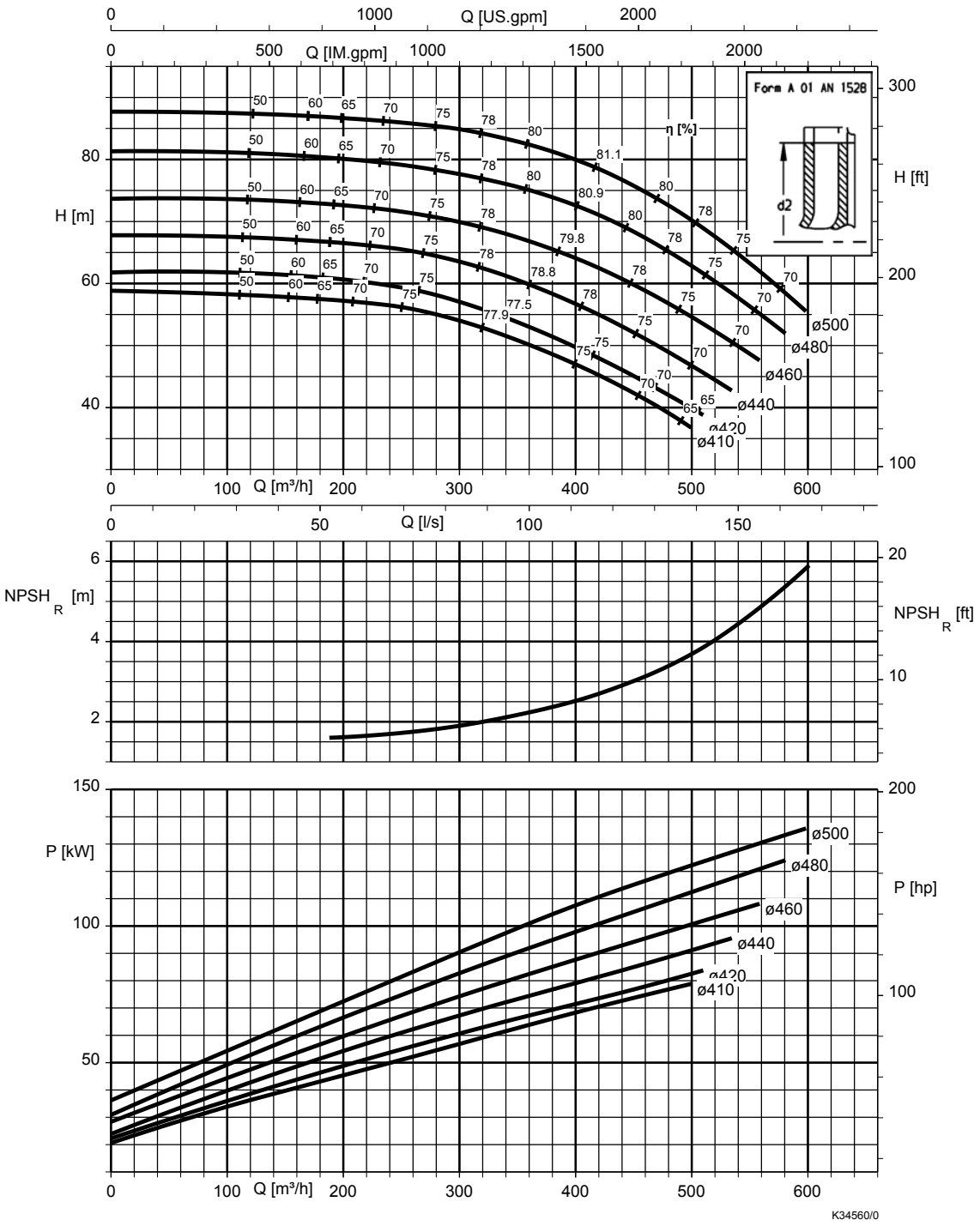


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 150-500.1, n = 1450 rpm

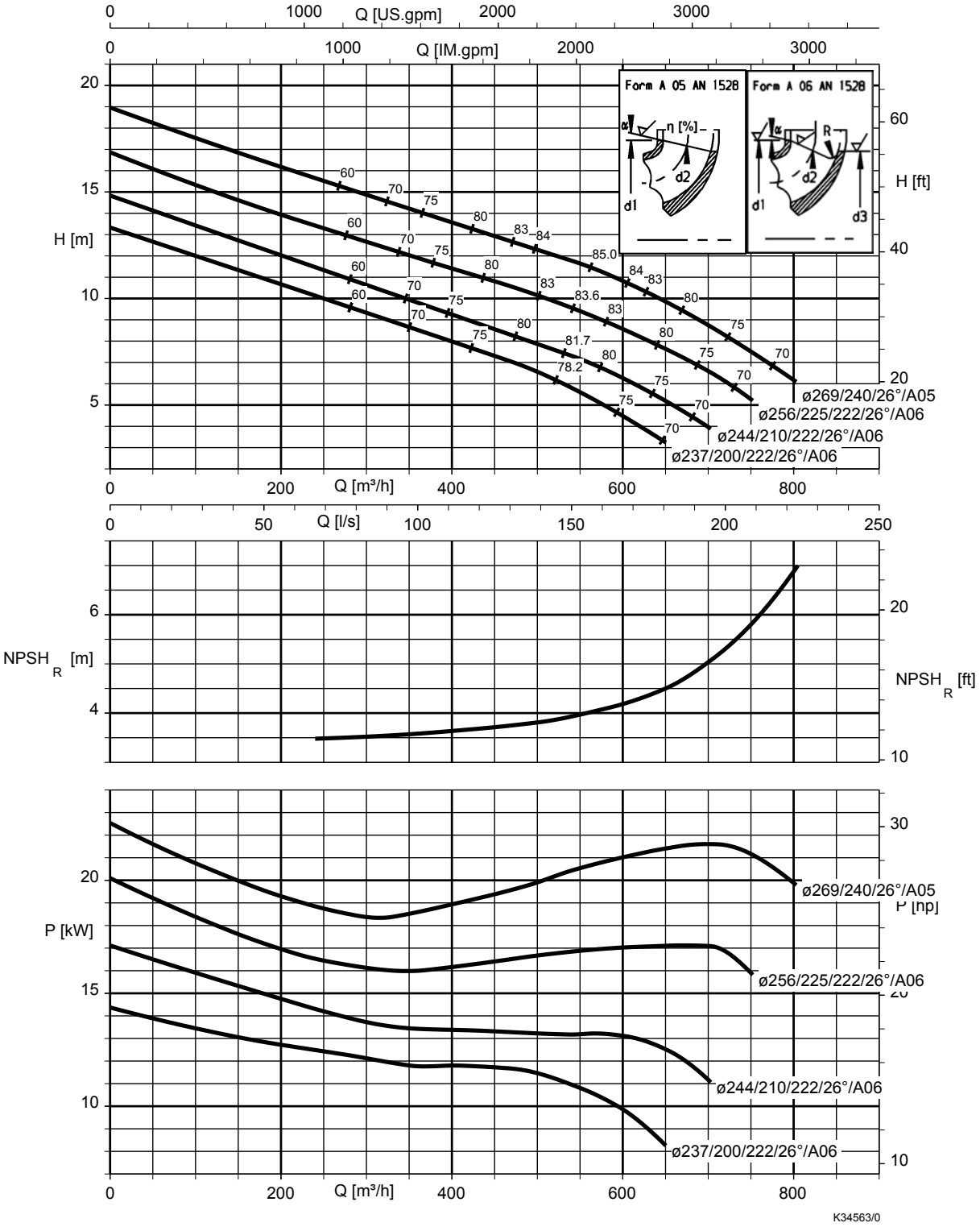
Etanorm-RSY



Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

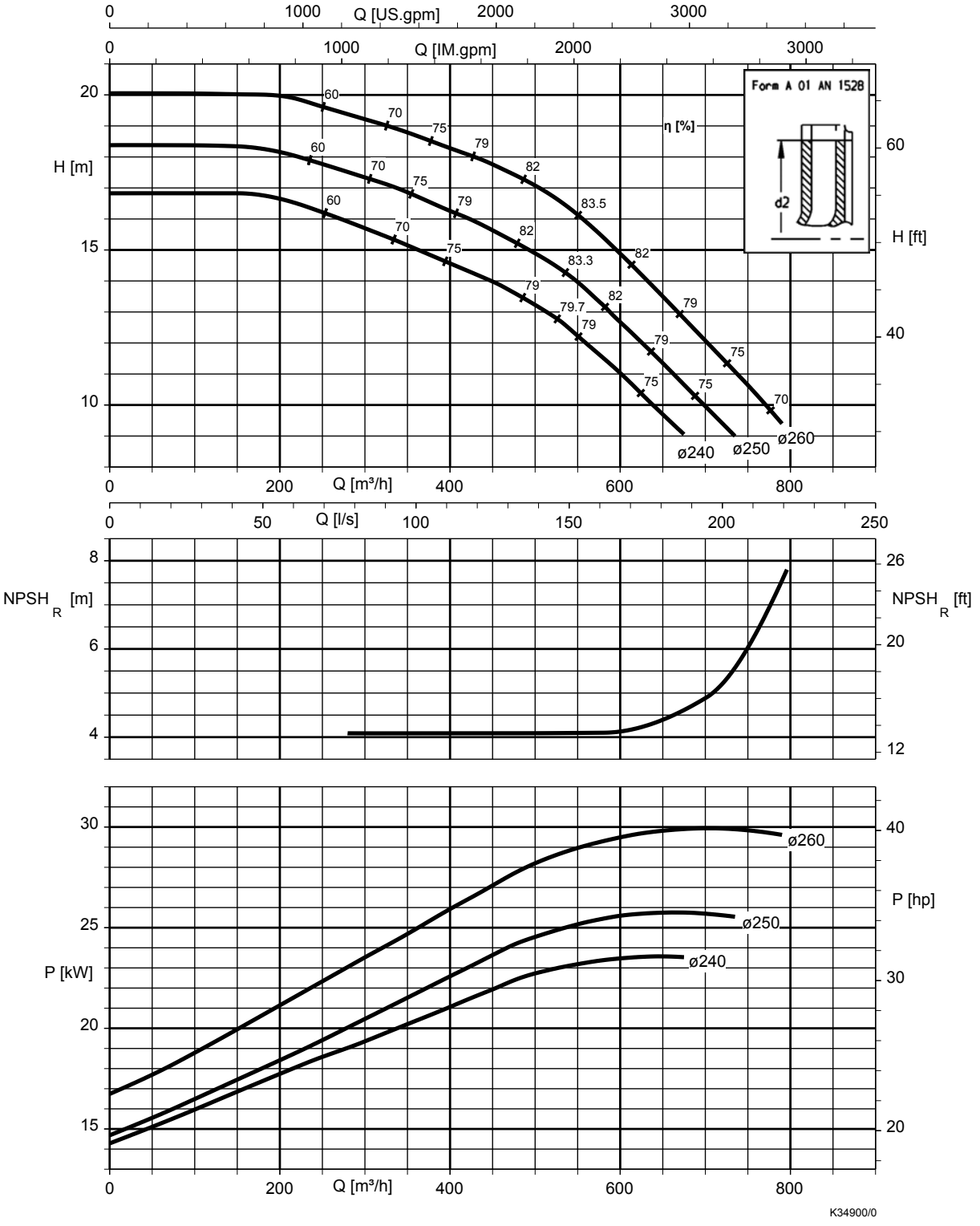
Etanorm-R 200-250, n = 1450 rpm



Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	2,6	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	1,0	
1.4408	0,5	

Etanorm-R 200-260, n = 1450 rpm

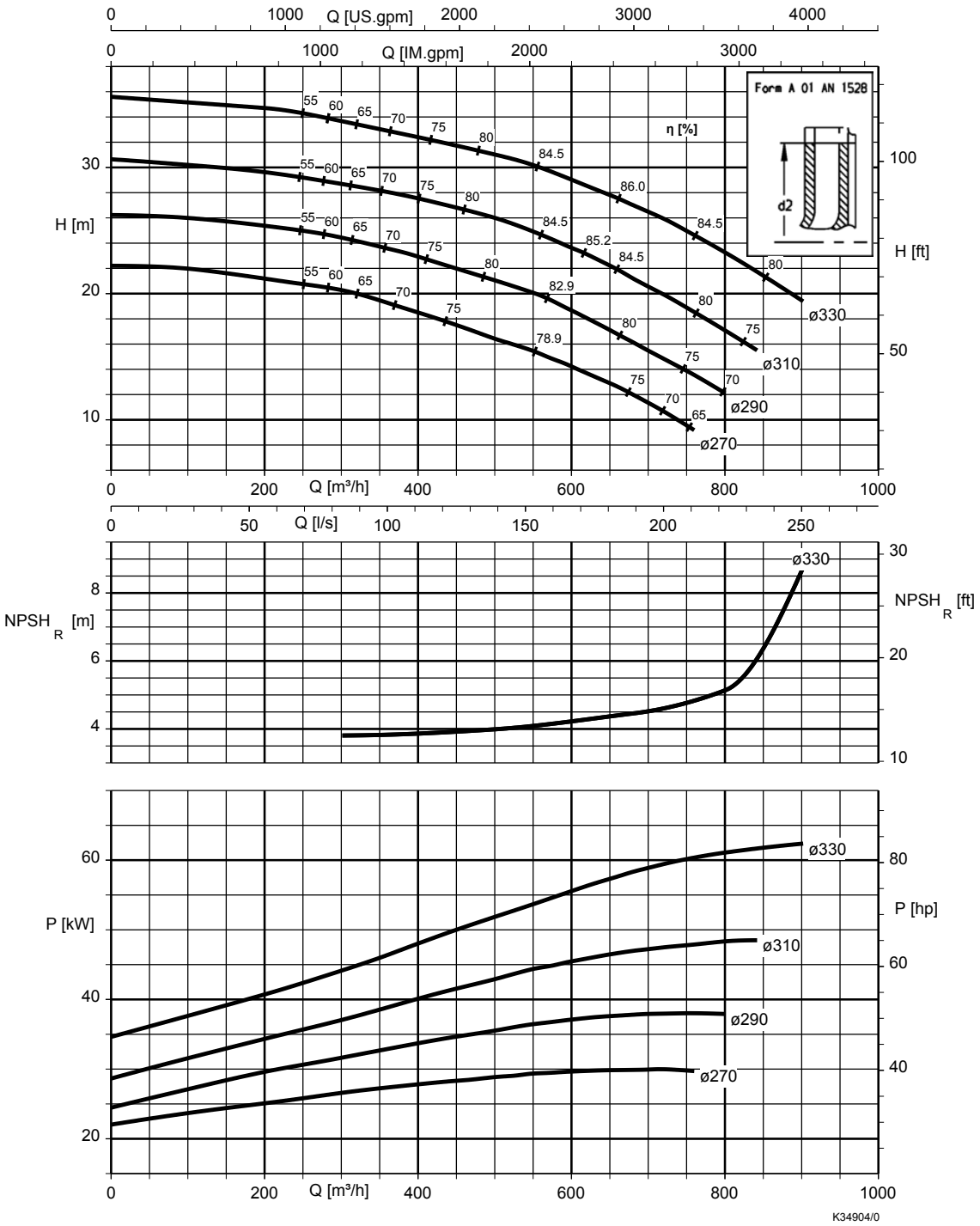


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 200-330, n = 1450 rpm

Etanorm-RSY

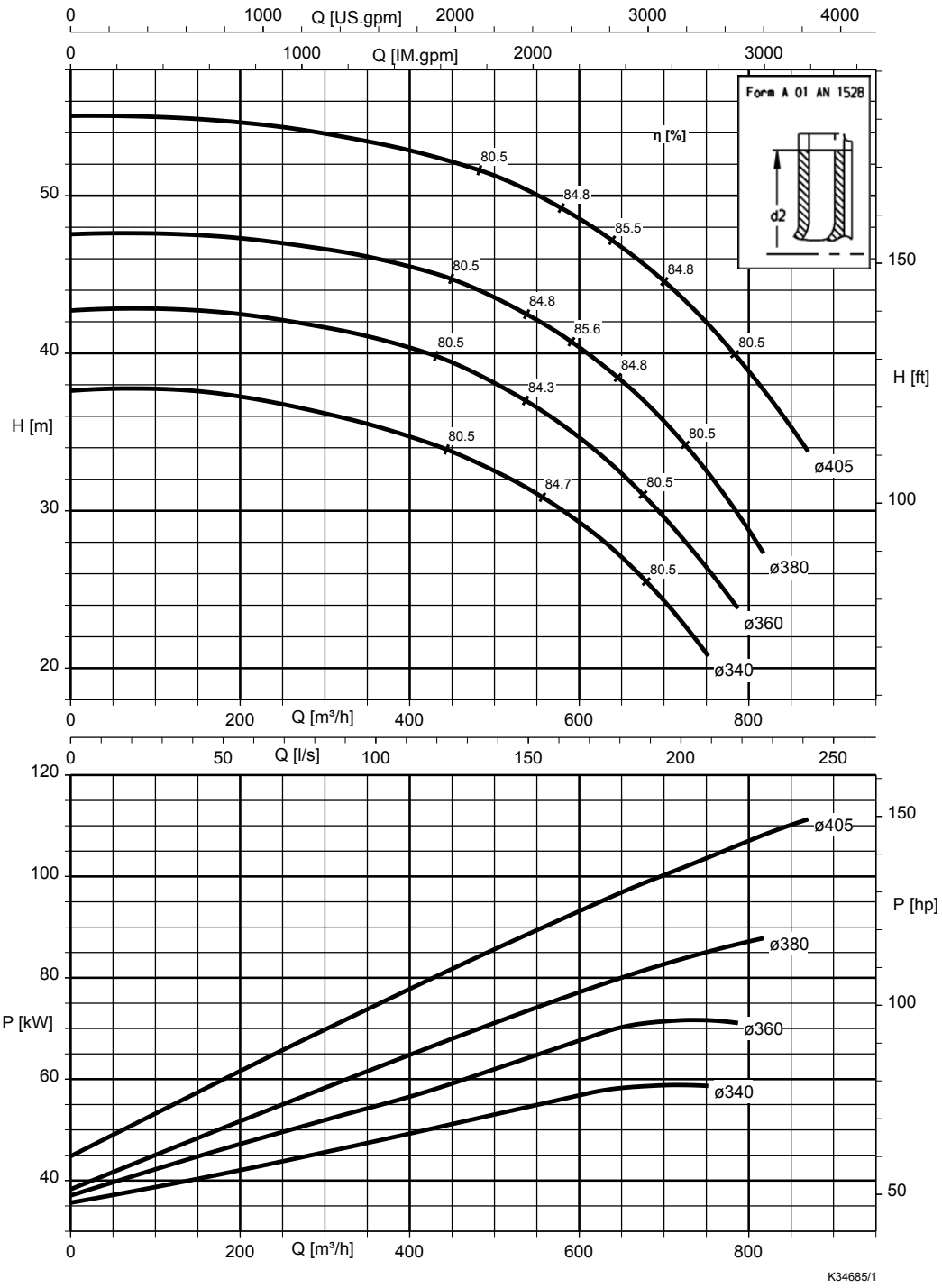


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq$ NPSH + correction coefficient **S**
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 200-400, n = 1450 min^{-1}

Etanorm-RSY

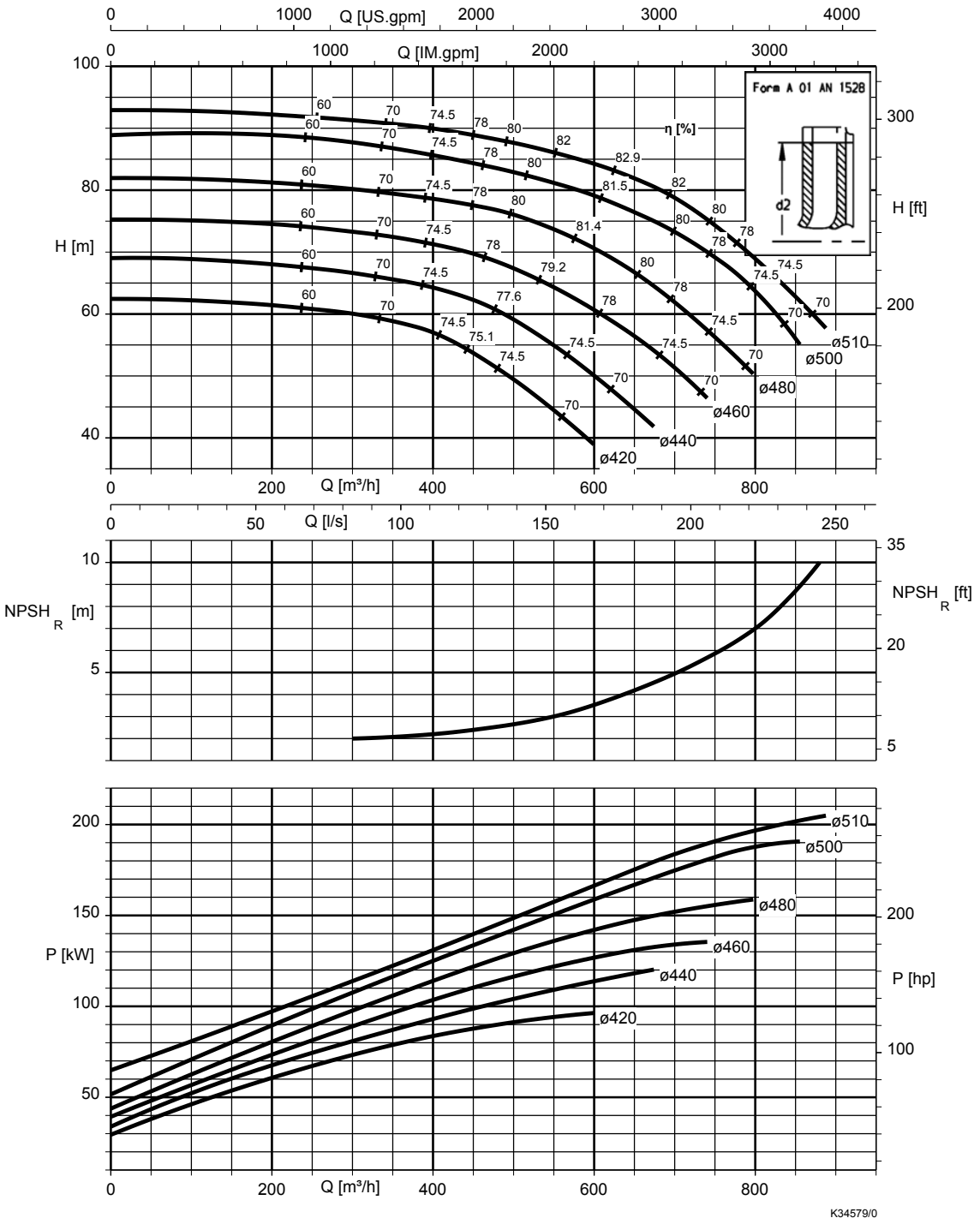


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	1,6	$NPSH_{available} \geq NPSH$ + correction coefficient **S**
CC480K-GS	1,0	
1.4408	0,5	

Etanorm-R 200-500, n = 1450 rpm

Etanorm-RSY

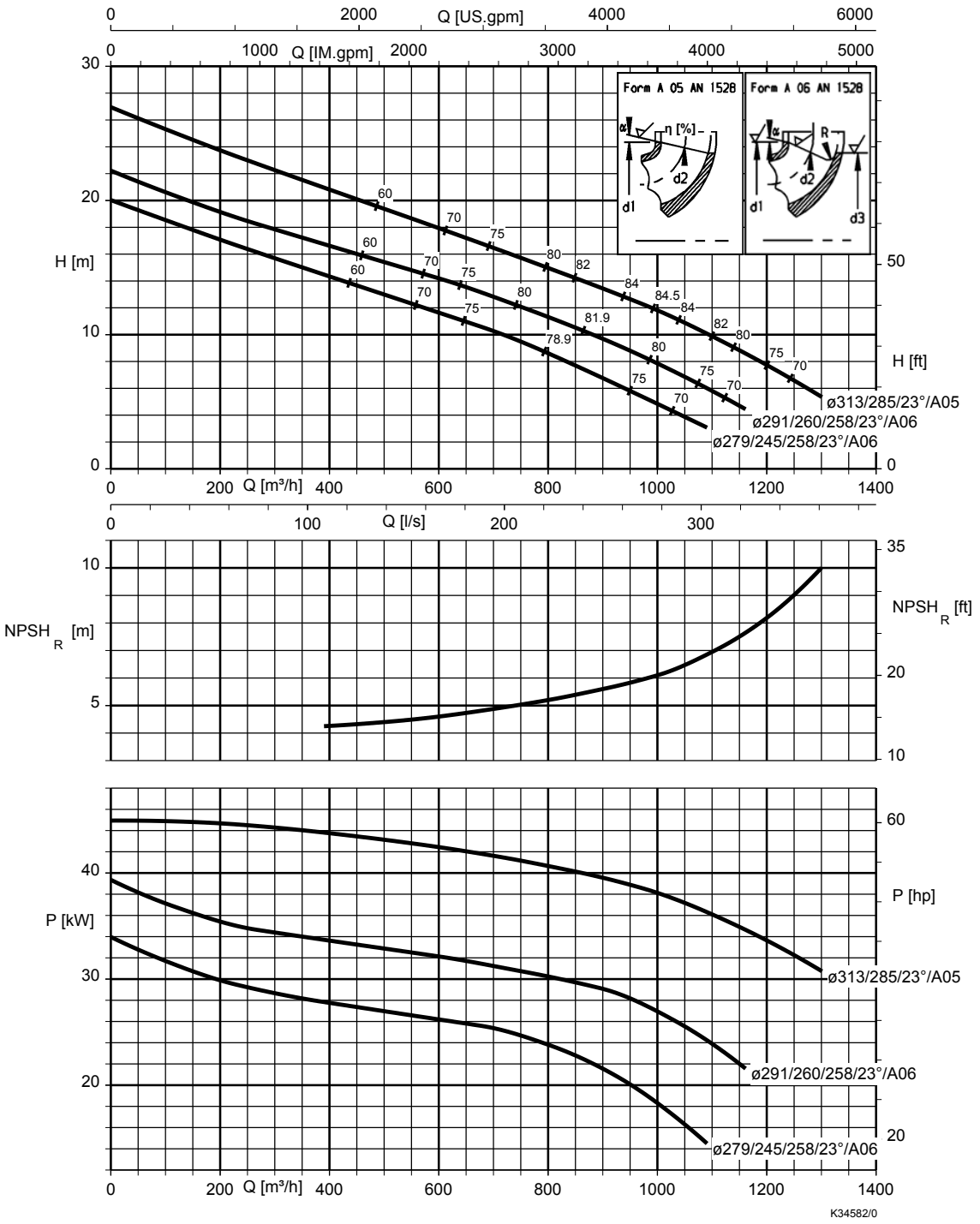


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	1,8	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	1,0	
1.4408	0,5	

Etanorm-R 250-300, n = 1450 min^{-1}

Etanorm-RSY

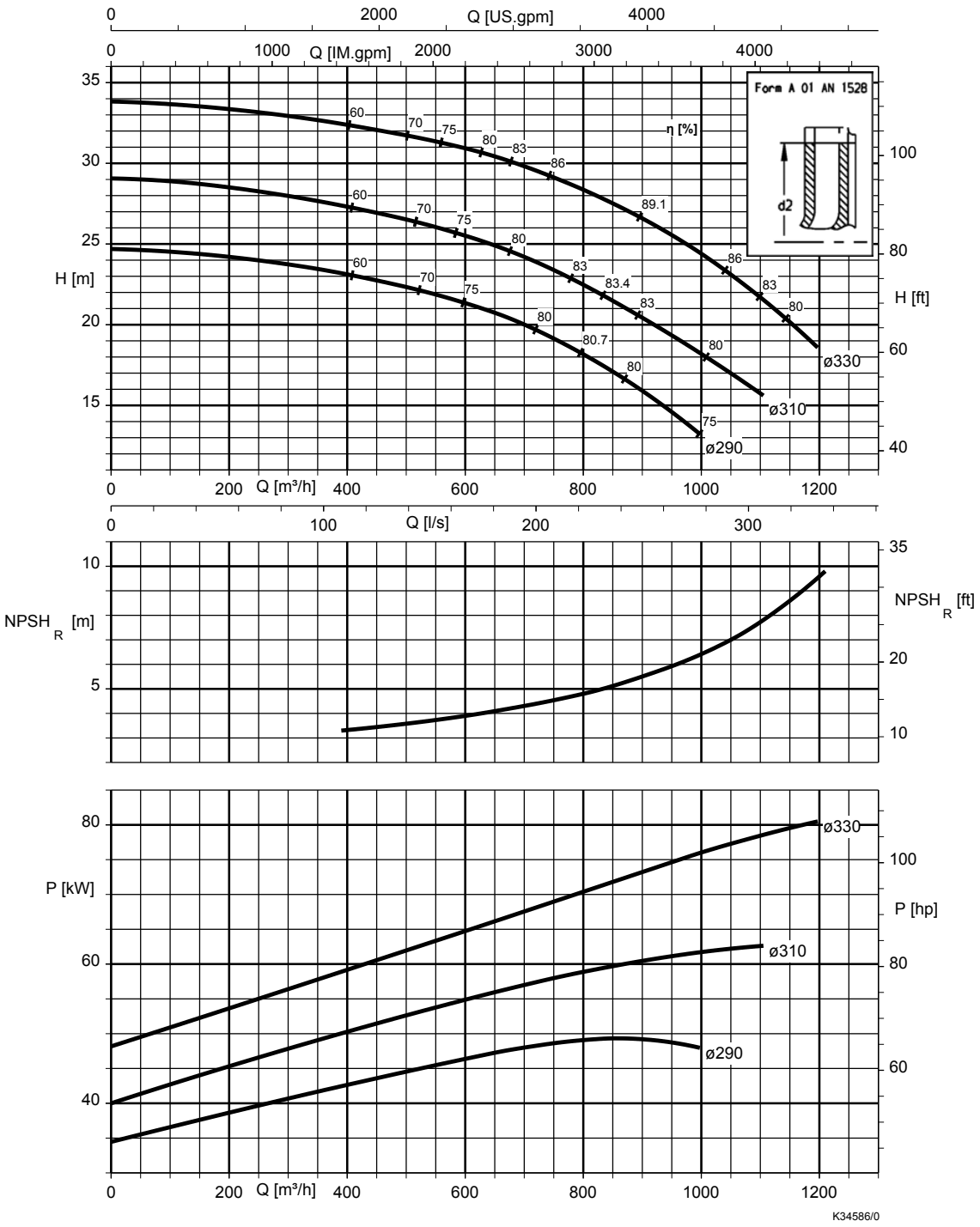


Correction coefficients

Impeller material	Correction coefficient S [m]
EN-GJL-250	2,7
CC480K-GS	1,5
1.4408	0,5
$NPSH_{available} \geq$ NPSH + correction coefficient **S**	

Etanorm-R 250-330, n = 1450 rpm

Etanorm-RSY

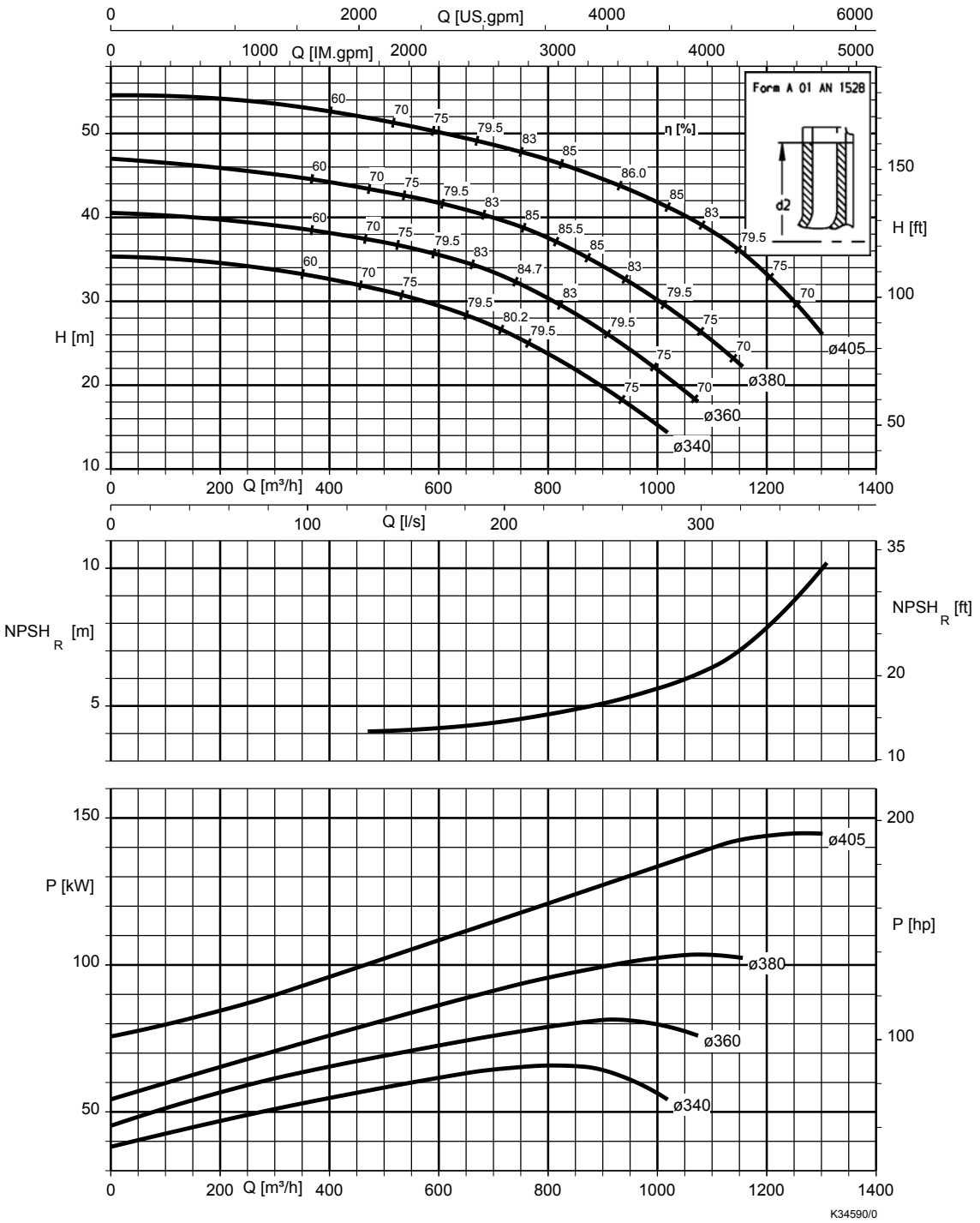


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	2,0	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	1,0	
1.4408	0,5	

Etanorm-R 250-400, n = 1450 rpm

Etanorm-RSY

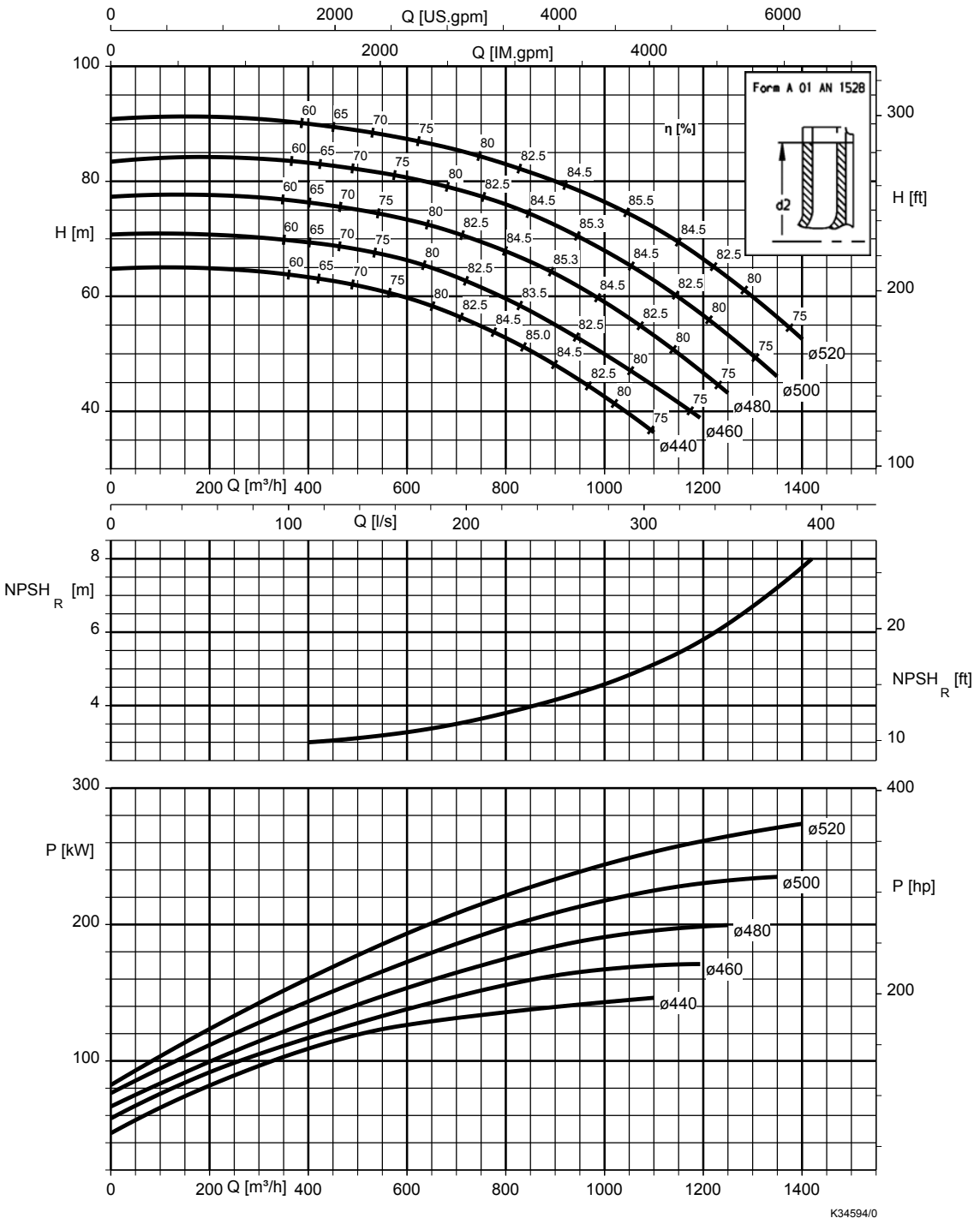


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	2,8	$NPSH_{available} \geq$ NPSH + correction coefficient **S**
CC480K-GS	1,8	
1.4408	0,5	

Etanorm-R 250-500, n = 1450 rpm

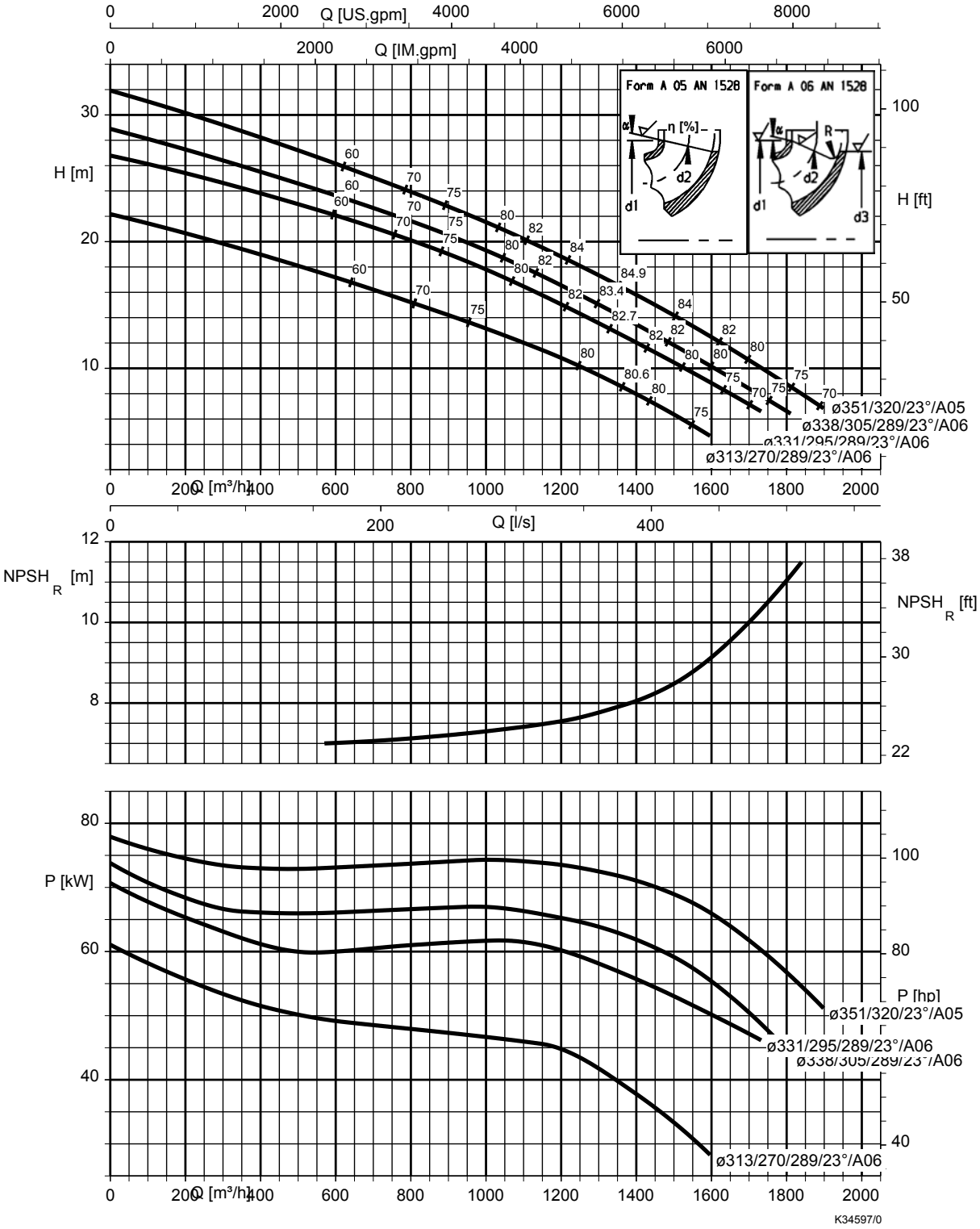
Etanorm-RSY



Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	1,8	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	1,0	
1.4408	0,5	

Etanorm-R 300-340, n = 1450 rpm

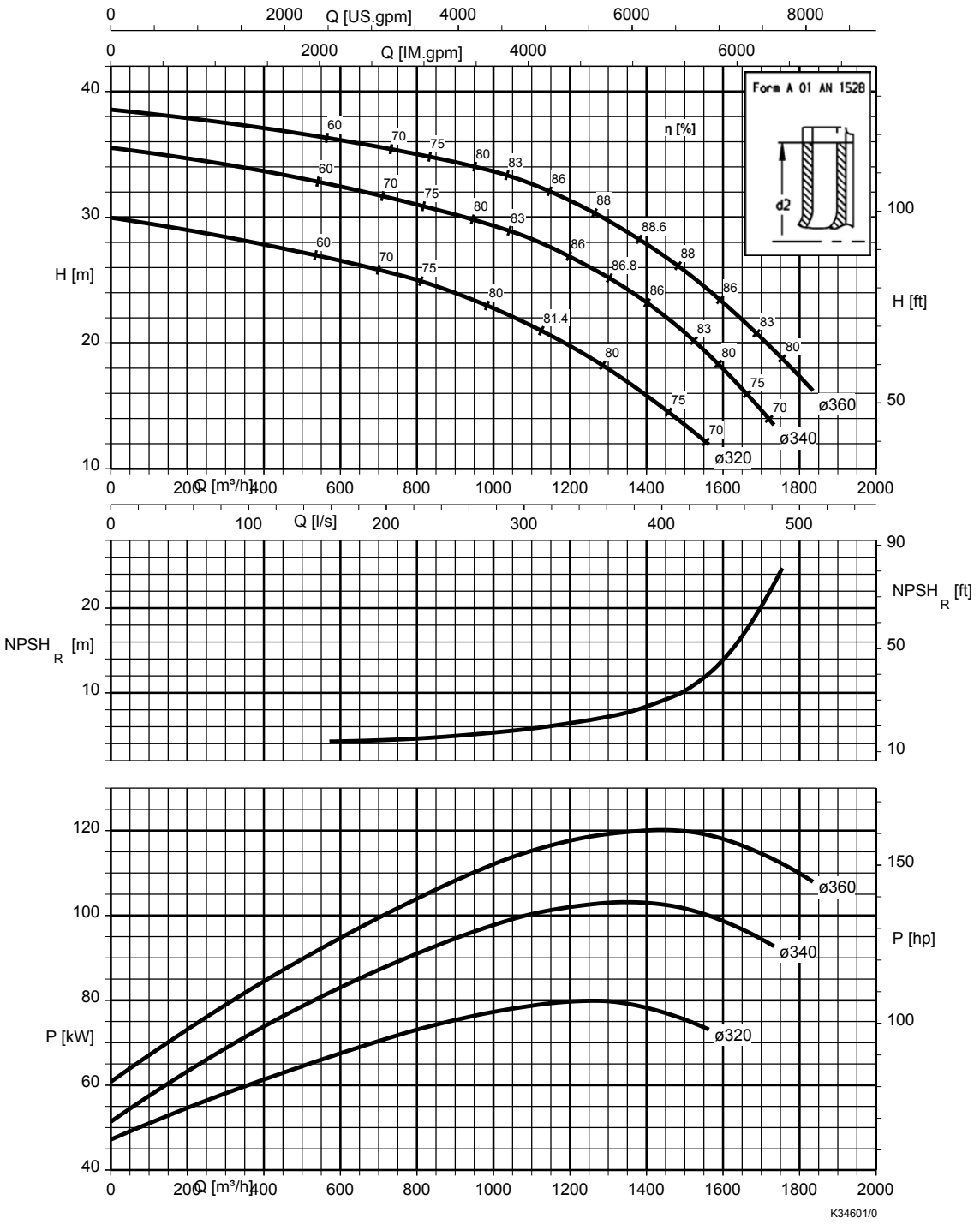


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	2,8	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	1,8	
1.4408	0,5	

Etanorm-R 300-360, n = 1450 rpm

Etanorm-RSY

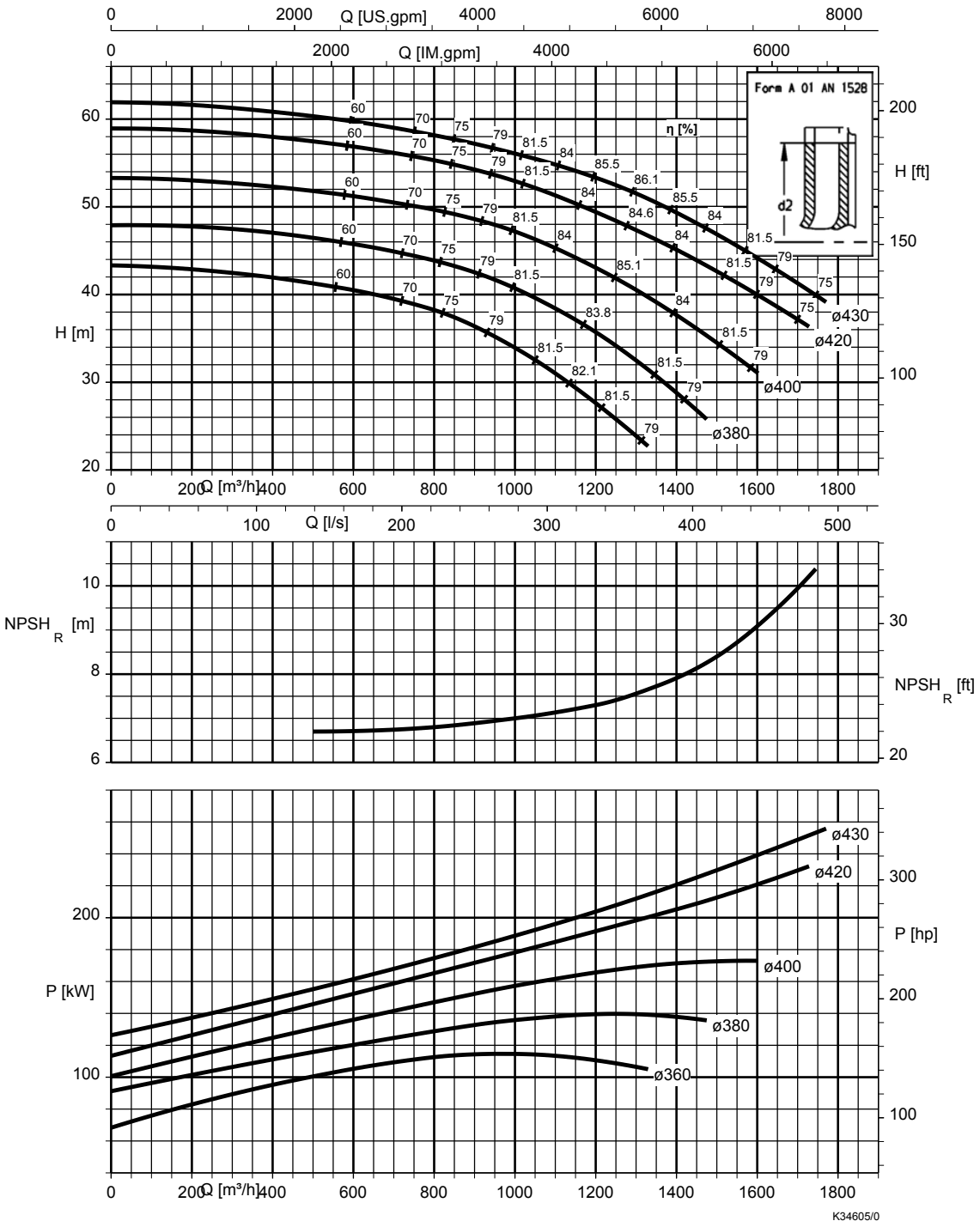


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	1,6	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	1,0	
1.4408	0,5	

Etanorm-R 300-400, n = 1450 rpm

Etanorm-RSY

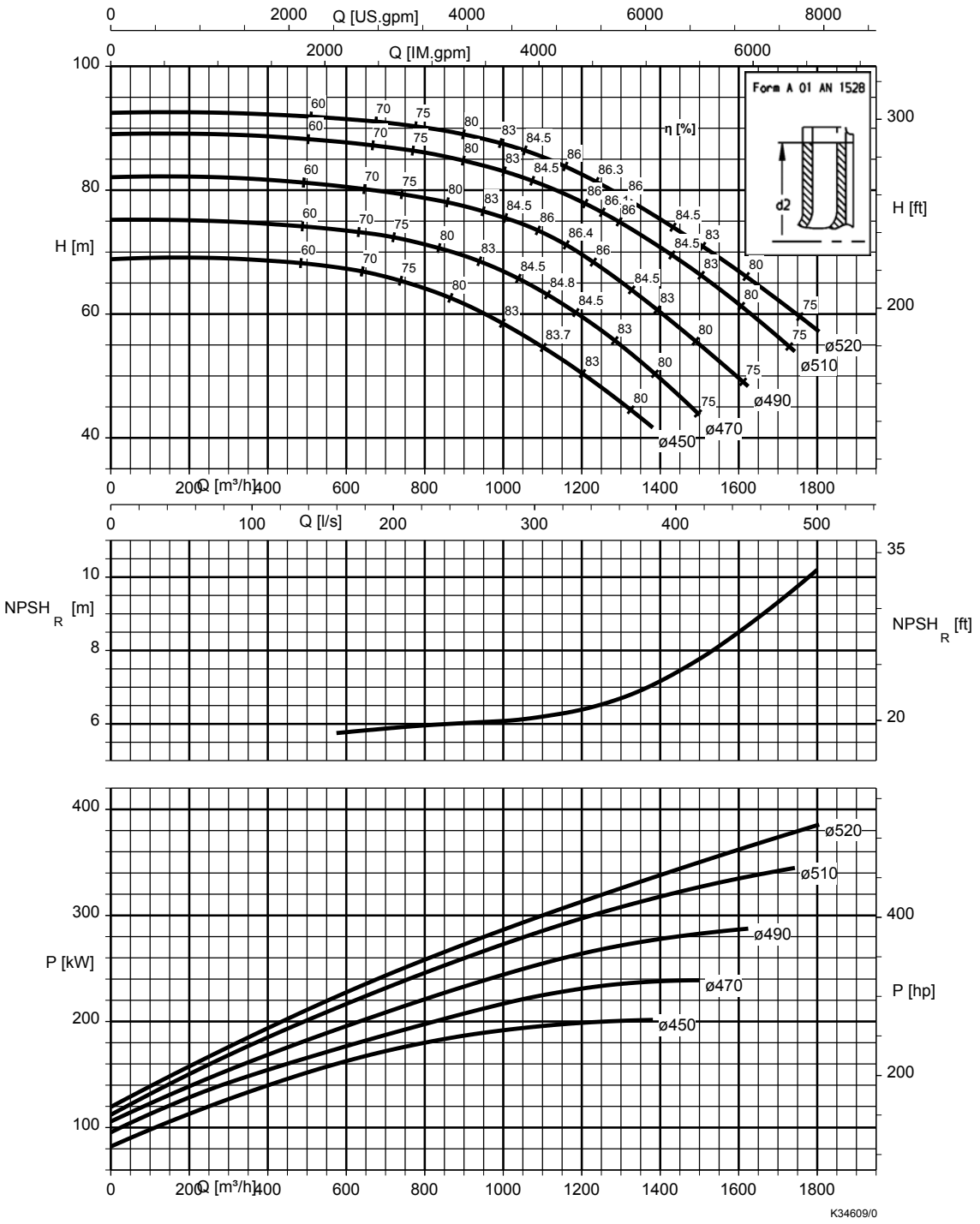


Correction coefficients

Impeller material	Correction coefficient S [m]
EN-GJL-250	1,5
CC480K-GS	1,0
1.4408	0,5
$NPSH_{available} \geq$ NPSH + correction coefficient **S**	

Etanorm-R 300-500, n = 1450 rpm

Etanorm-RSY



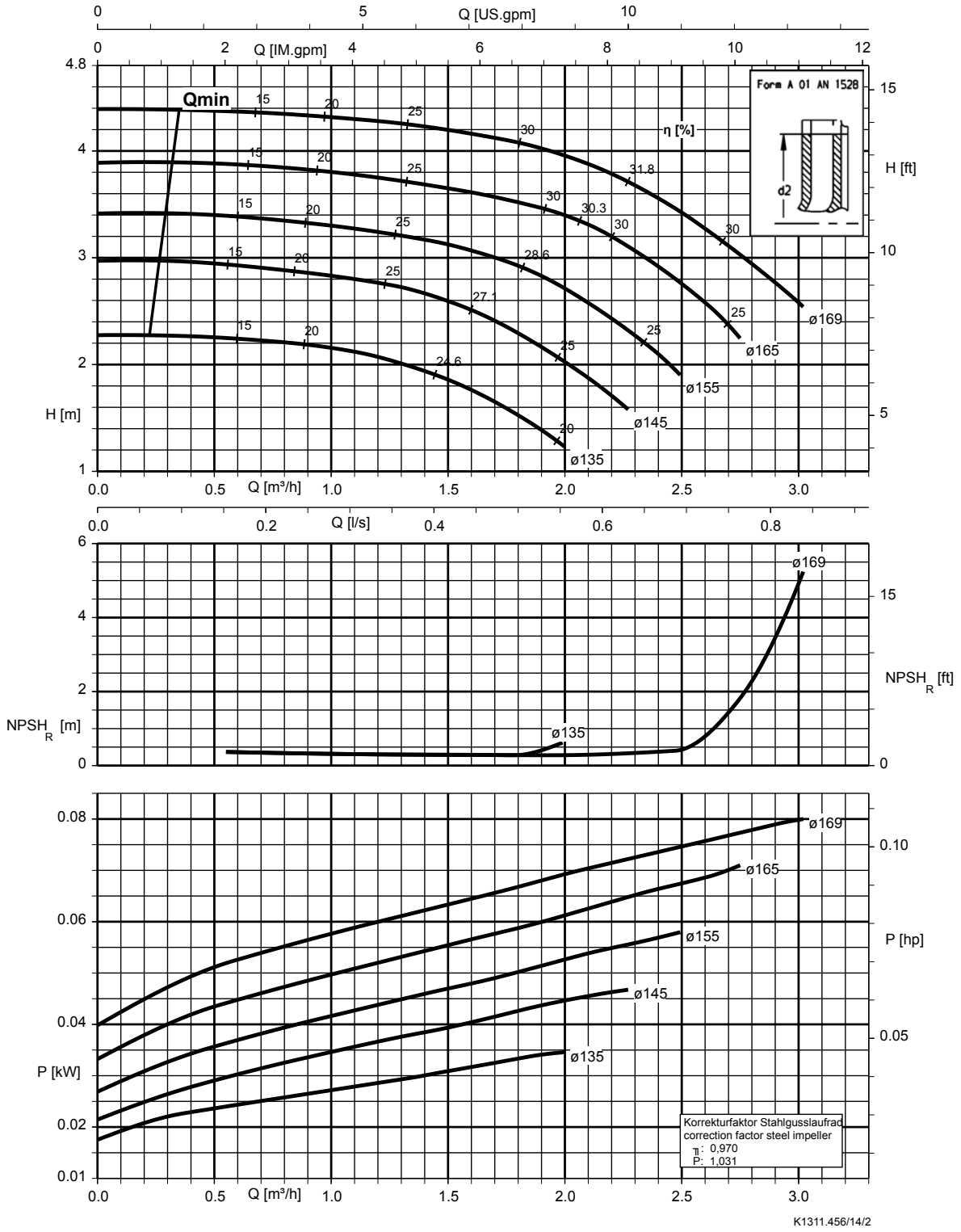
Correction coefficients

Impeller material	Correction coefficient S [m]
EN-GJL-250	3,2
CC480K-GS	1,5
1.4408	0,5
$NPSH_{available} \geq$ NPSH + correction coefficient **S**	

n = 960 rpm

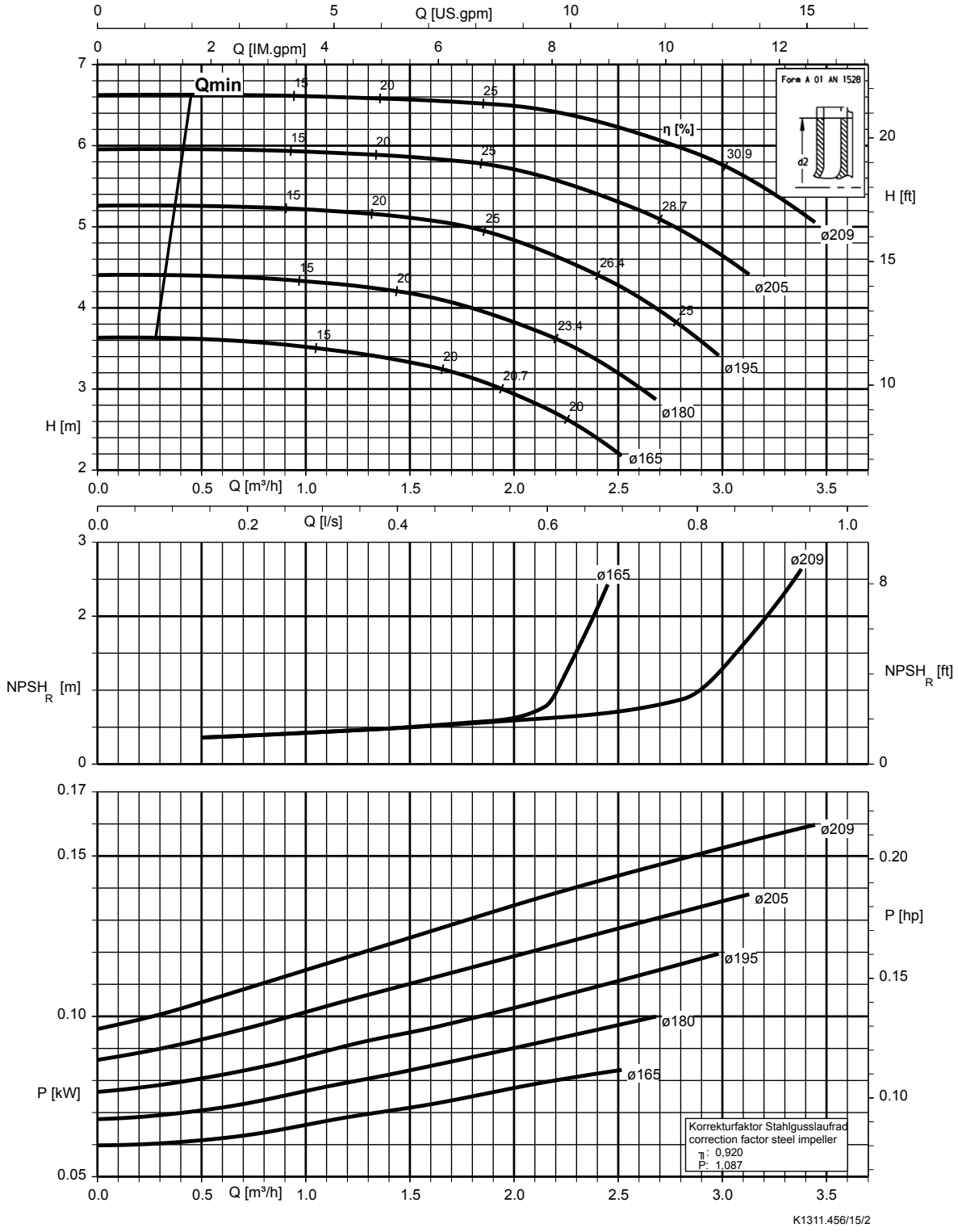
Etanorm 040-025-160, n = 960 rpm

Etanorm SYT, Etabloc



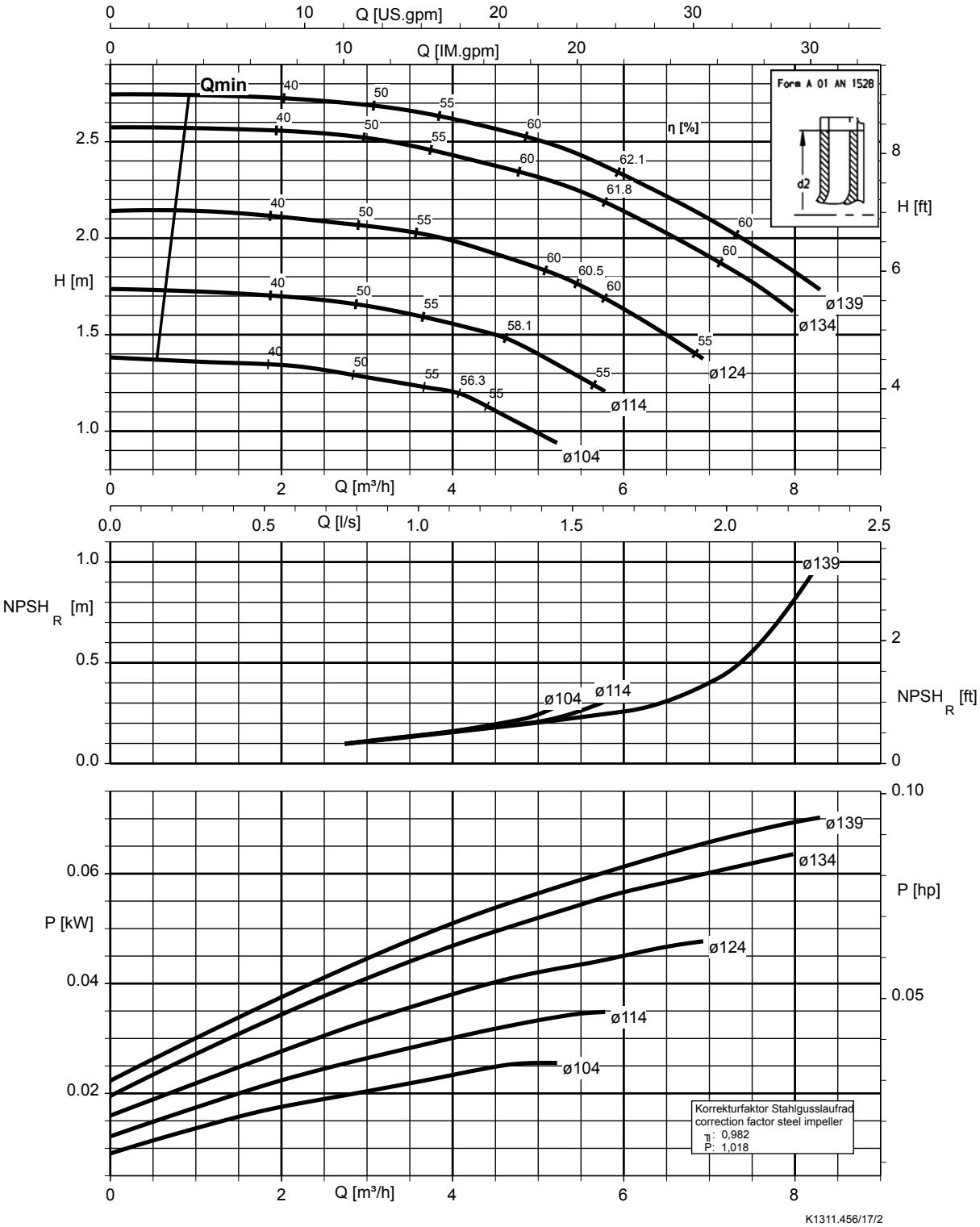
Etanorm 040-025-200, n = 960 rpm

Etanorm SYT, Etabloc



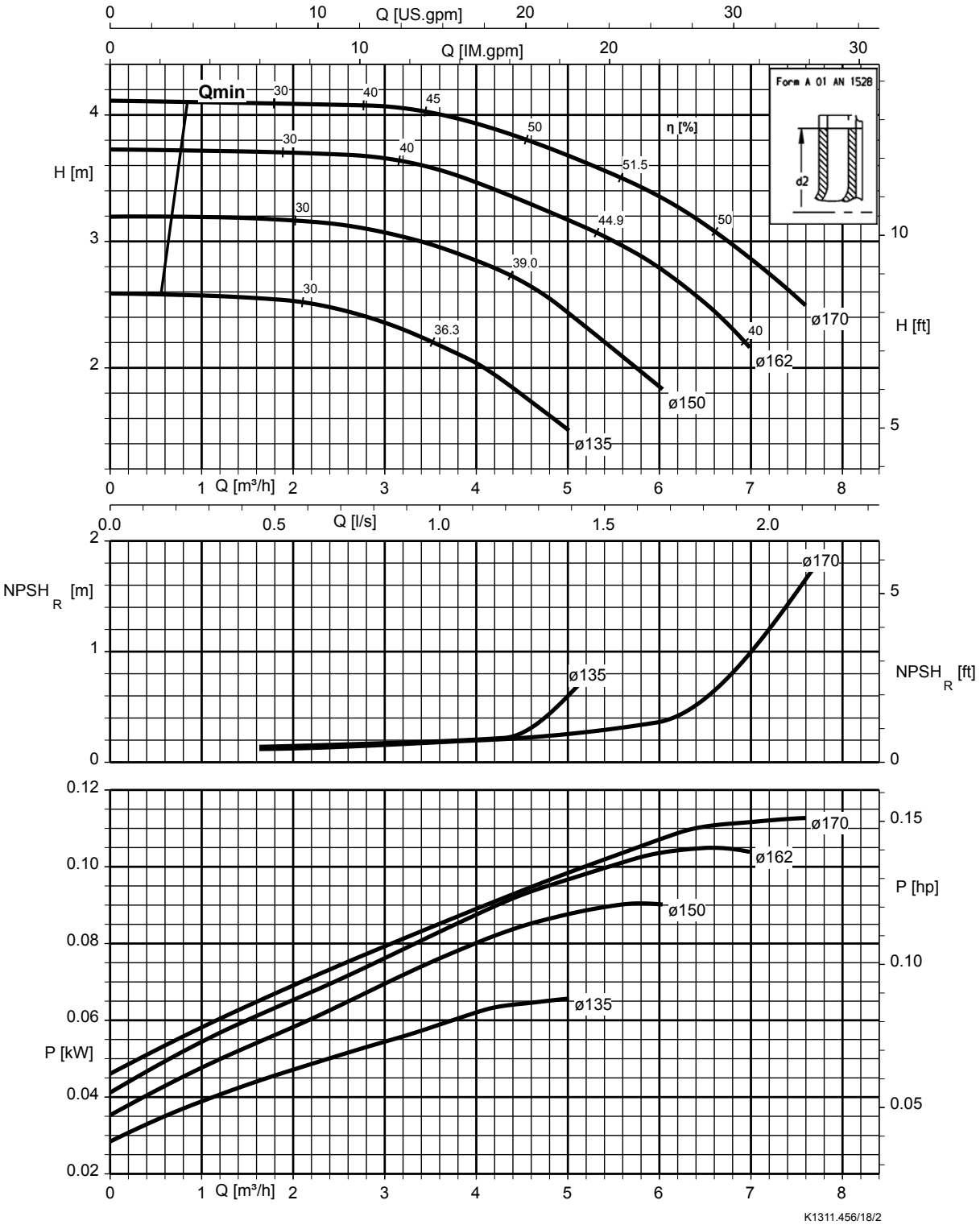
Etanorm 050-032-125.1, n = 960 rpm

Etanorm SYT, Etabloc



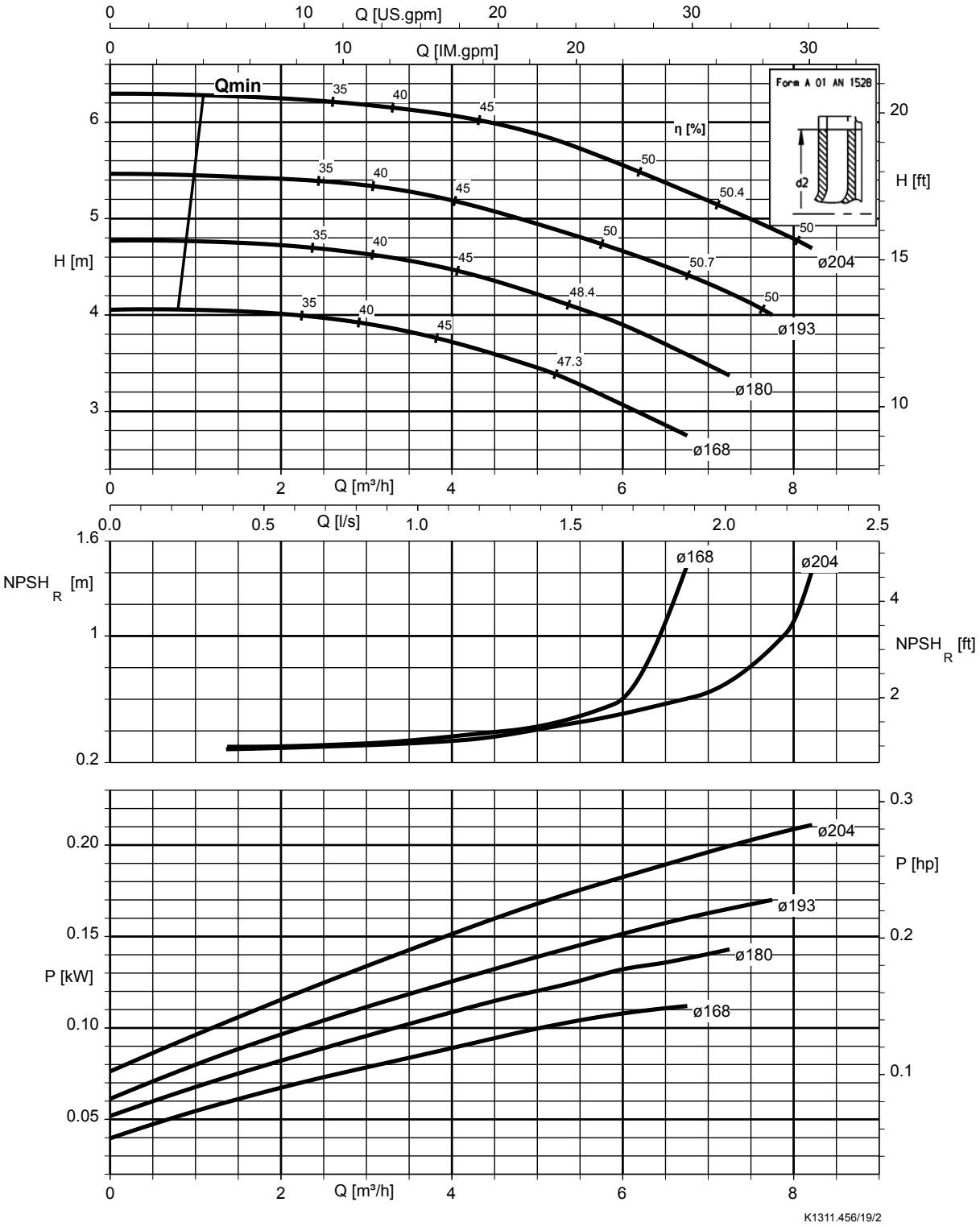
Etanorm 050-032-160.1, n = 960 rpm

Etanorm SYT, Etabloc



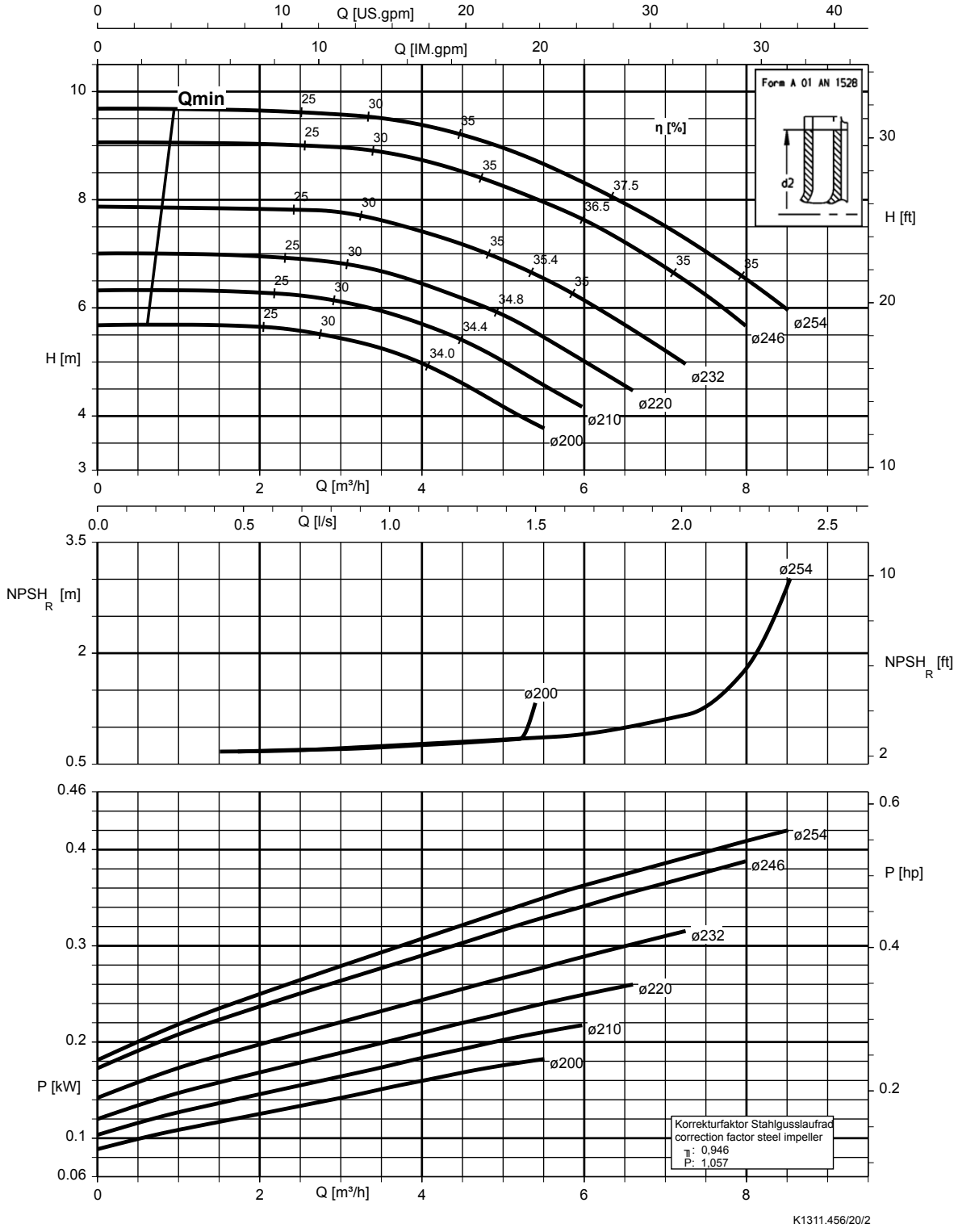
Etanorm 050-032-200.1, n = 960 rpm

Etanorm SYT, Etabloc



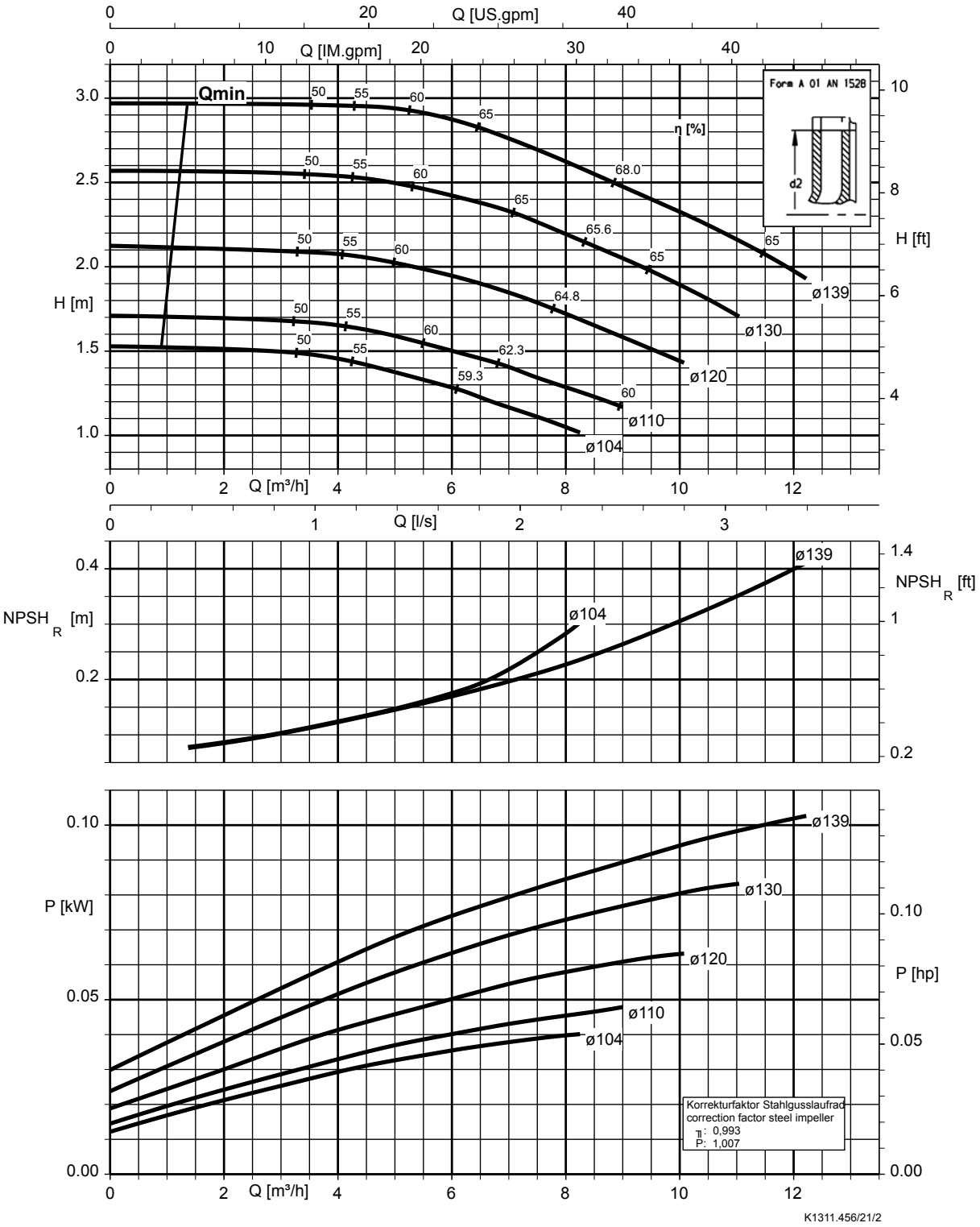
Etanorm 050-032-250.1, n = 960 rpm

Etabloc



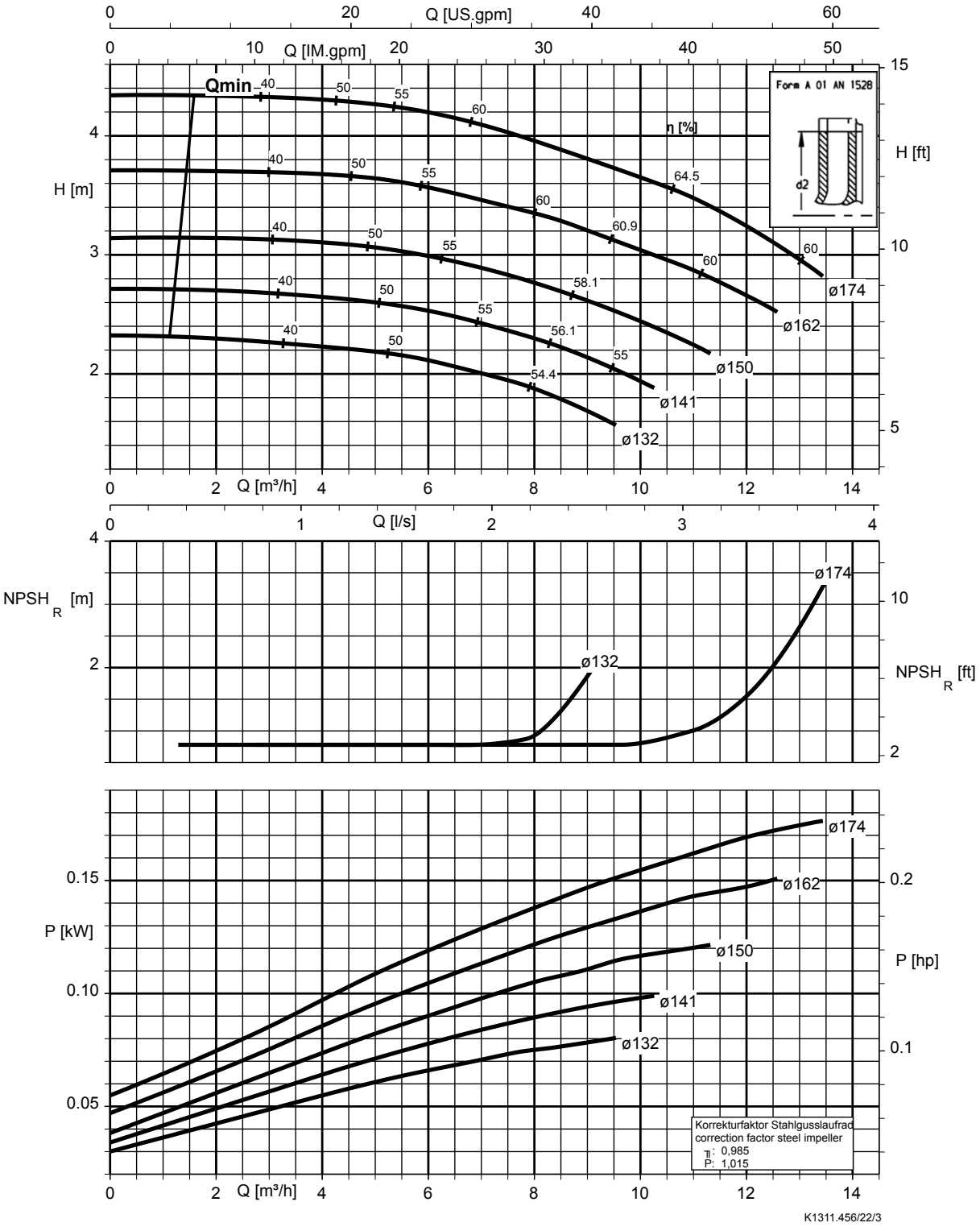
Etanorm 050-032-125, n = 960 rpm

Etabloc



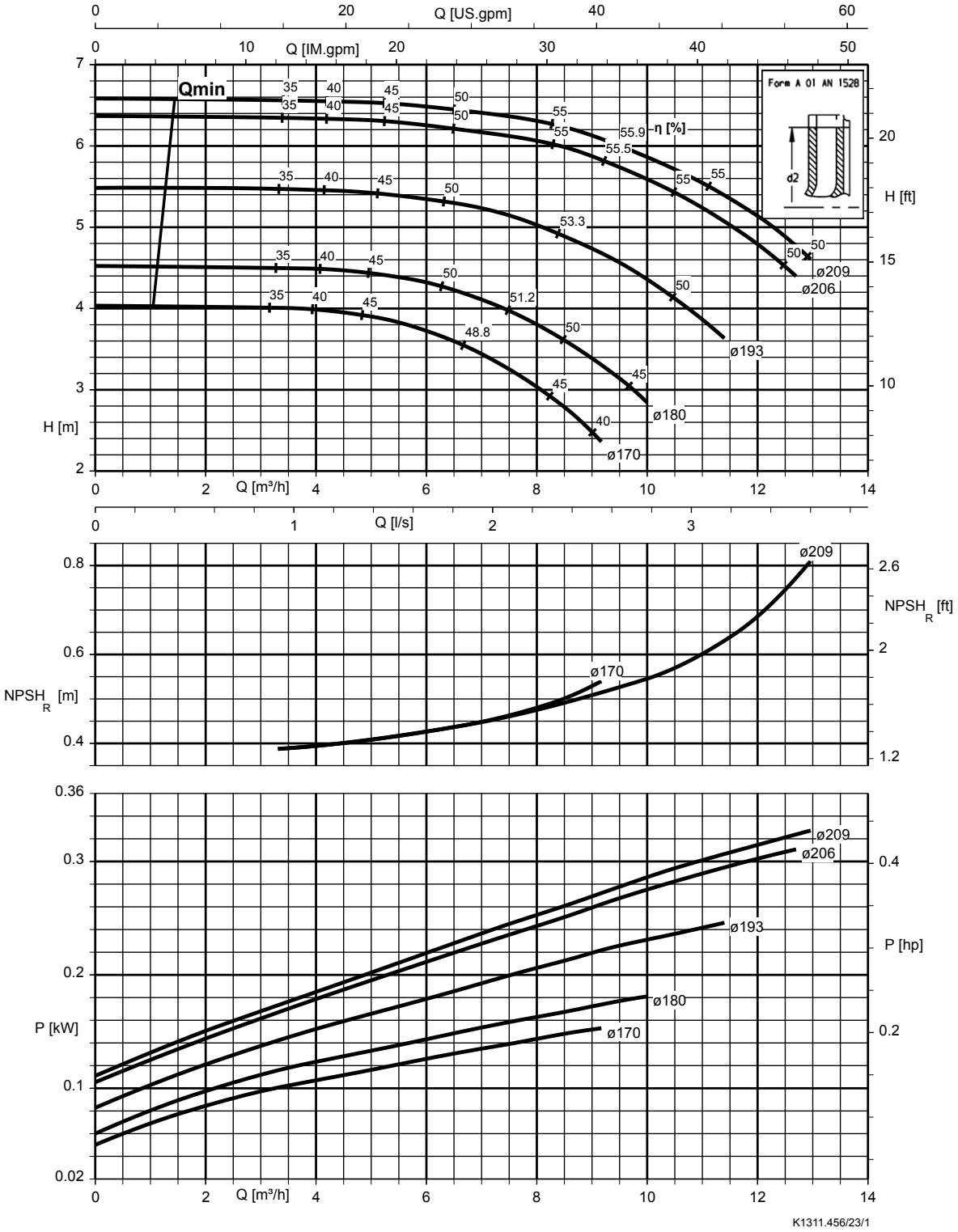
Etanorm 050-032-160, n = 960 rpm

Etanorm SYT, Etabloc



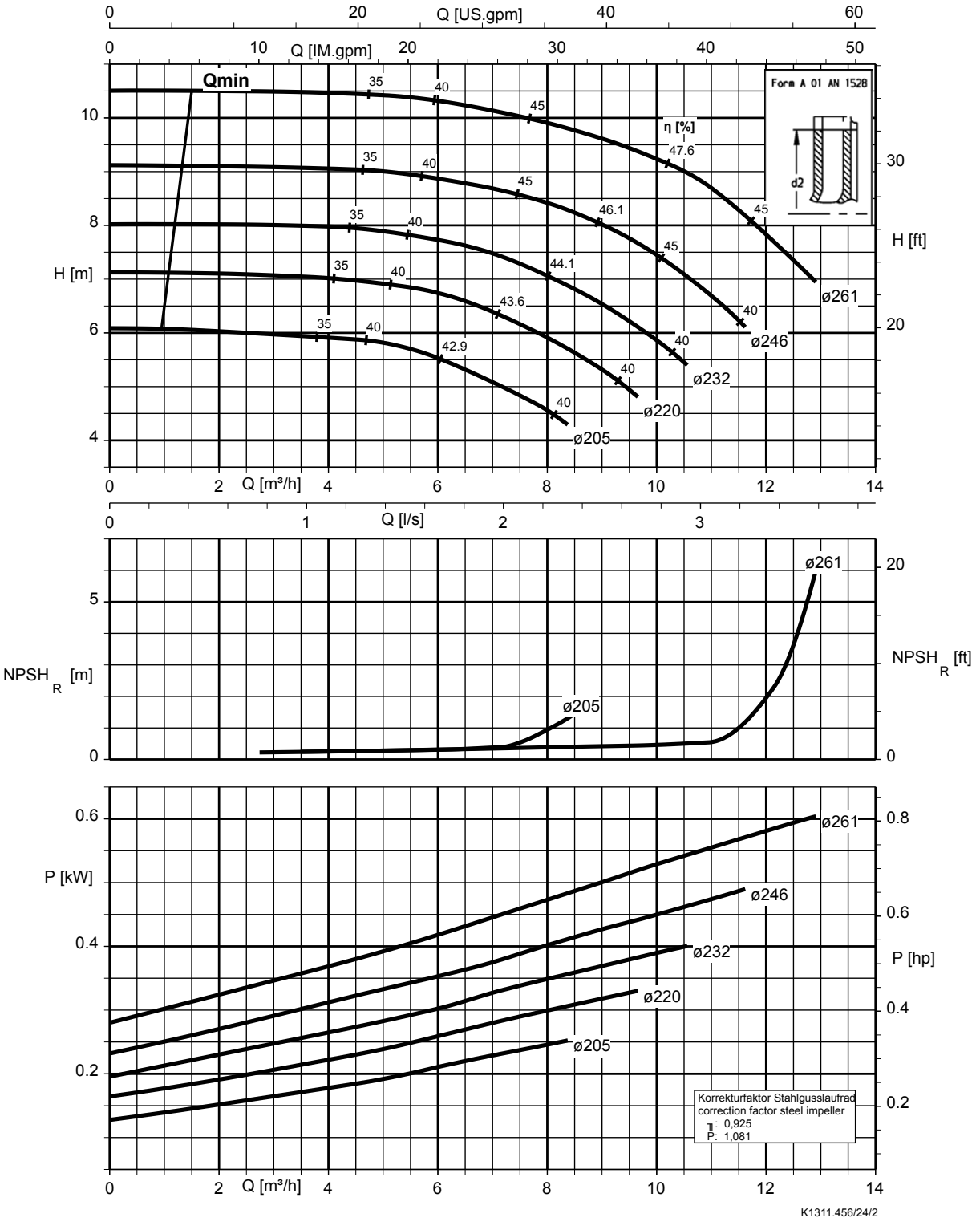
Etanorm 050-032-200, n = 960 rpm

Etanorm SYT, Etabloc



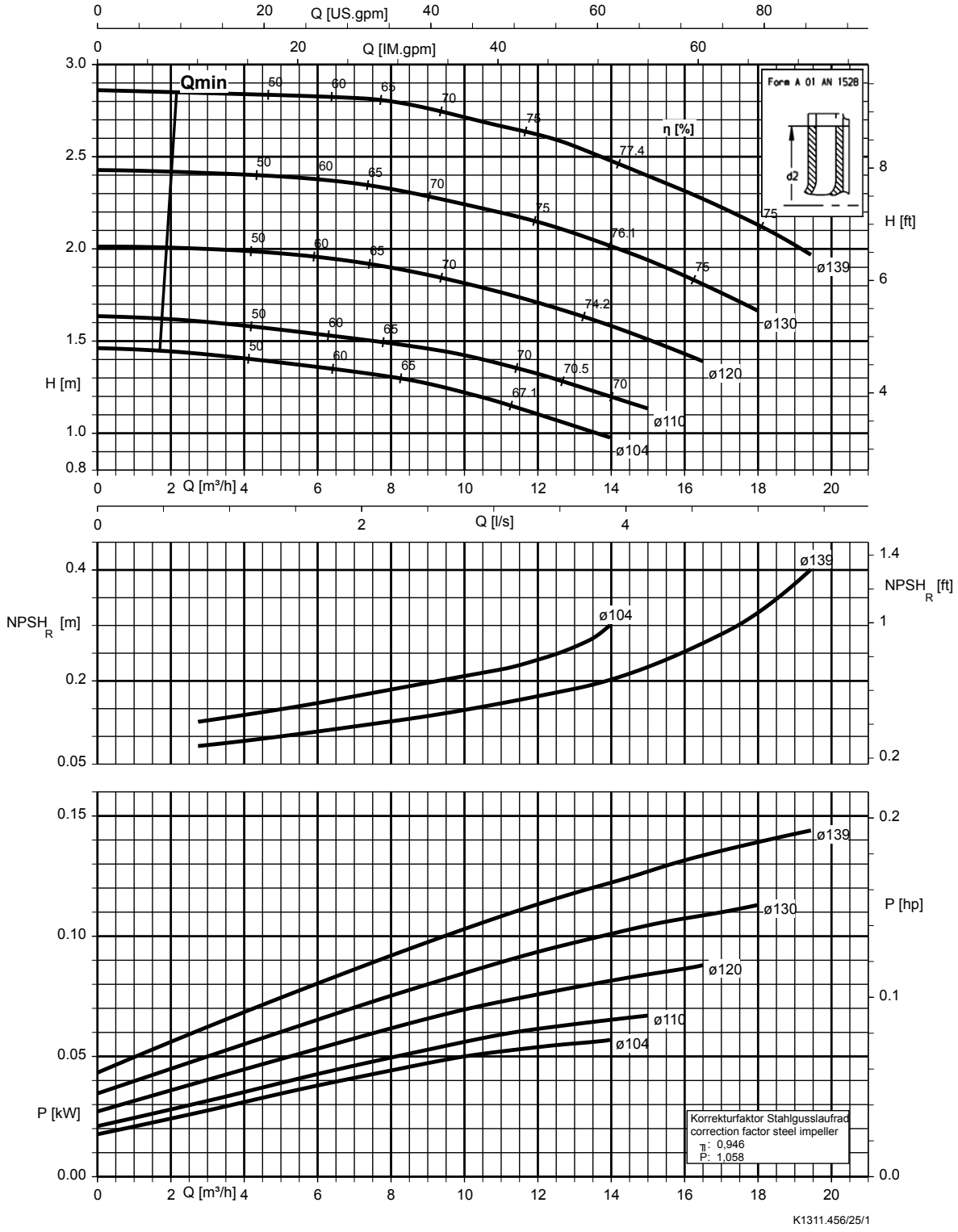
Etanorm 050-032-250, n = 960 rpm

Etanorm SYT, Etabloc



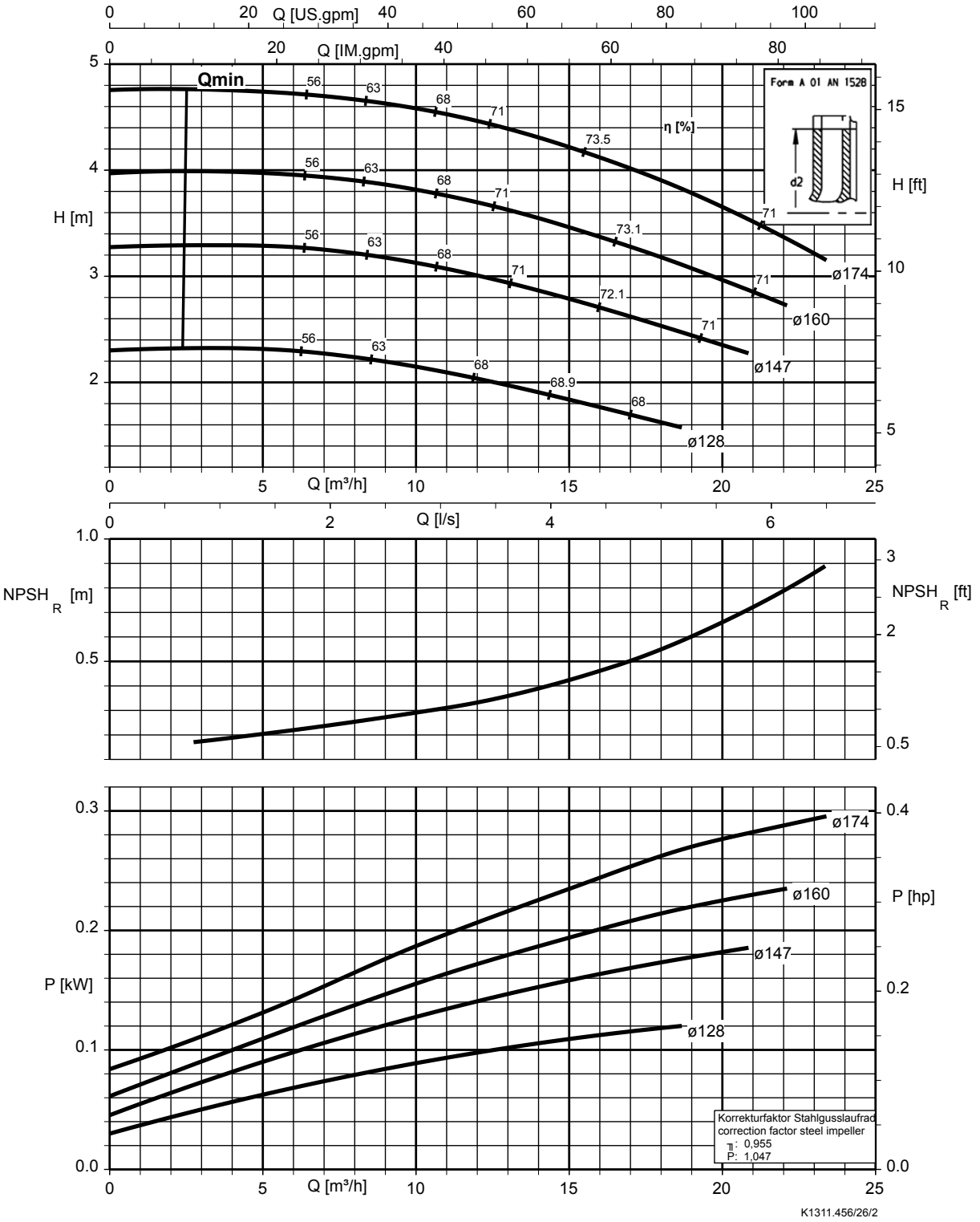
Etanorm 065-040-125, n = 960 rpm

Etabloc



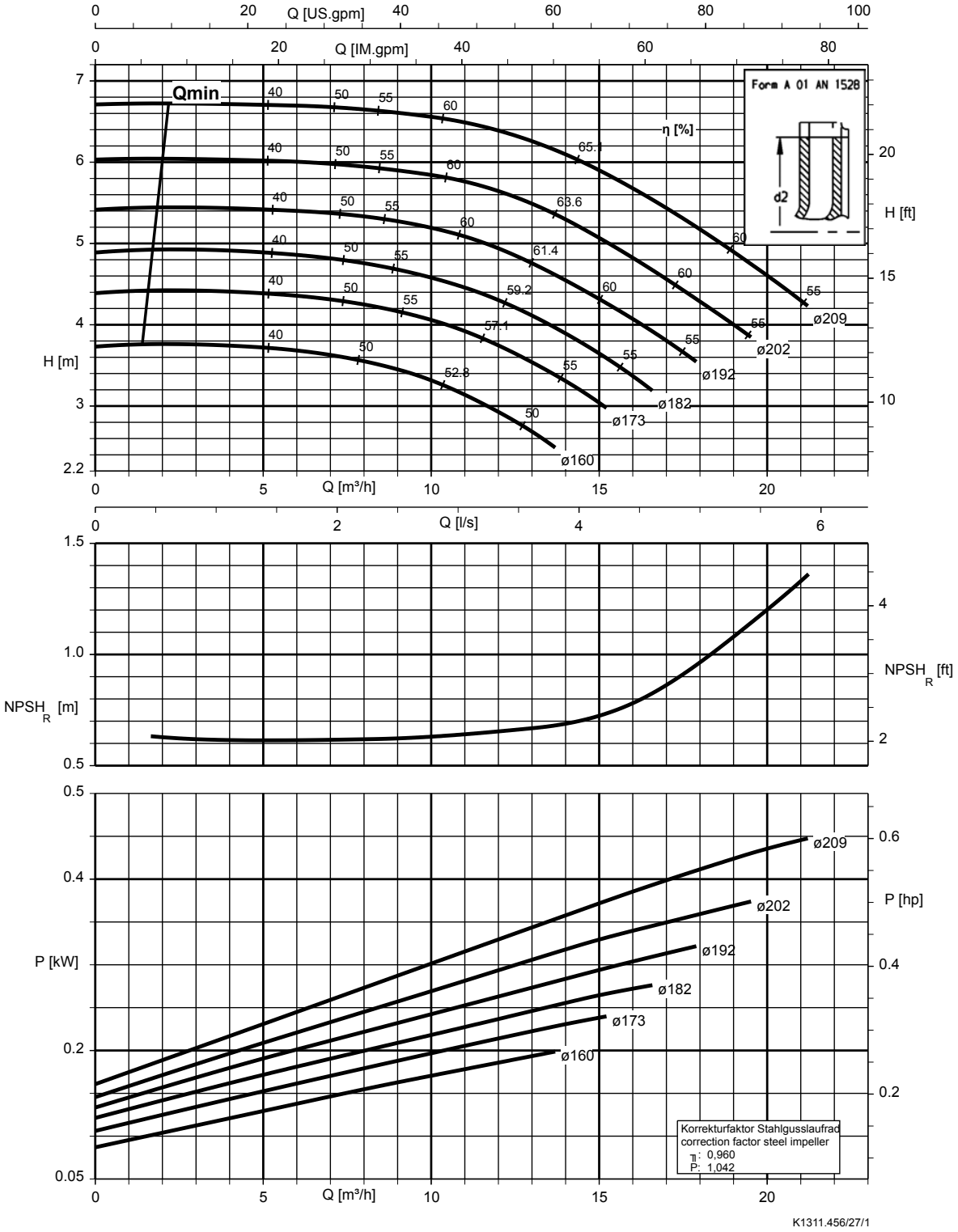
Etanorm 065-040-160, n = 960 rpm

Etanorm SYT, Etabloc



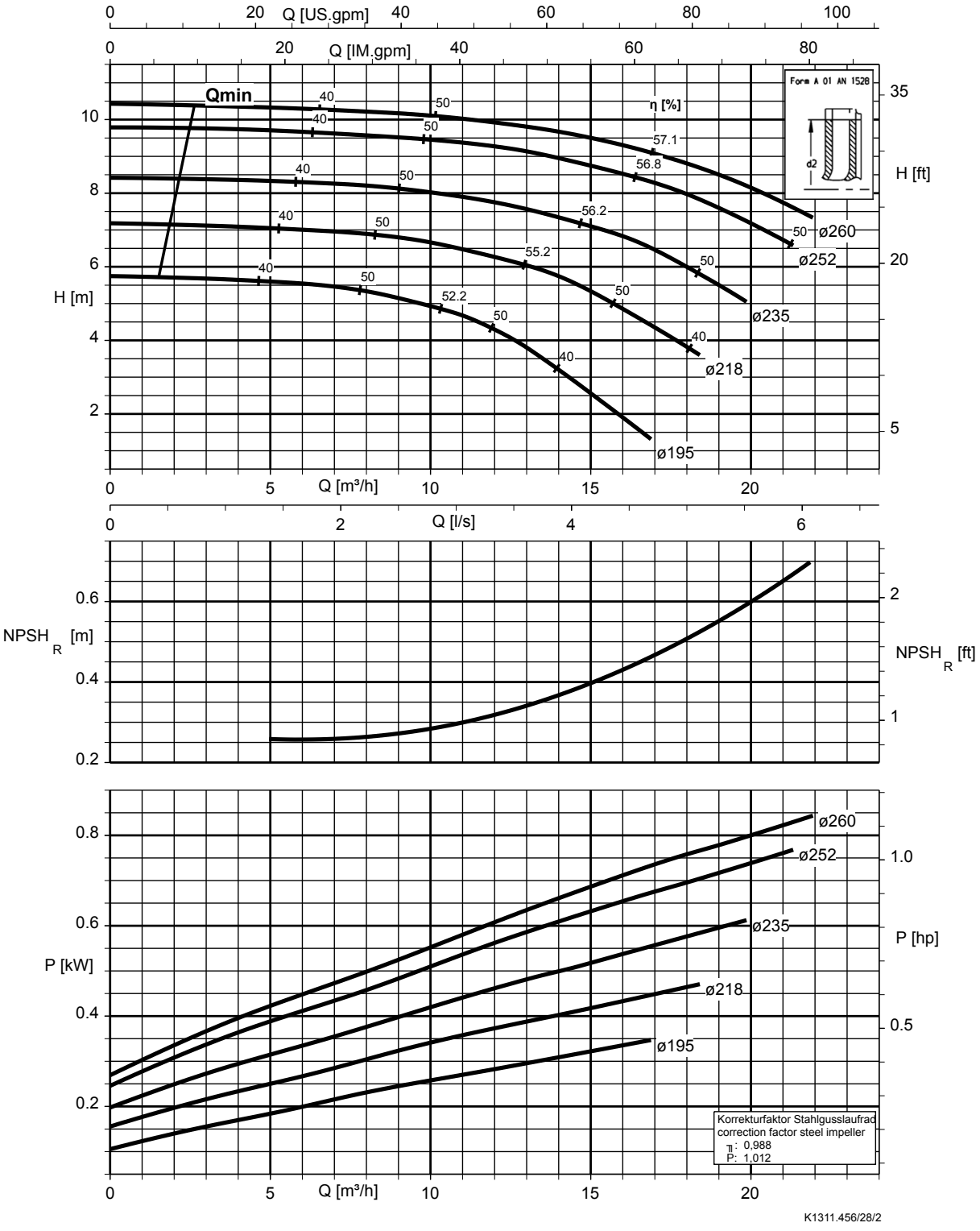
Etanorm 065-040-200, n = 960 rpm

Etanorm SYT, Etabloc



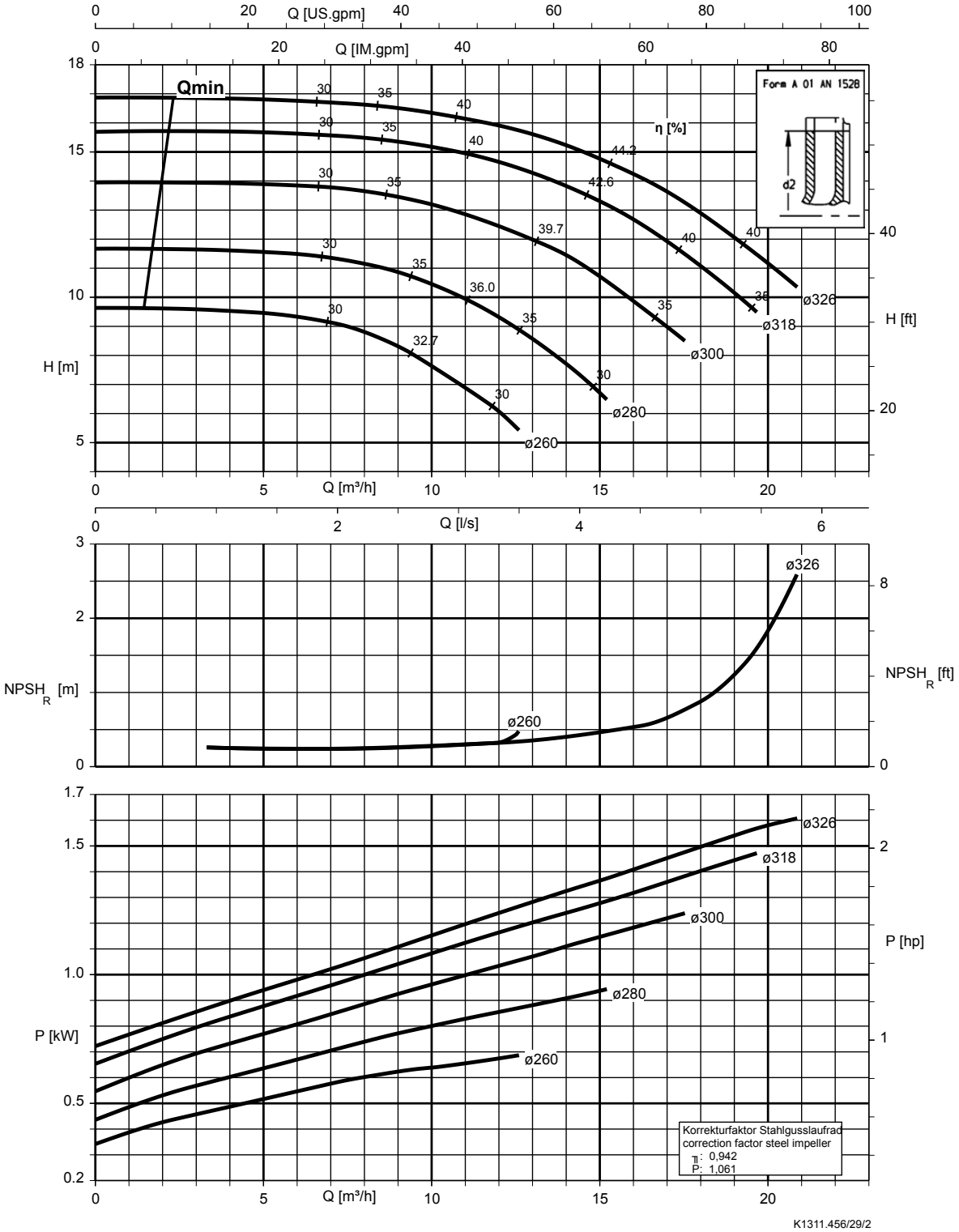
Etanorm 065-040-250, n = 960 rpm

Etanorm SYT, Etabloc



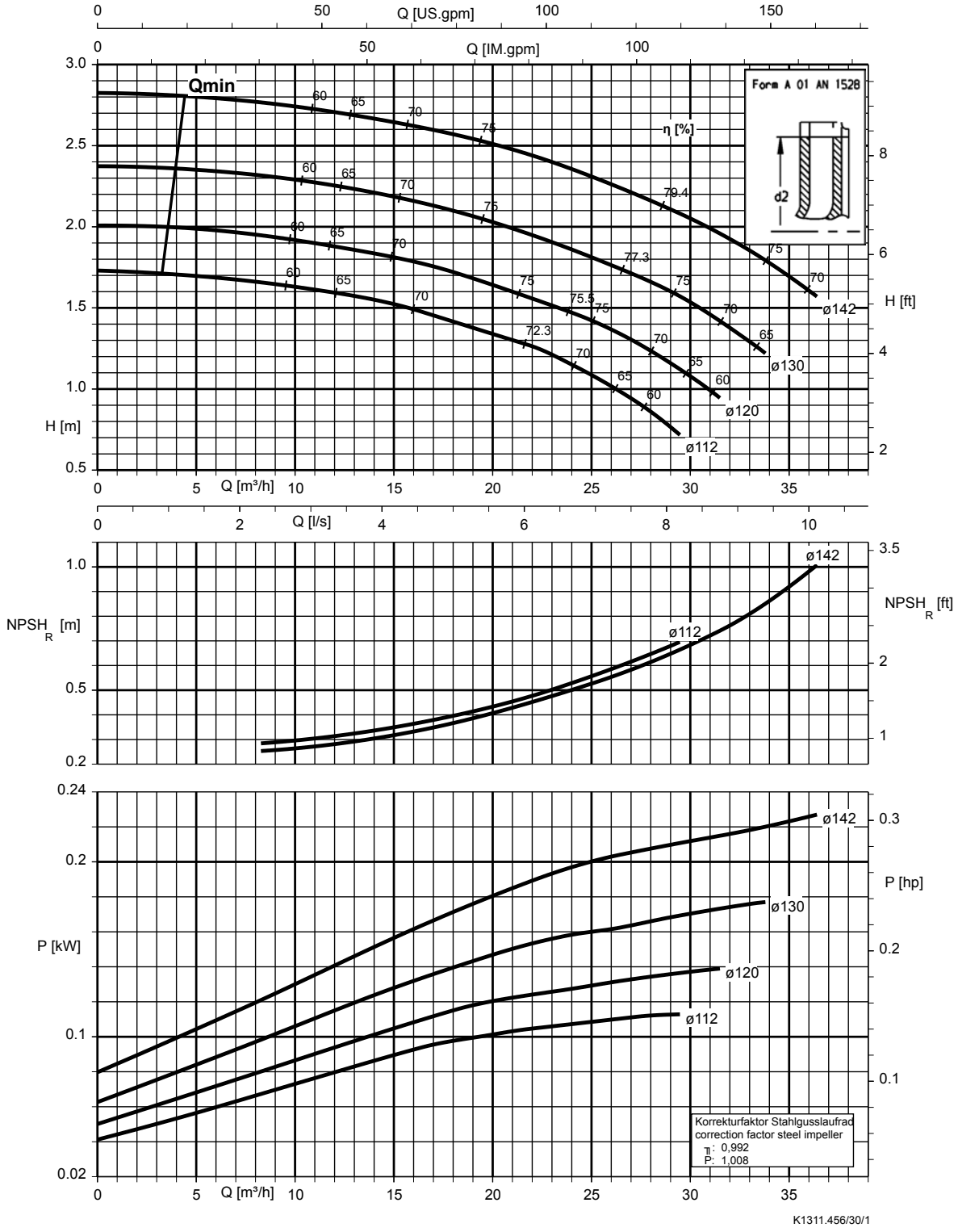
Etanorm 065-040-315, n = 960 rpm

Etanorm SYT, Etabloc



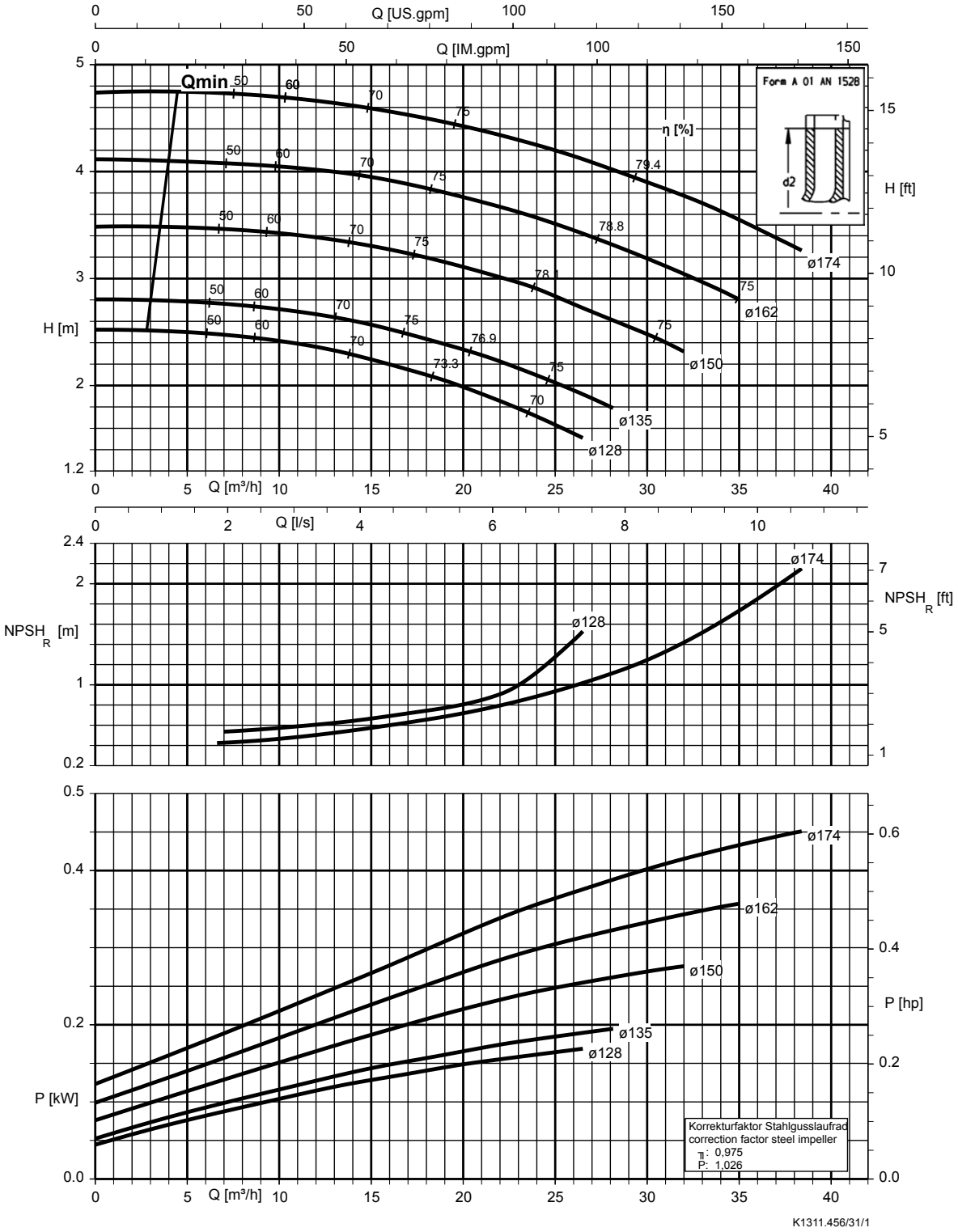
Etanorm 065-050-125, n = 960 rpm

Etabloc



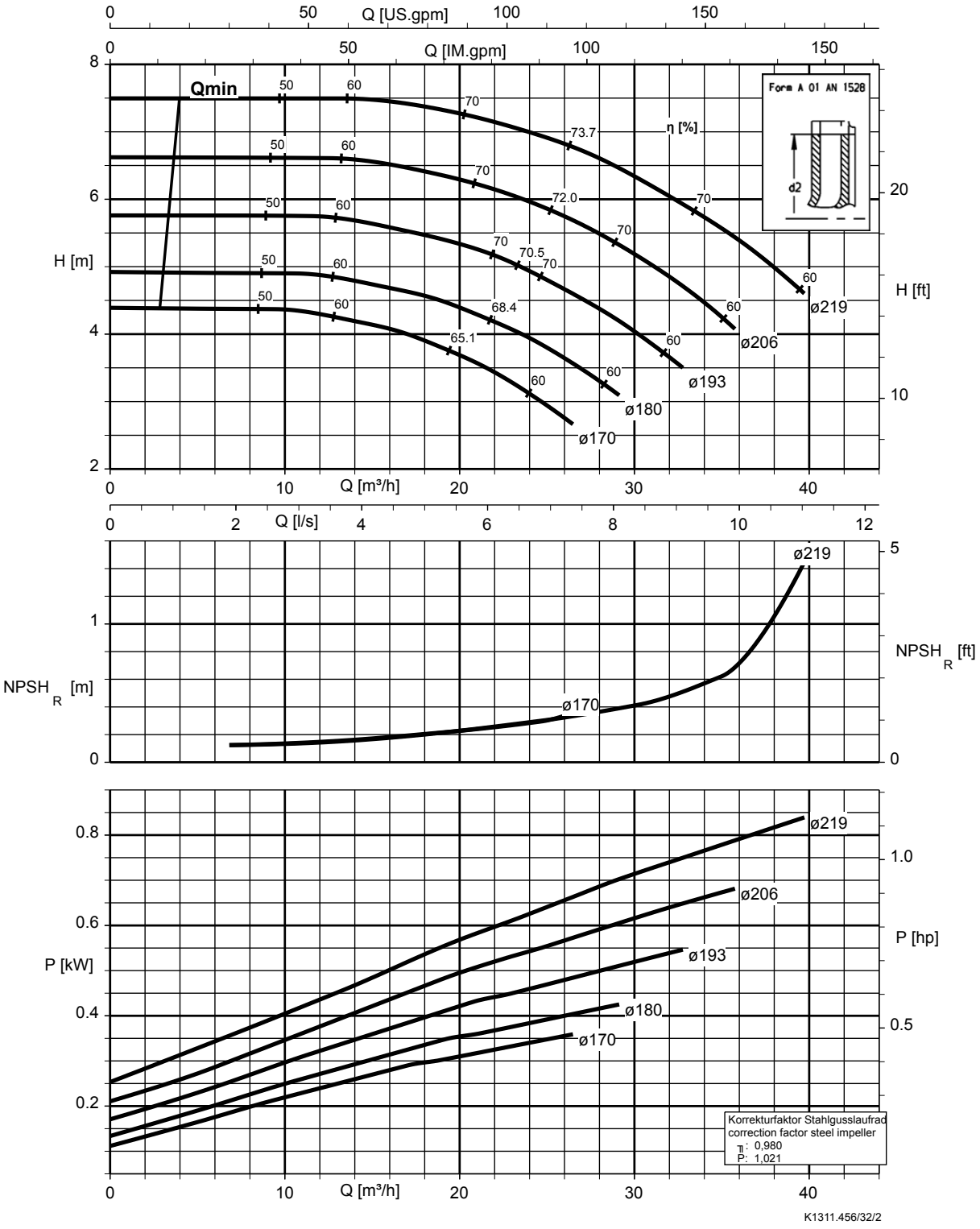
Etanorm 065-050-160, n = 960 rpm

Etanorm SYT, Etabloc



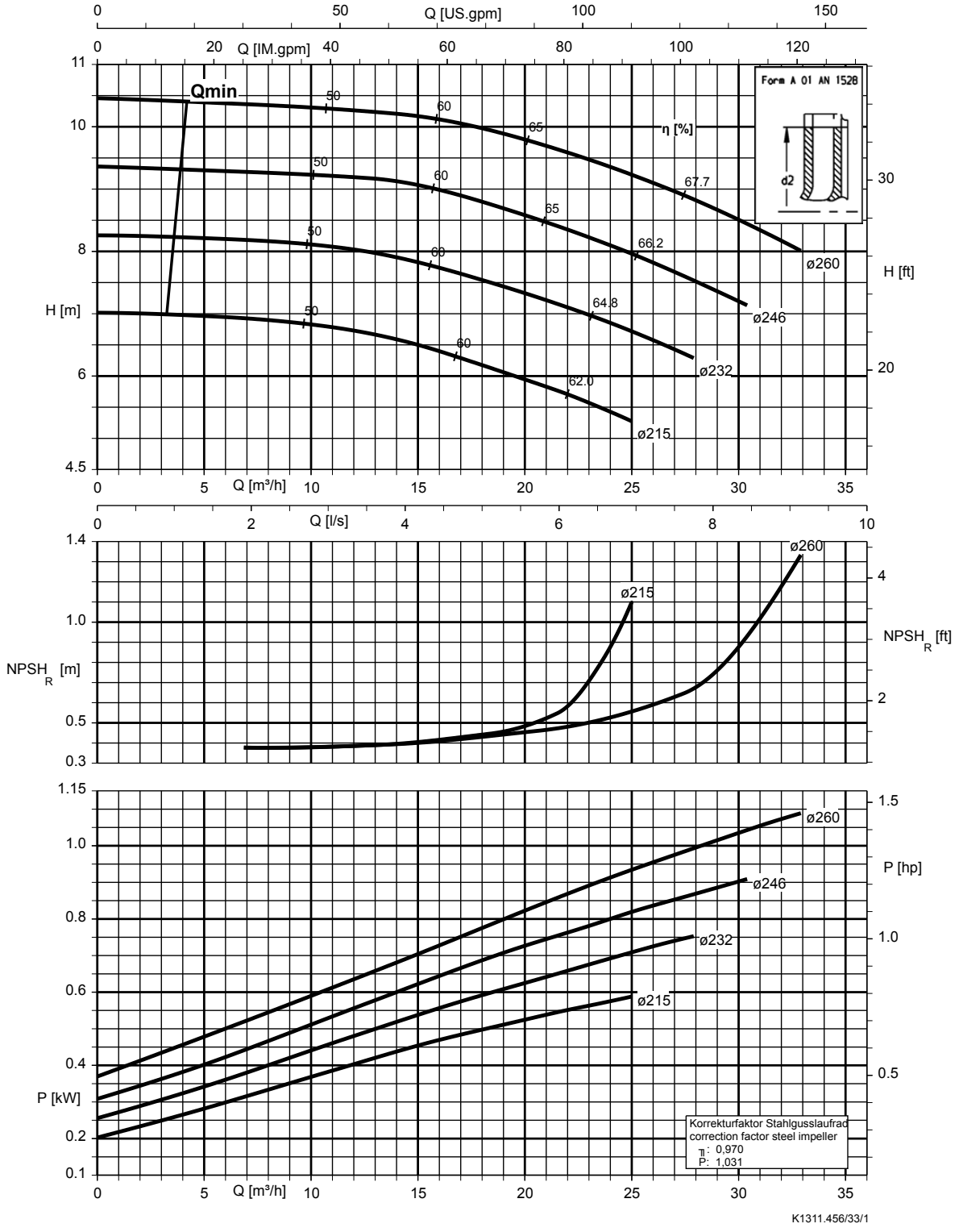
Etanorm 065-050-200, n = 960 rpm

Etanorm SYT, Etabloc



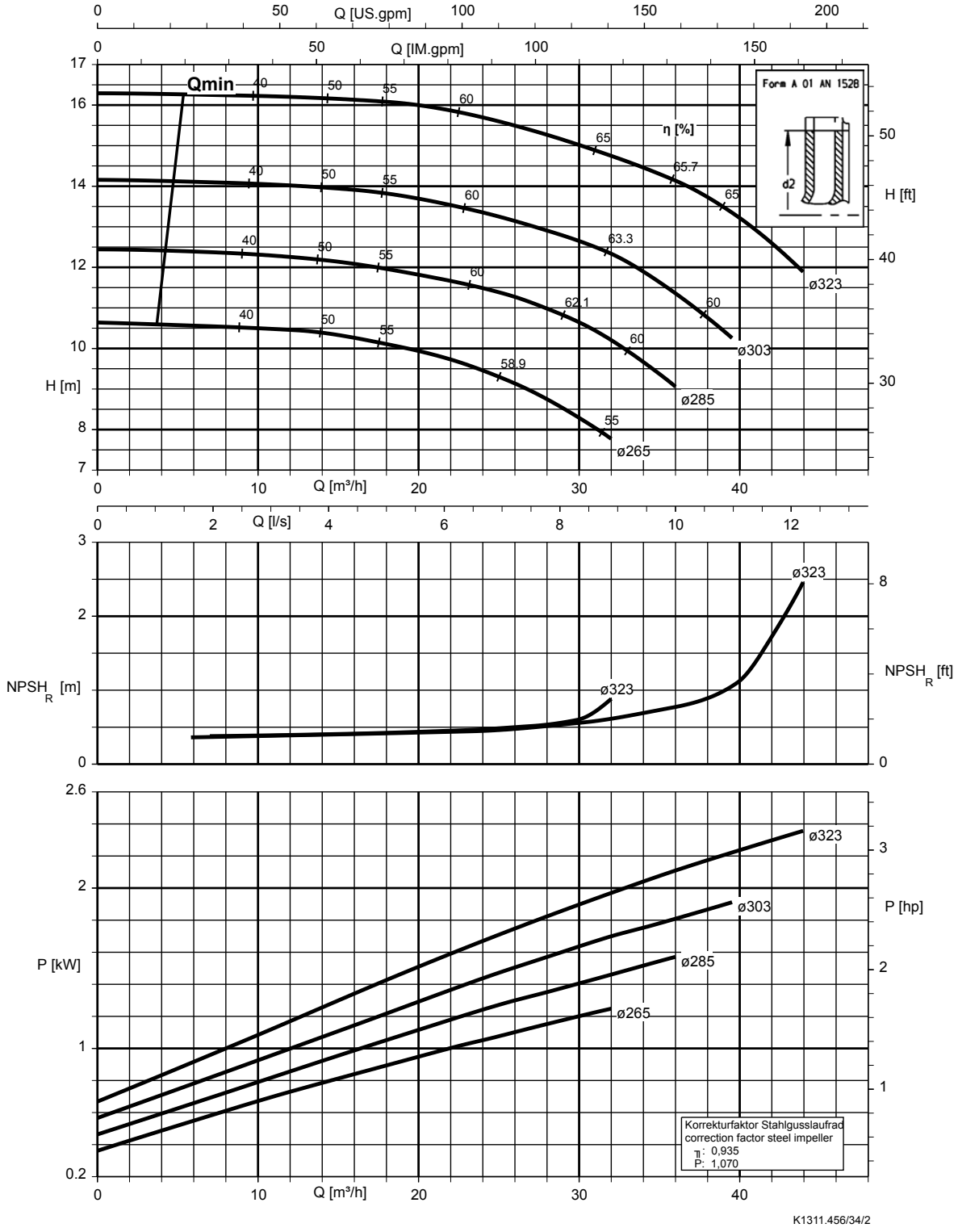
Etanorm 065-050-250, n = 960 rpm

Etanorm SYT, Etabloc



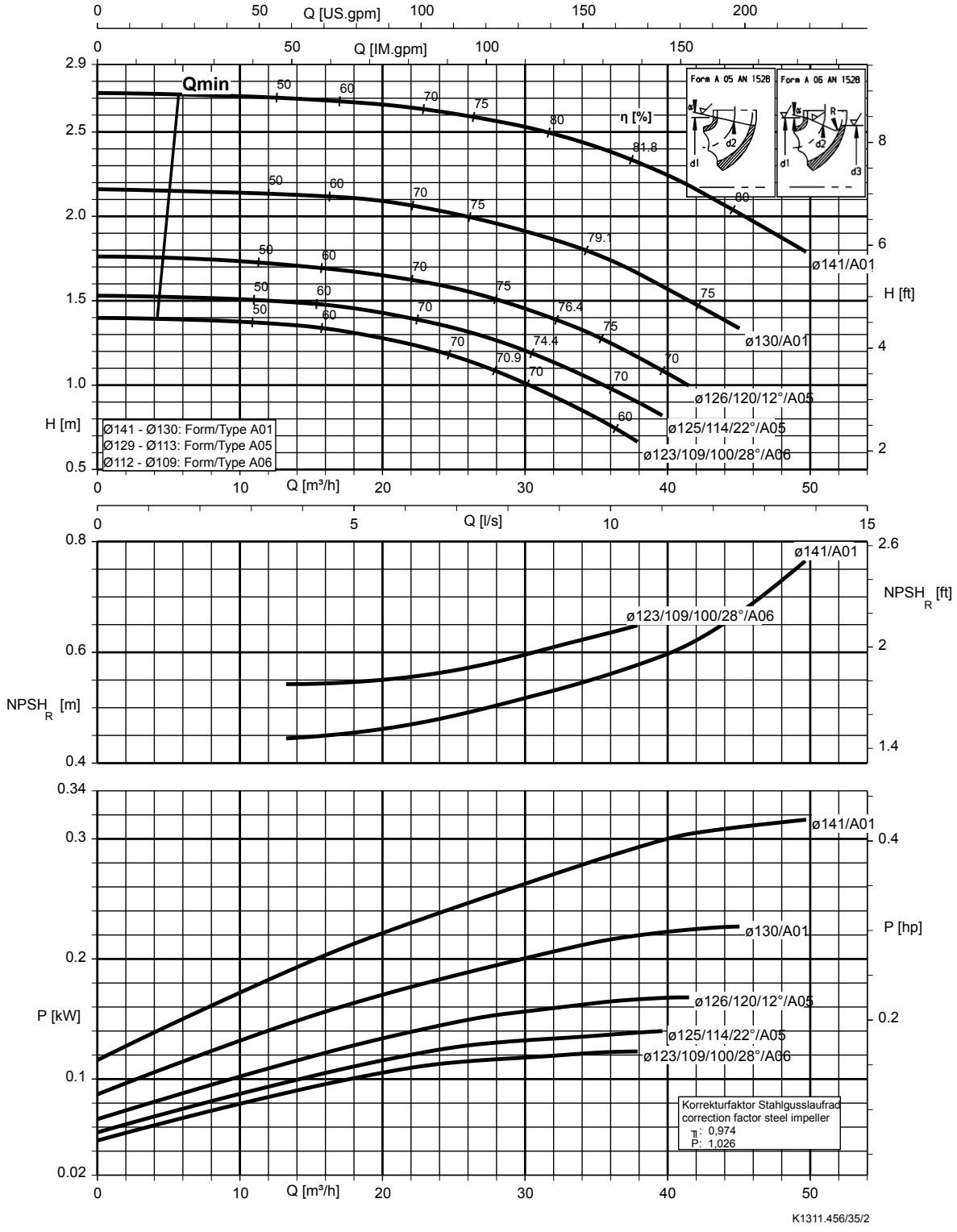
Etanorm 065-050-315, n = 960 rpm

Etanorm SYT, Etabloc



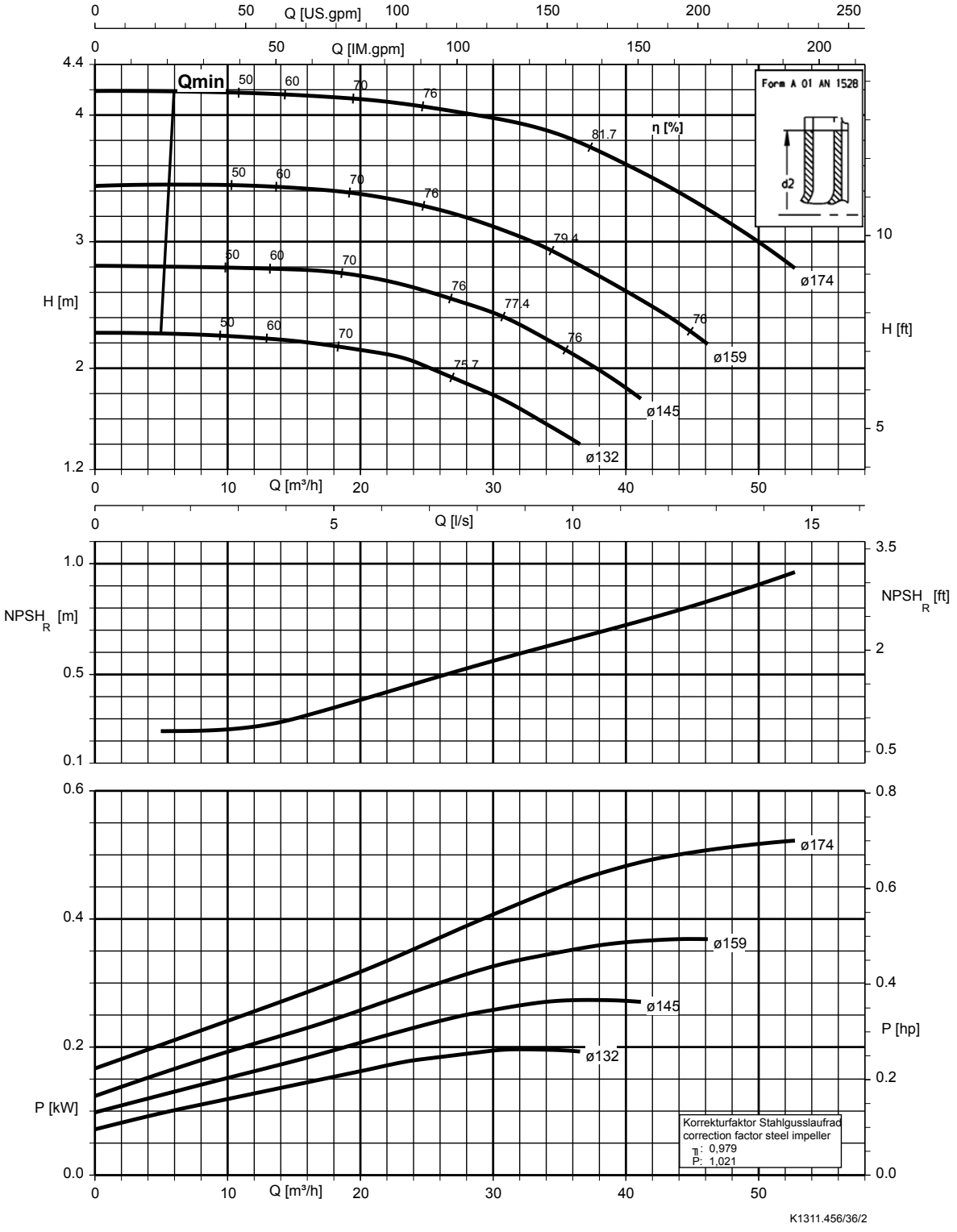
Etanorm 080-065-125, n = 960 rpm

Etabloc



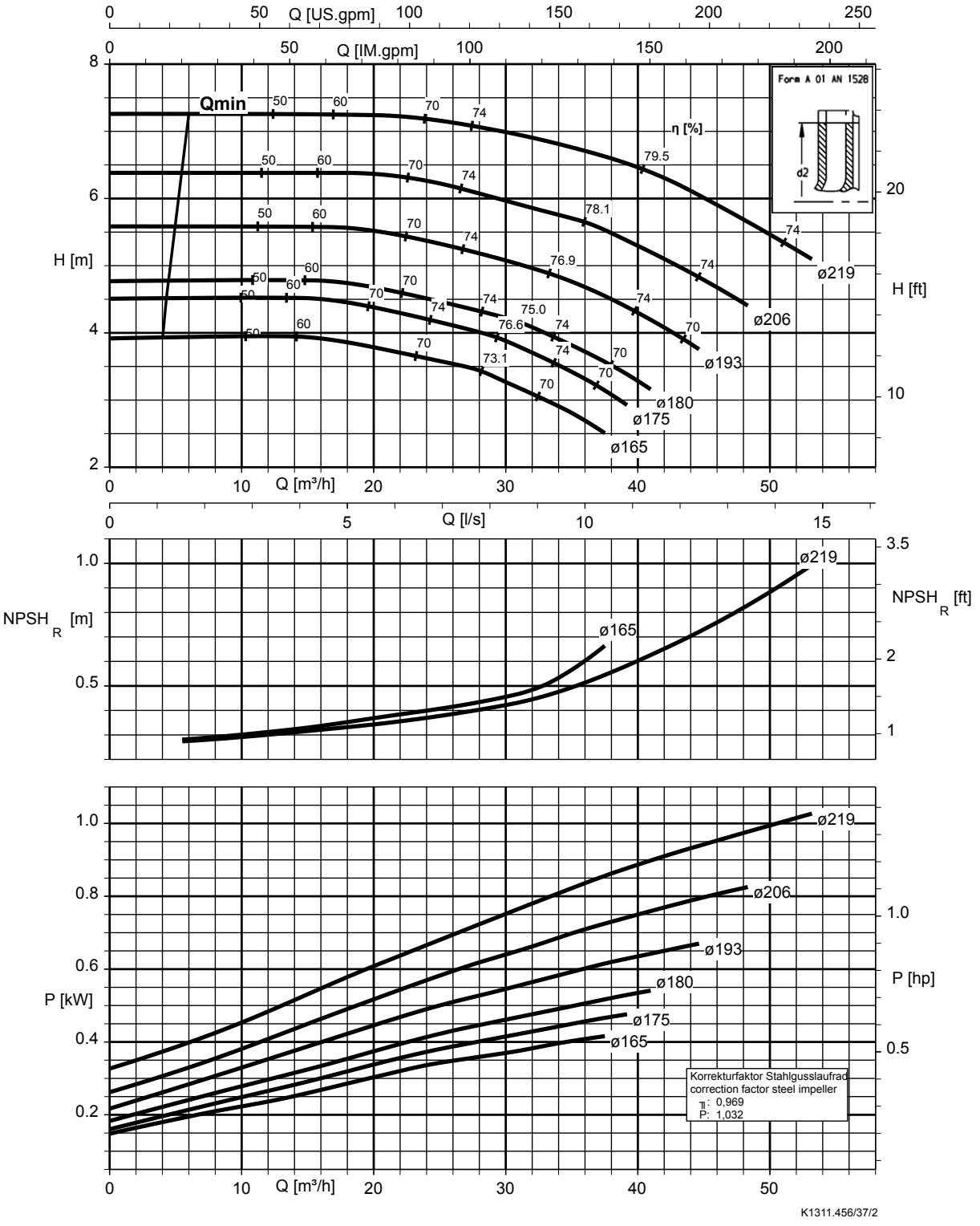
Etanorm 080-065-160, n = 960 rpm

Etanorm SYT, Etabloc



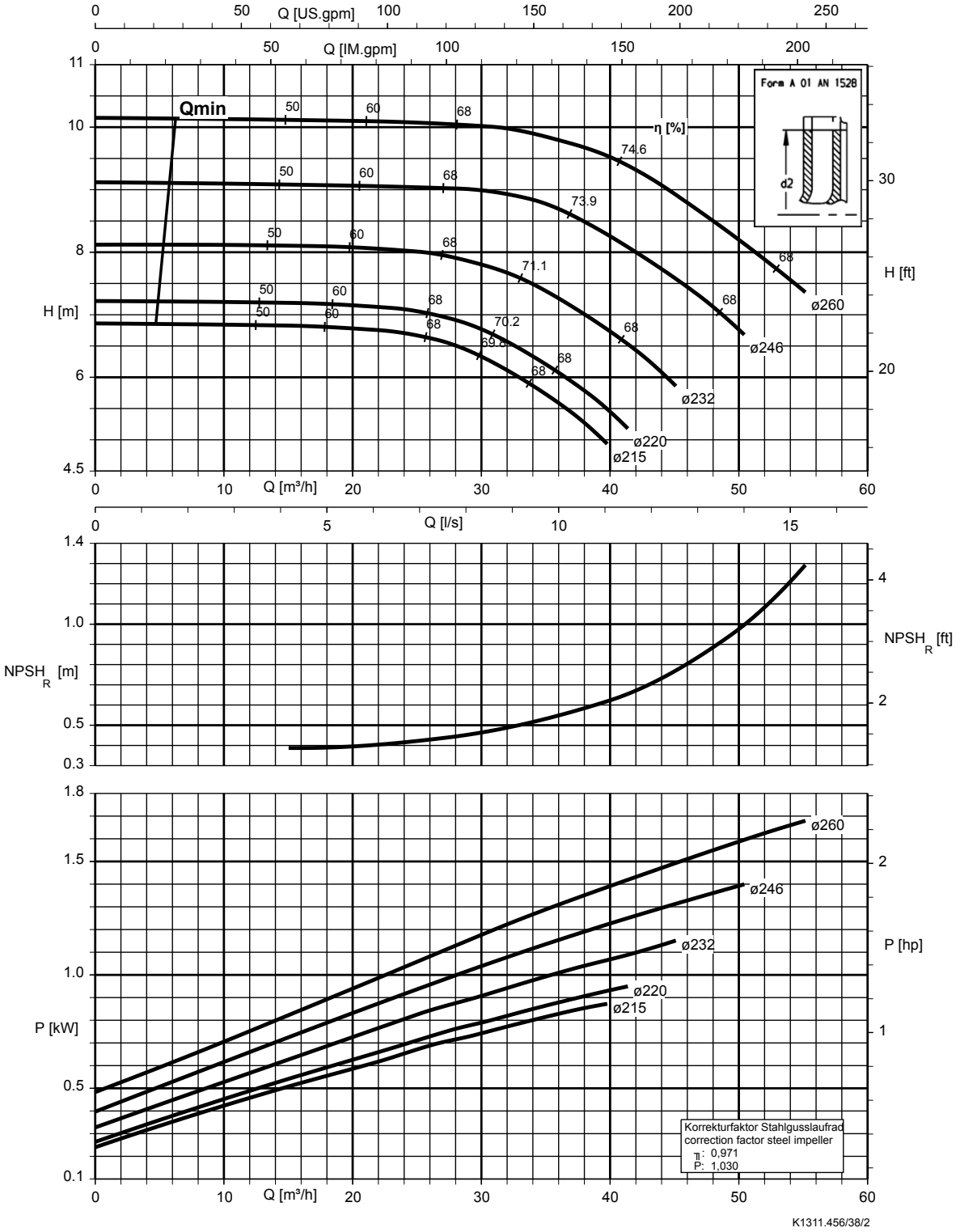
Etanorm 080-065-200, n = 960 rpm

Etanorm SYT, Etabloc



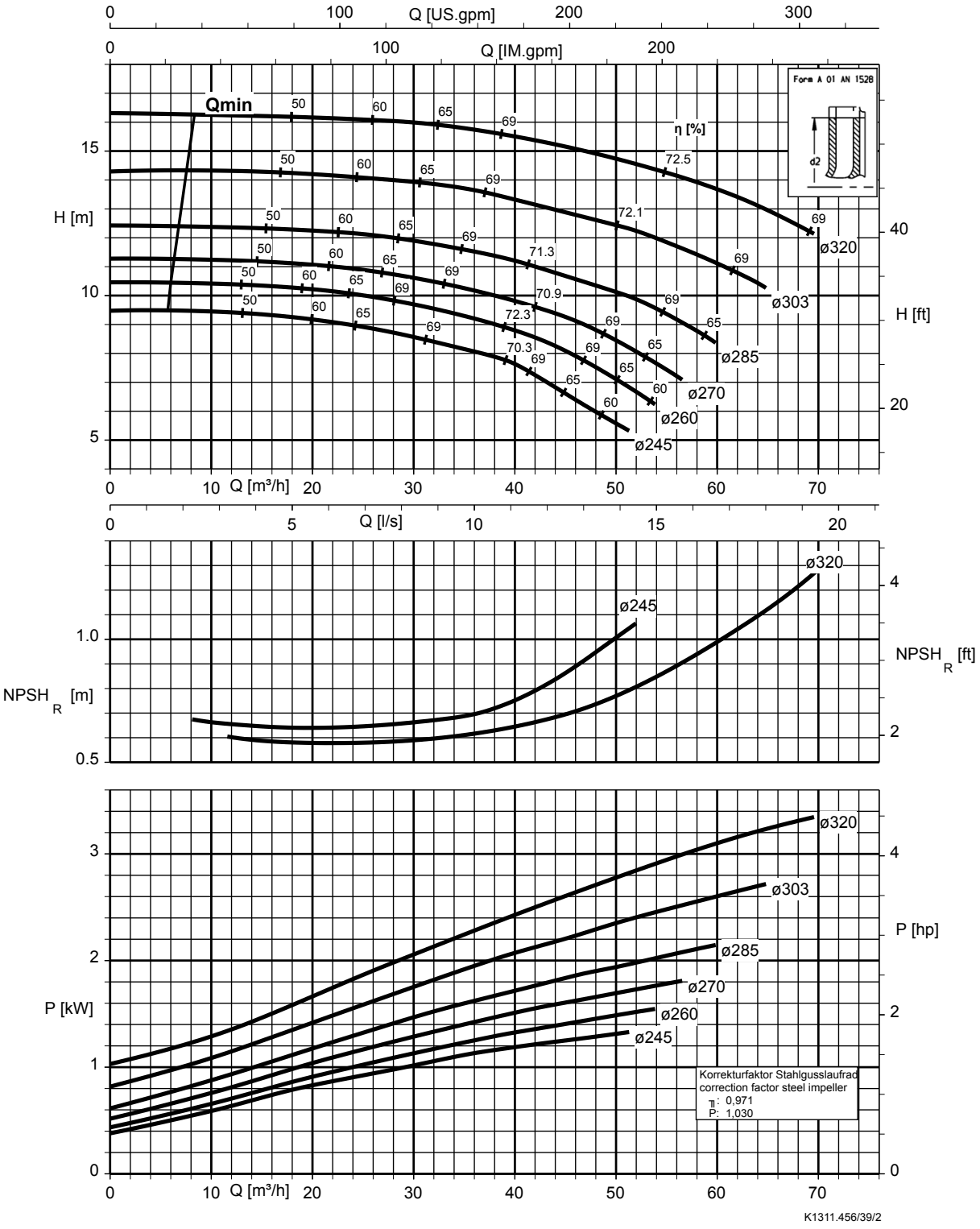
Etanorm 080-065-250, n = 960 rpm

Etanorm SYT, Etabloc



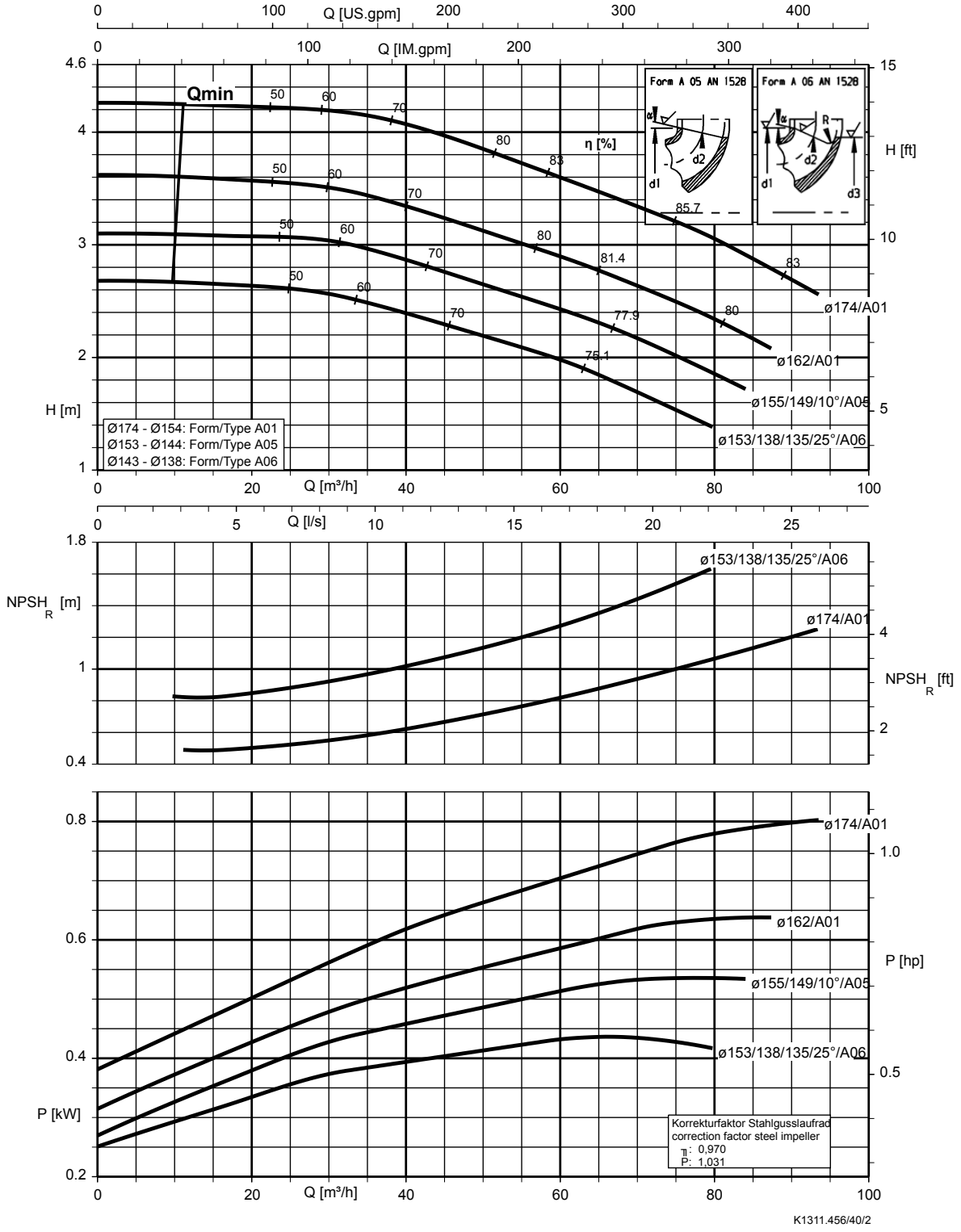
Etanorm 080-065-315, n = 960 rpm

Etanorm SYT, Etabloc



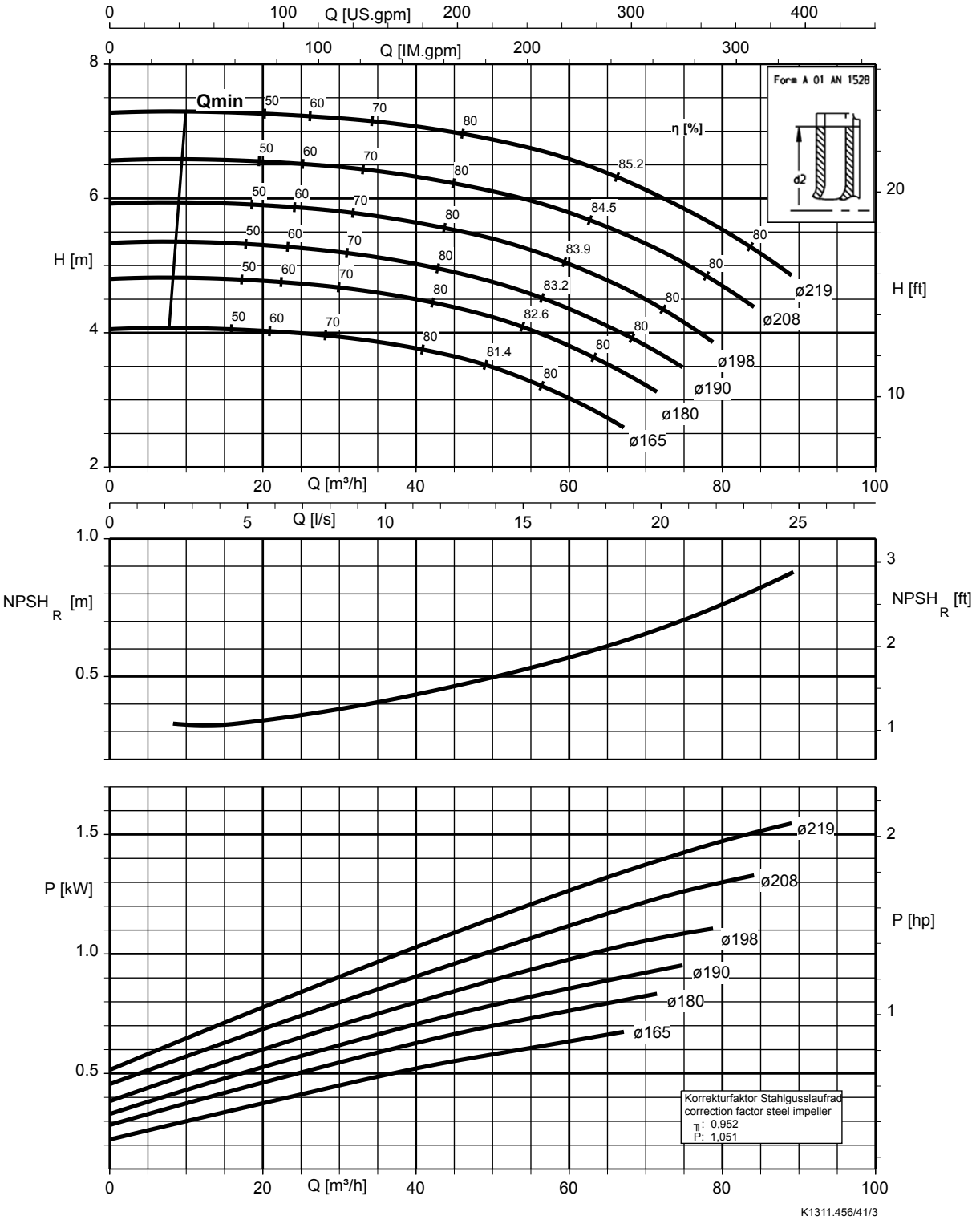
Etanorm 100-080-160, n = 960 rpm

Etanorm SYT, Etabloc



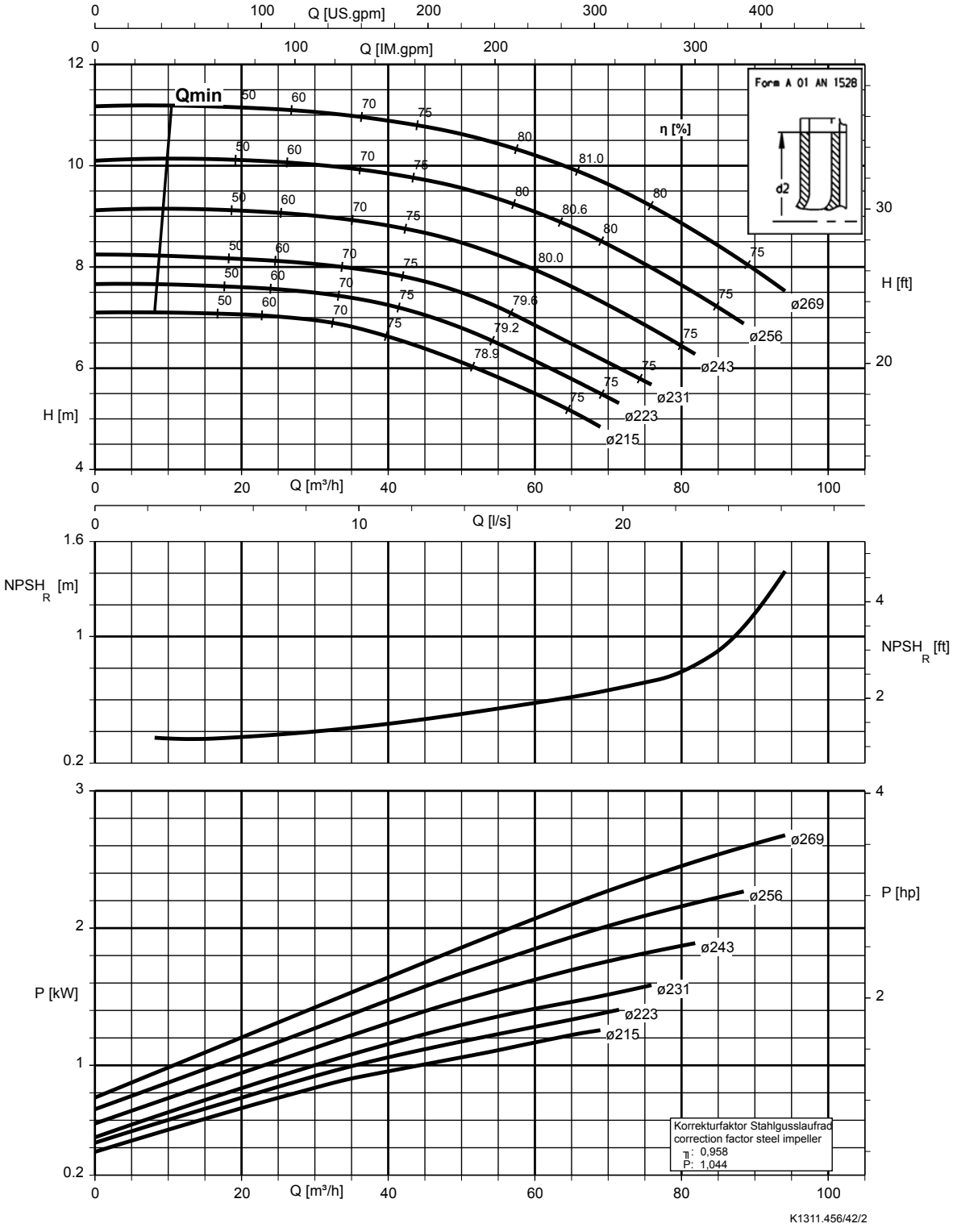
Etanorm 100-080-200, n = 960 rpm

Etanorm SYT, Etabloc



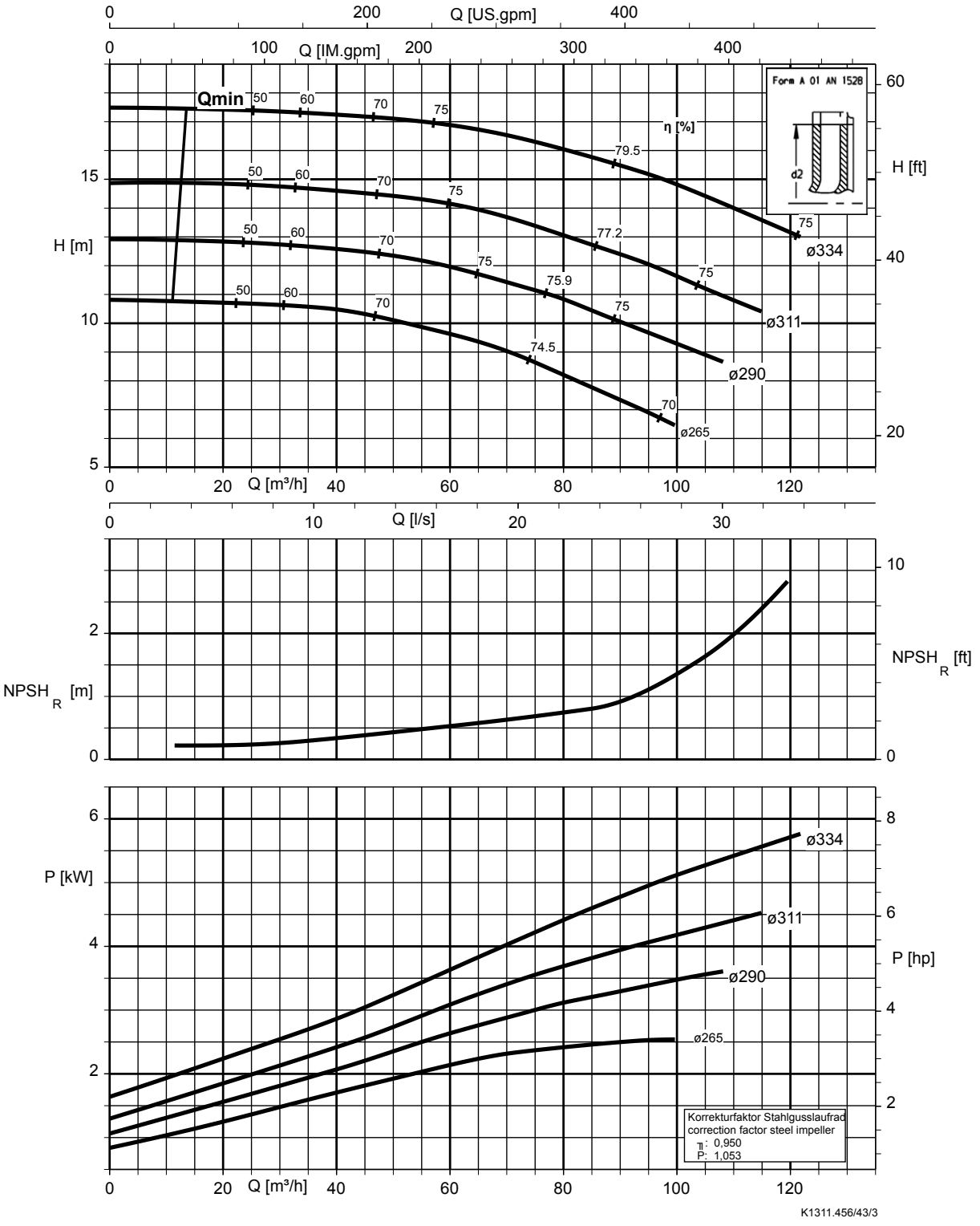
Etanorm 100-080-250, n = 960 rpm

Etanorm SYT, Etabloc

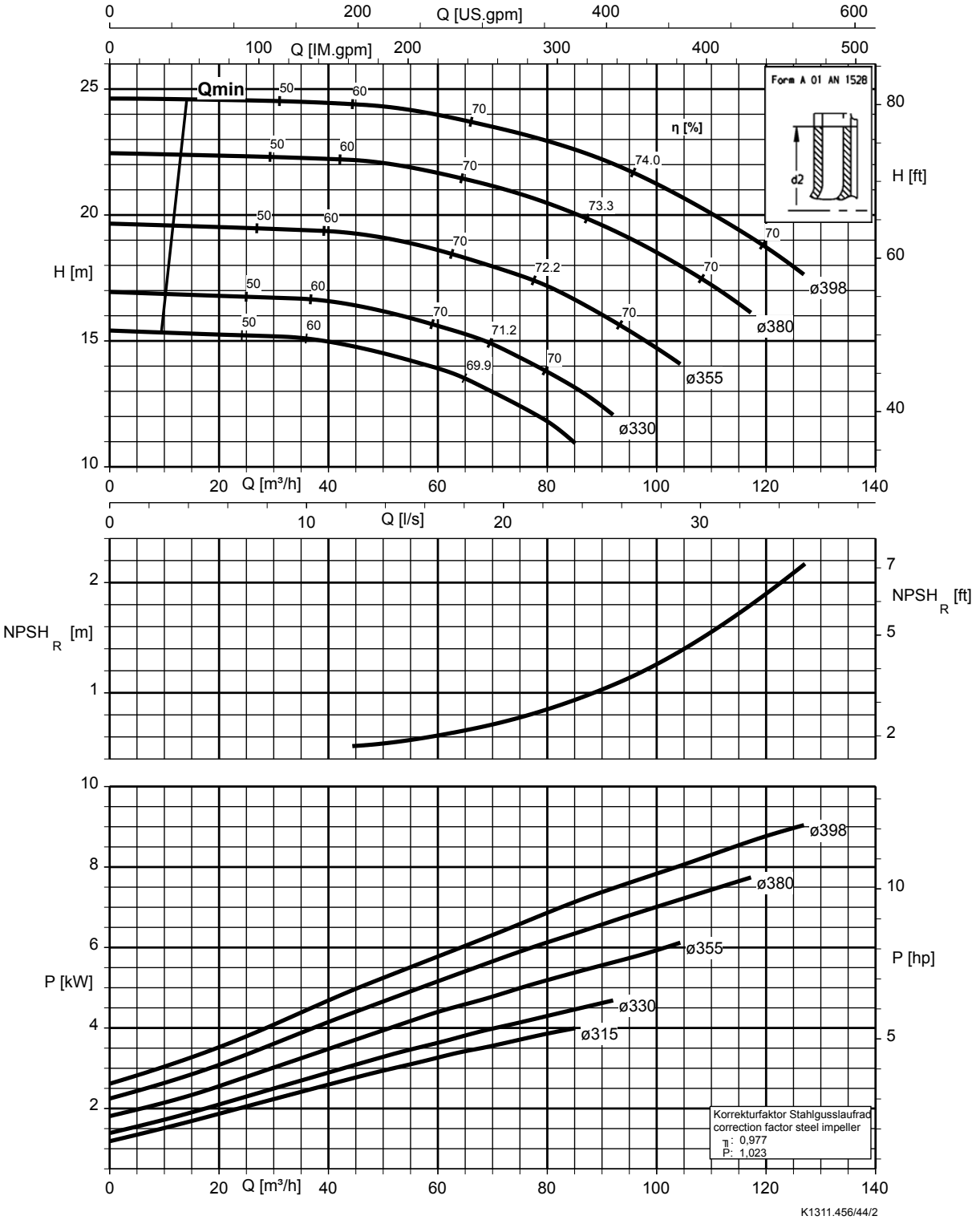


Etanorm 100-080-315, n = 960 rpm

Etanorm SYT, Etabloc

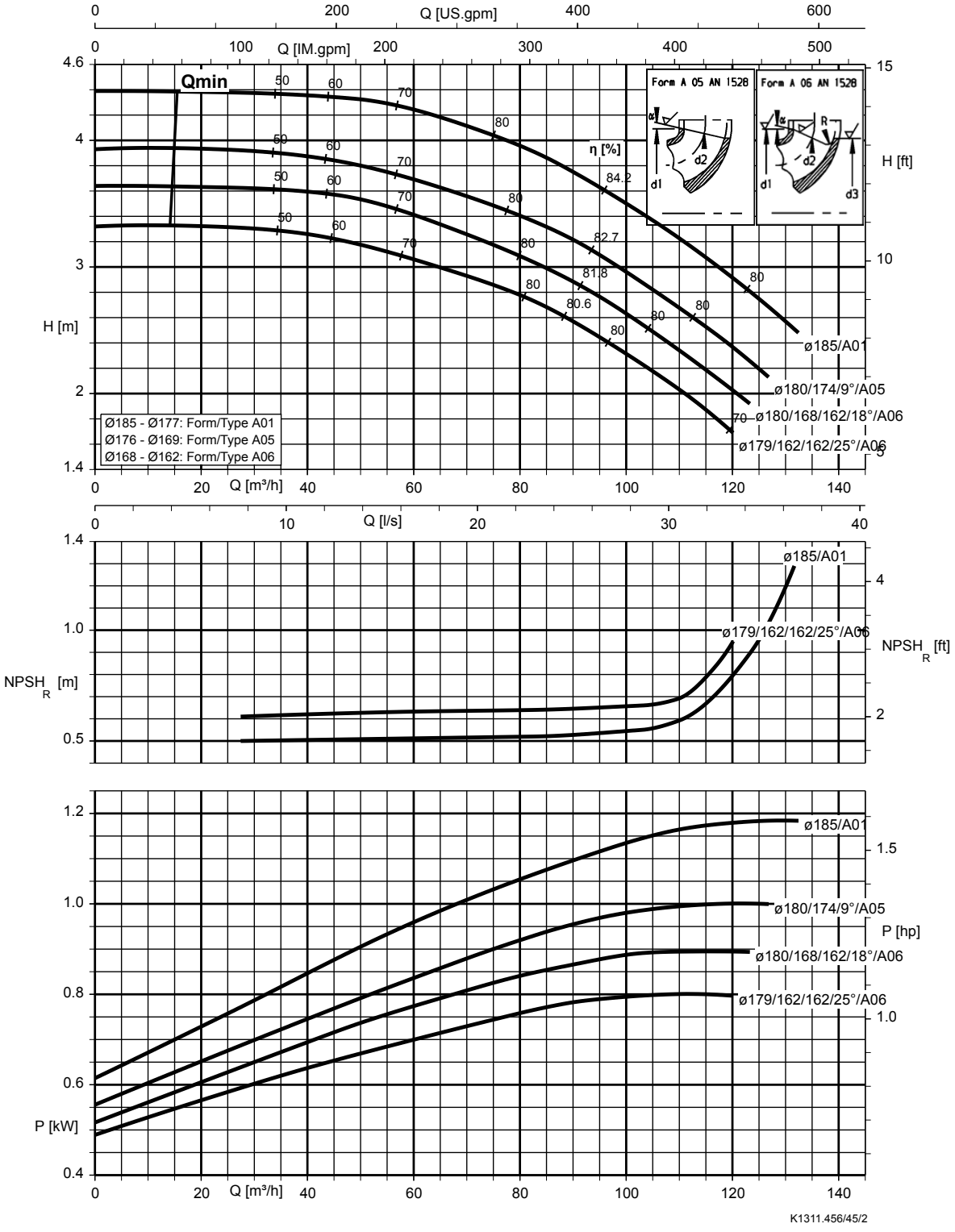


Etanorm 100-080-400, n = 960 rpm



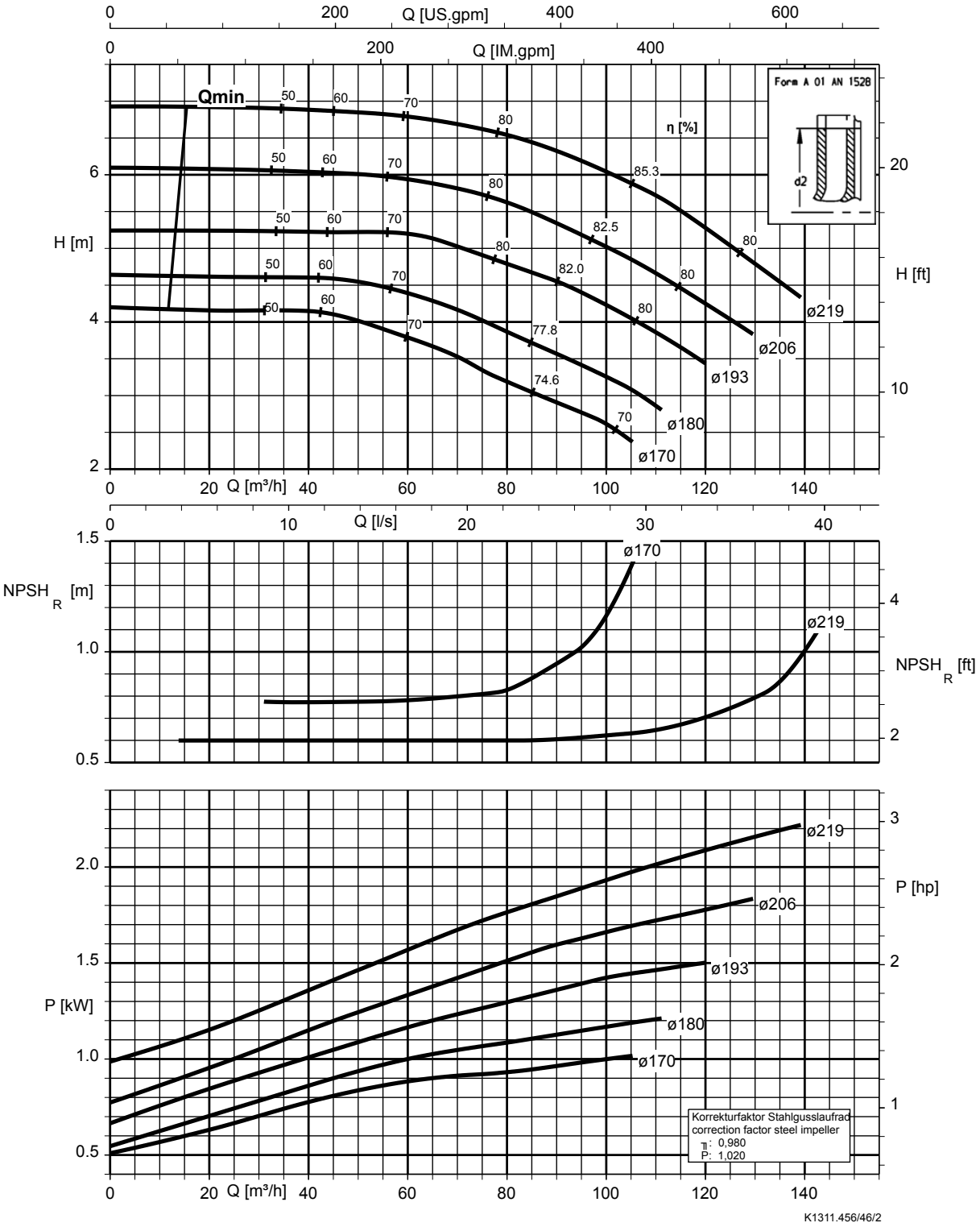
Etanorm 125-100-160, n = 960 rpm

Etanorm SYT, Etabloc



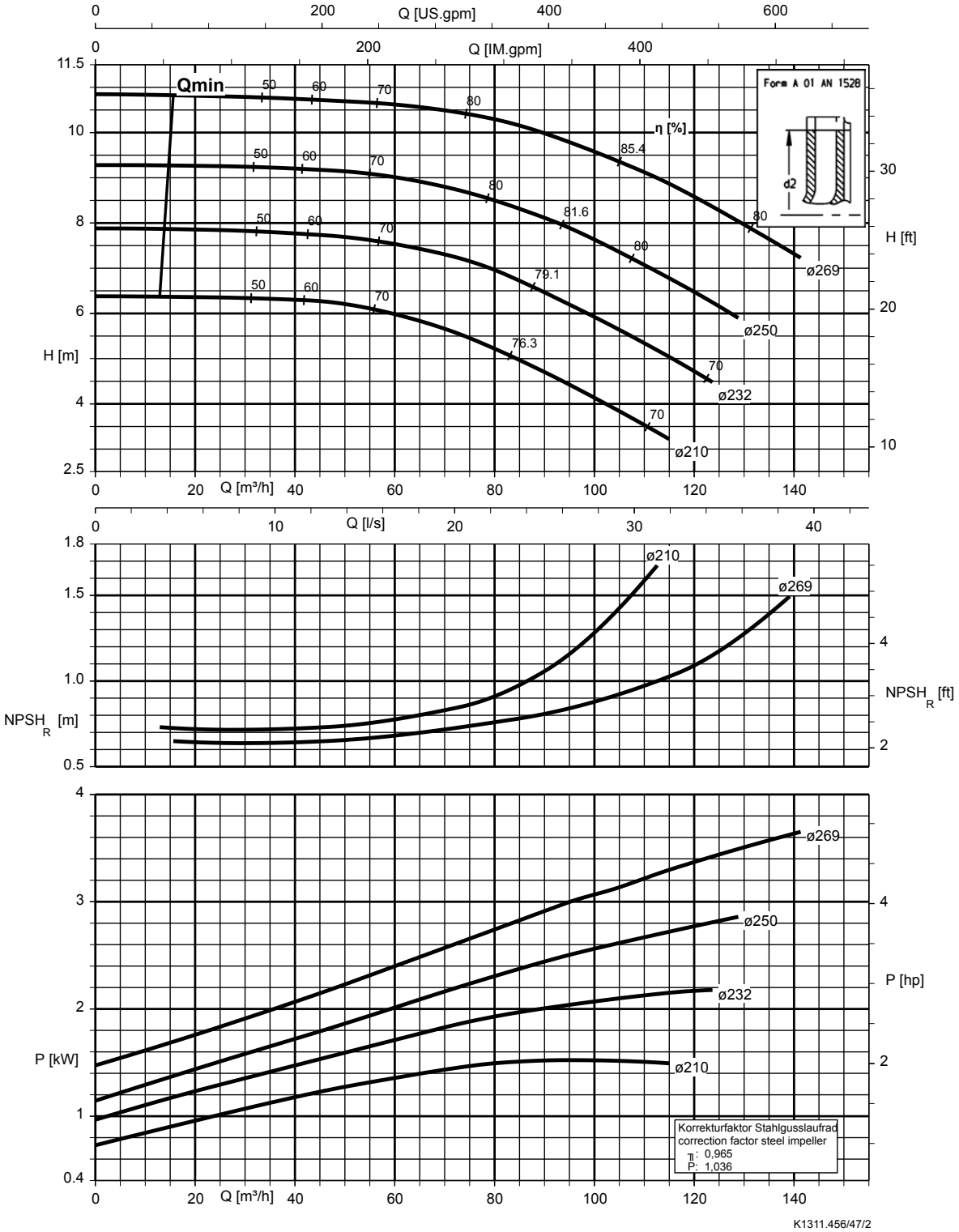
Etanorm 125-100-200, n = 960 rpm

Etanorm SYT, Etabloc



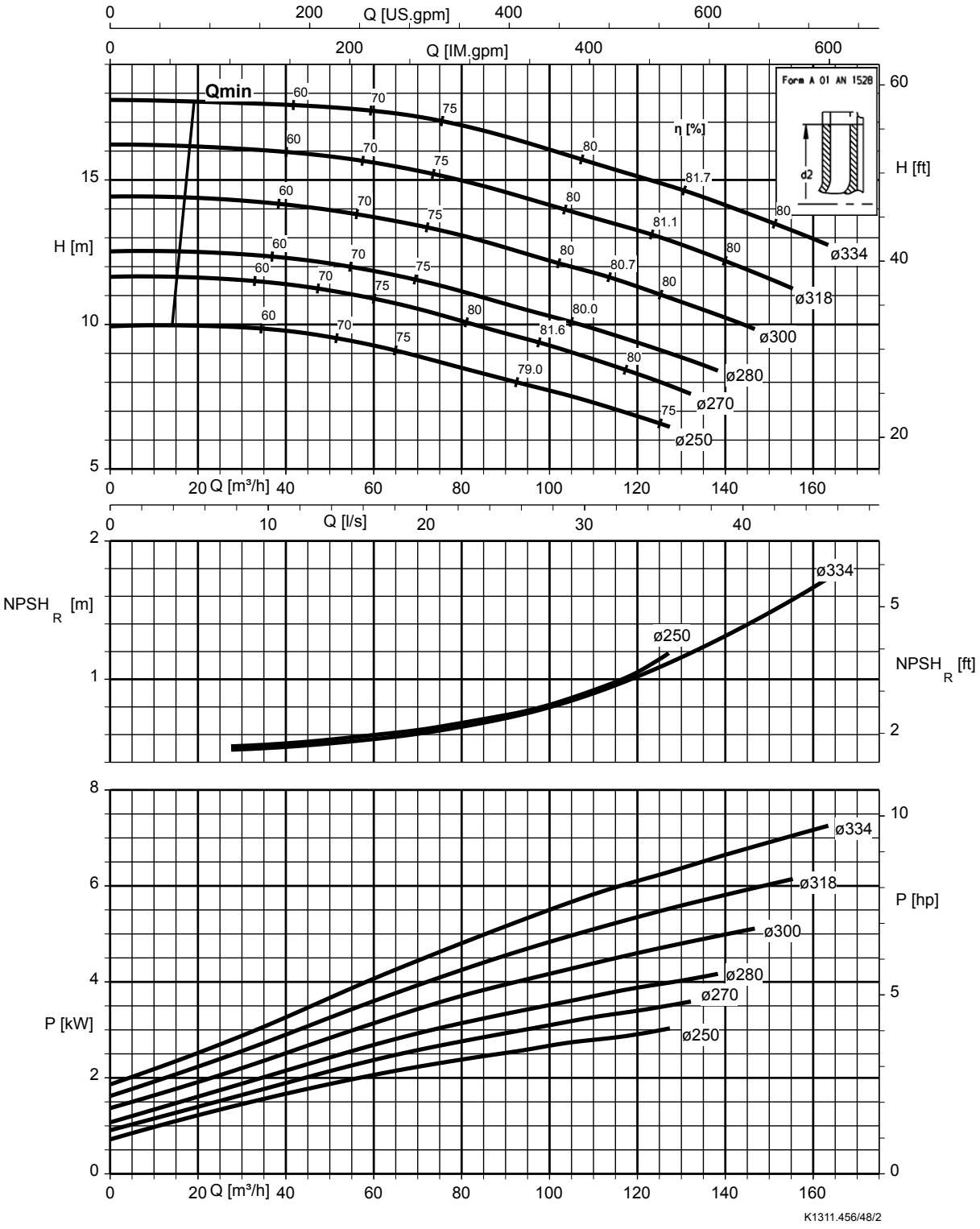
Etanorm 125-100-250, n = 960 rpm

Etanorm SYT, Etabloc

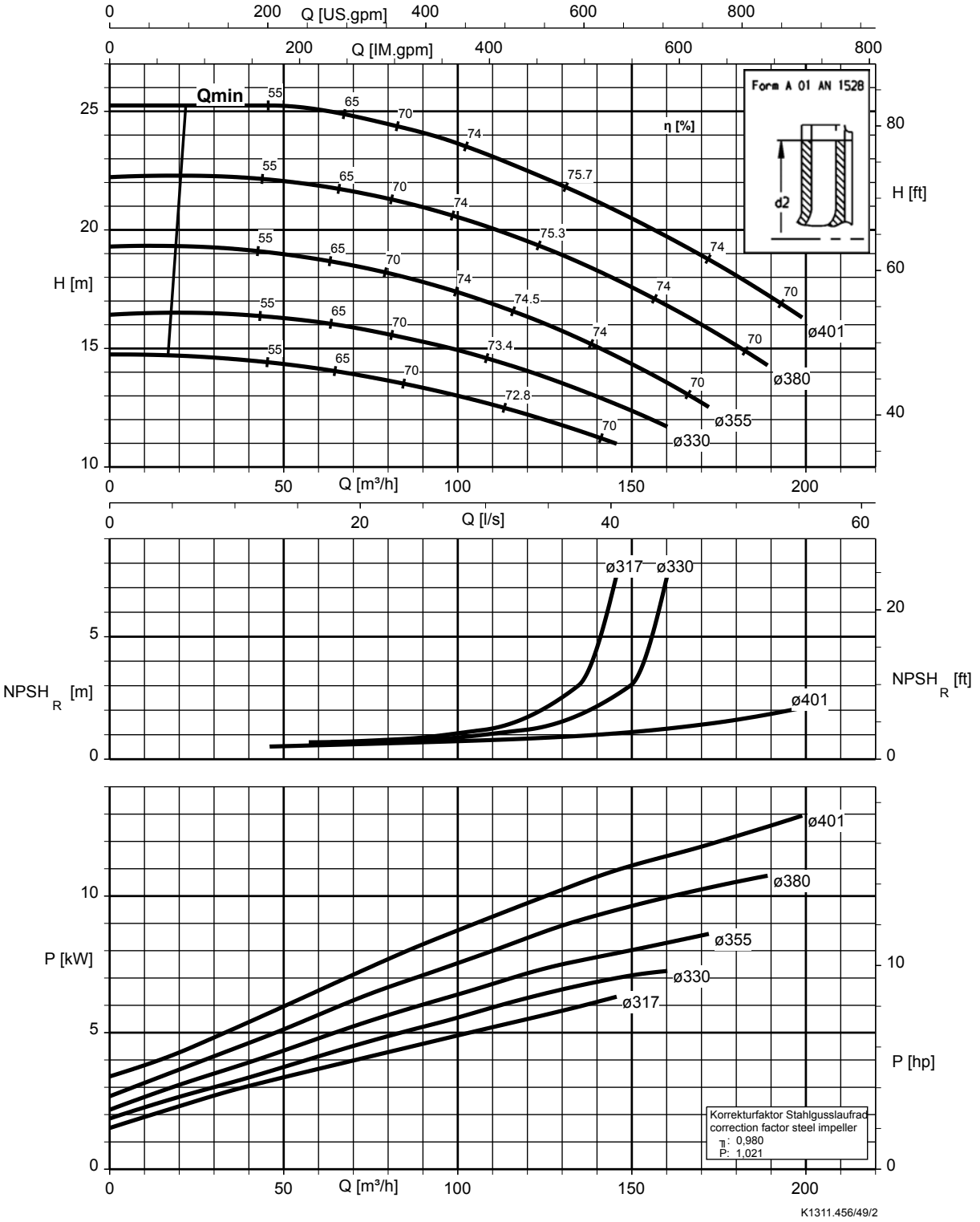


Etanorm 125-100-315, n = 960 rpm

Etanorm SYT, Etabloc

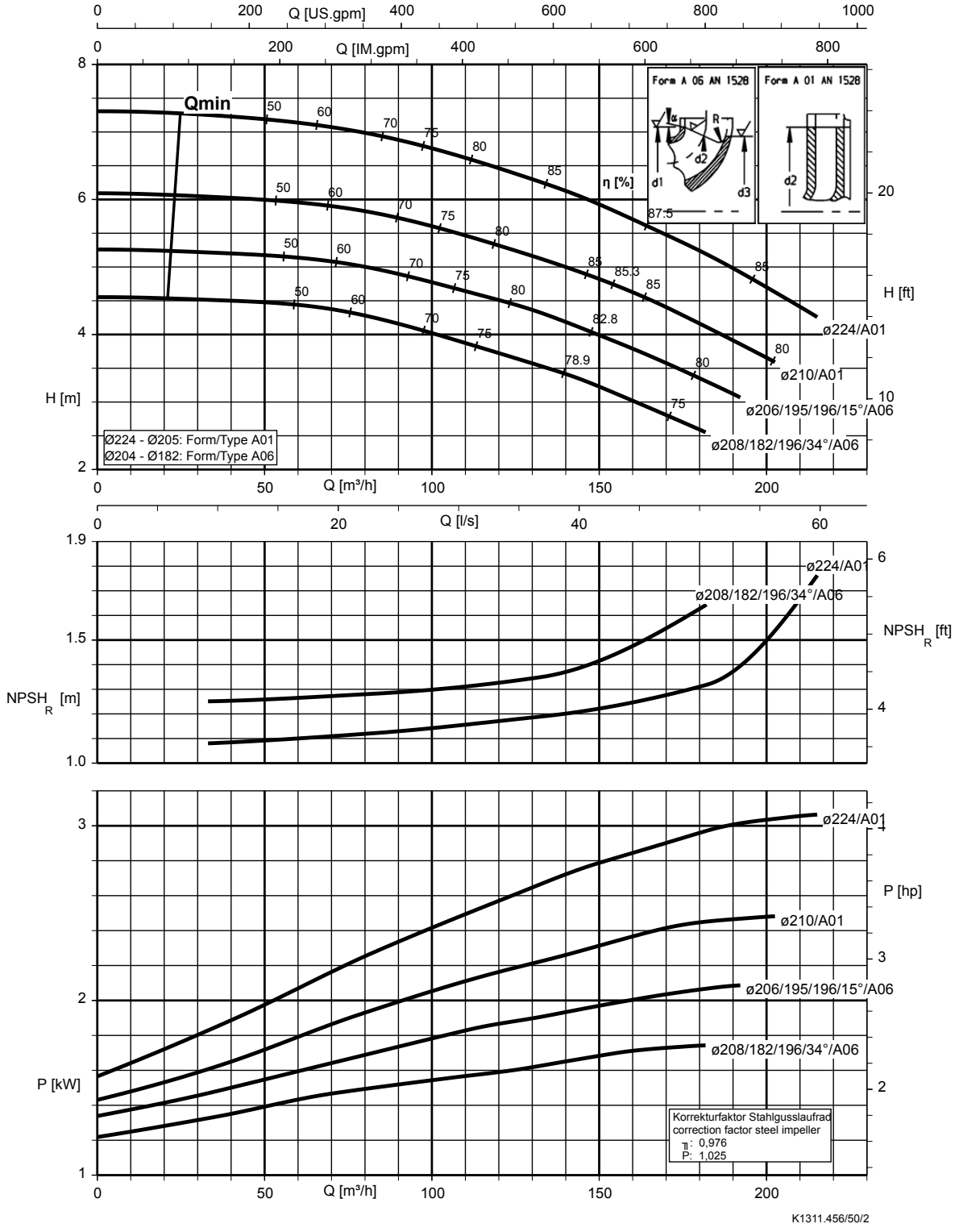


Etanorm 125-100-400, n = 960 rpm



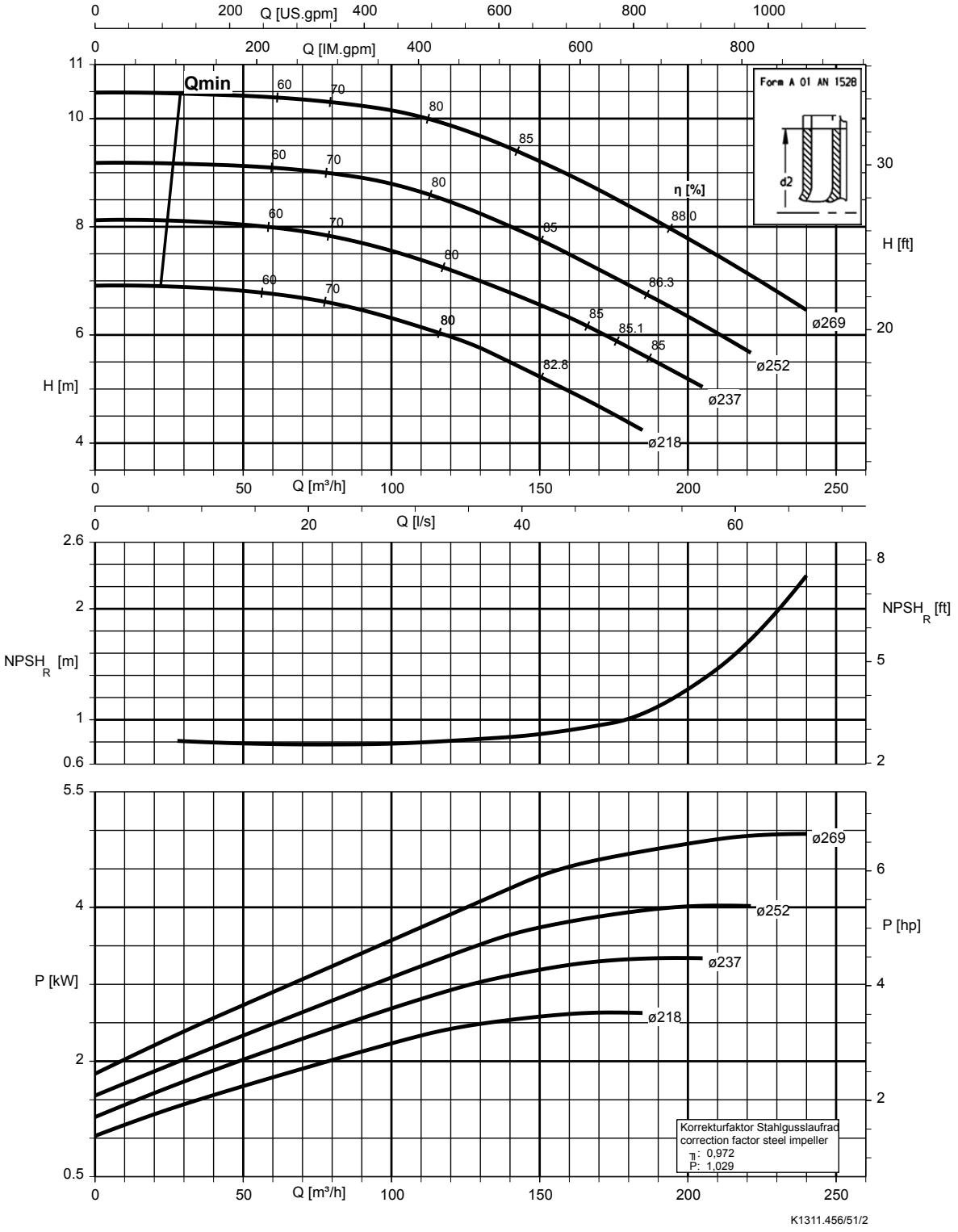
Etanorm 150-125-200, n = 960 rpm

Etanorm SYT, Etabloc



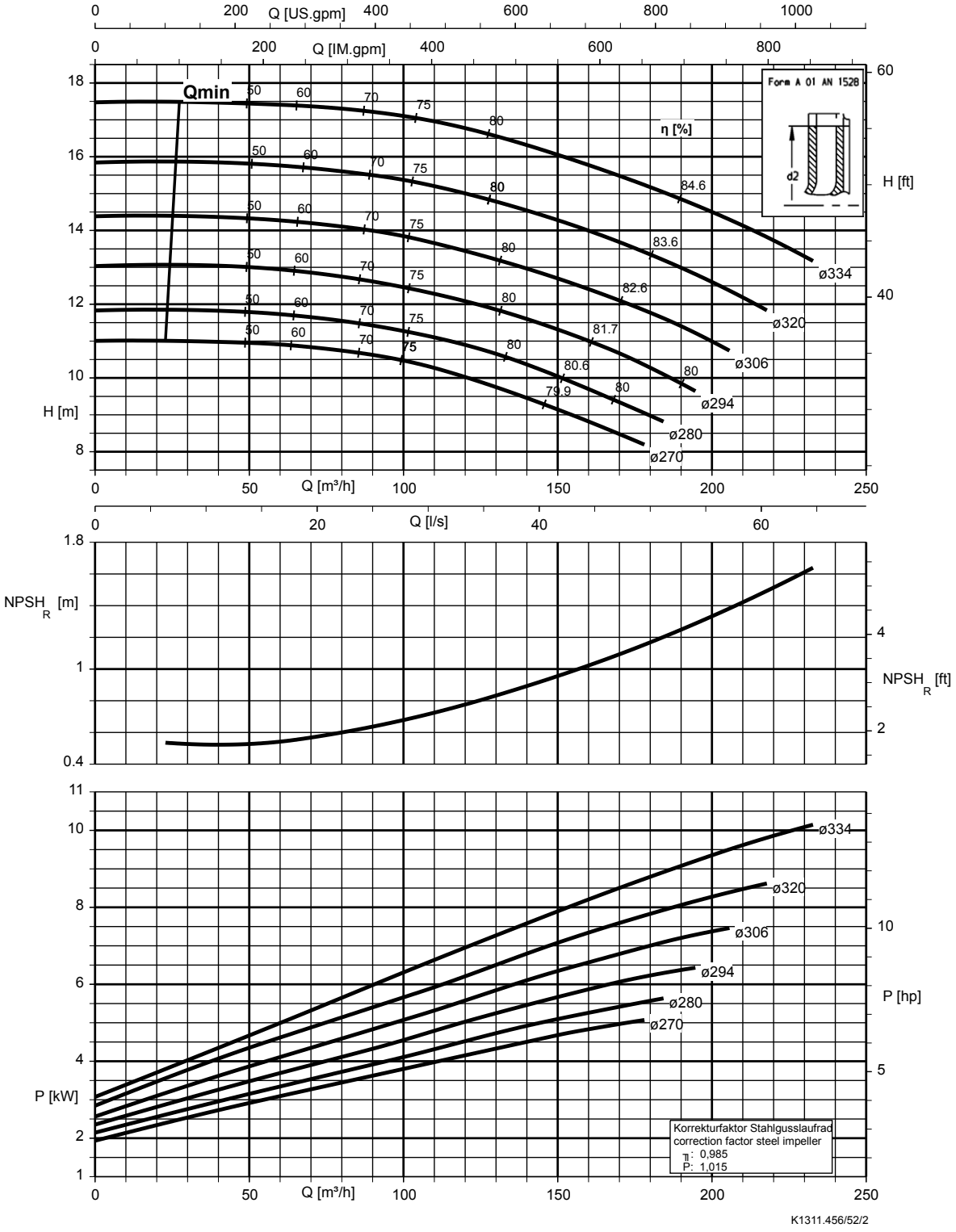
Etanorm 150-125-250, n = 960 rpm

Etanorm SYT, Etabloc



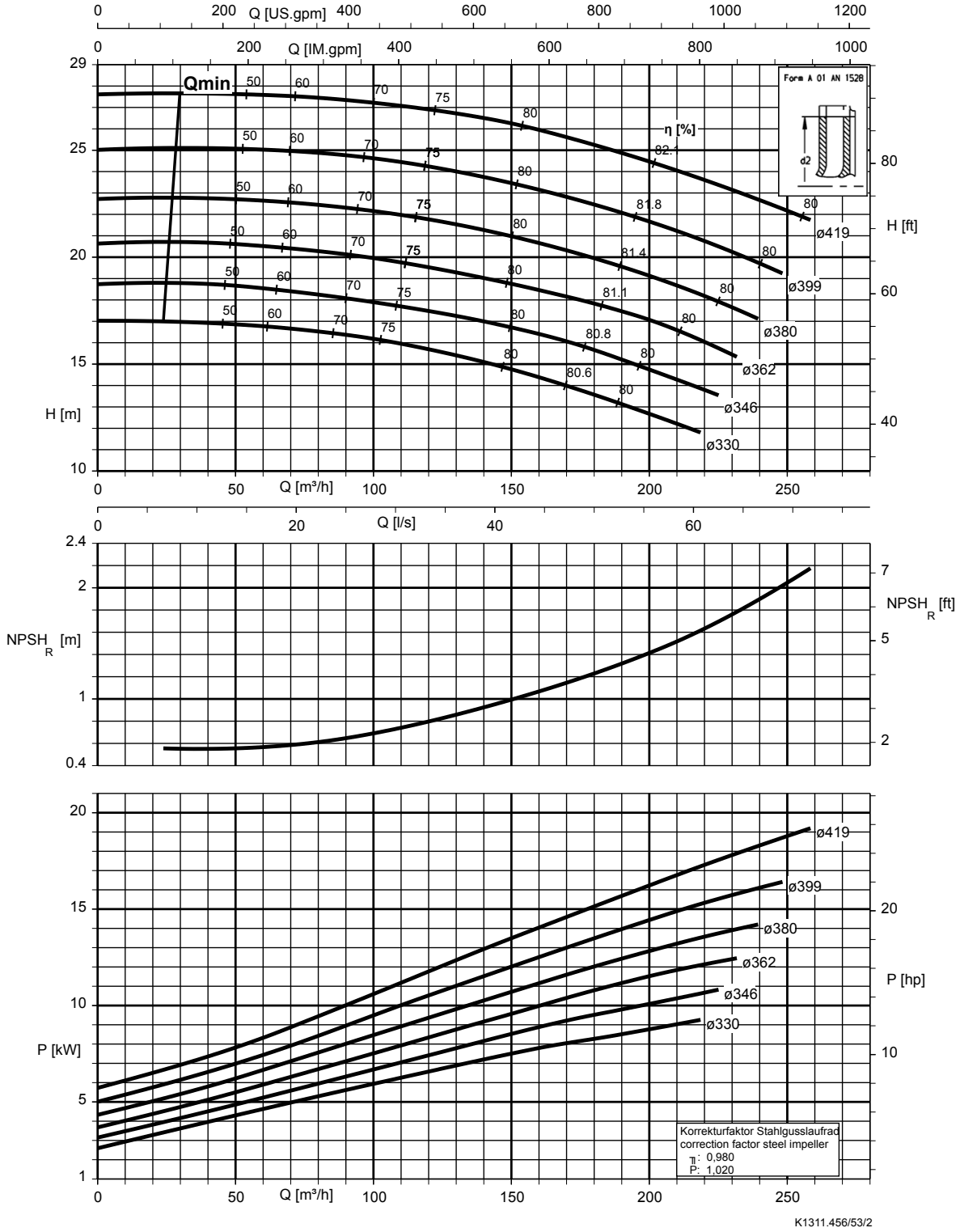
Etanorm 150-125-315, n = 960 rpm

Etanorm SYT



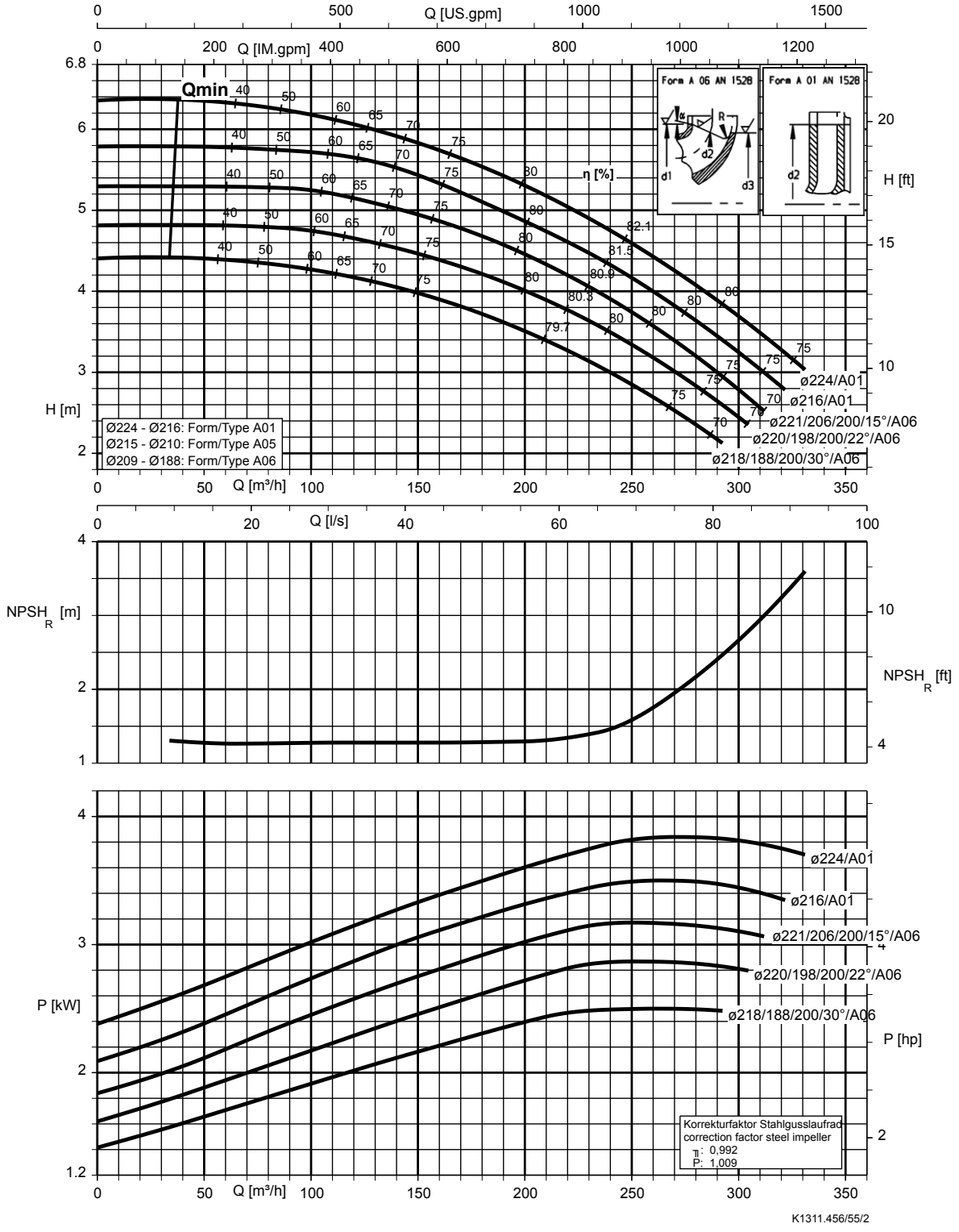
Etanorm 150-125-400, n = 960 rpm

Etanorm SYT



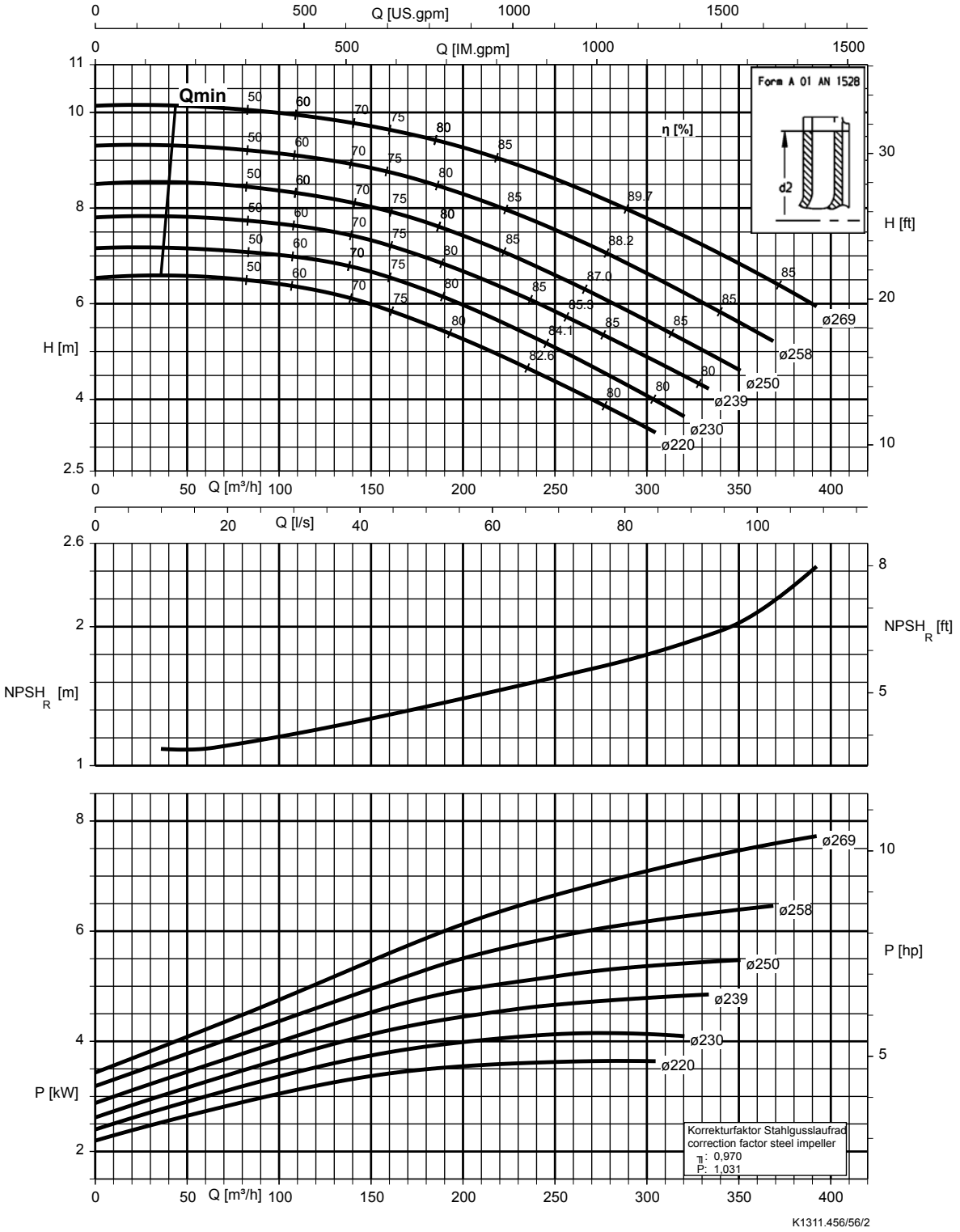
Etanorm 200-150-200, n = 960 rpm

Etabloc



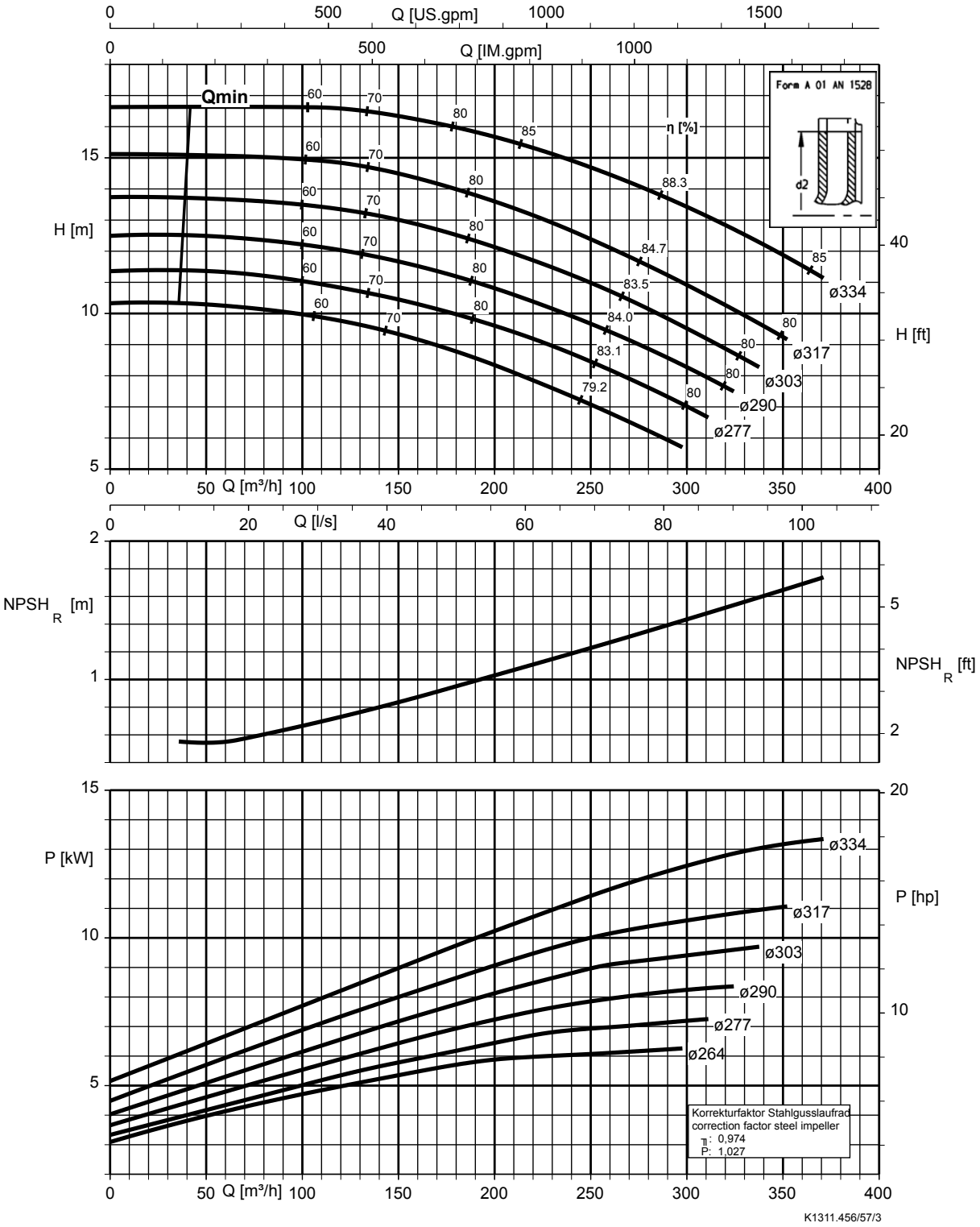
Etanorm 200-150-250, n = 960 rpm

Etabloc



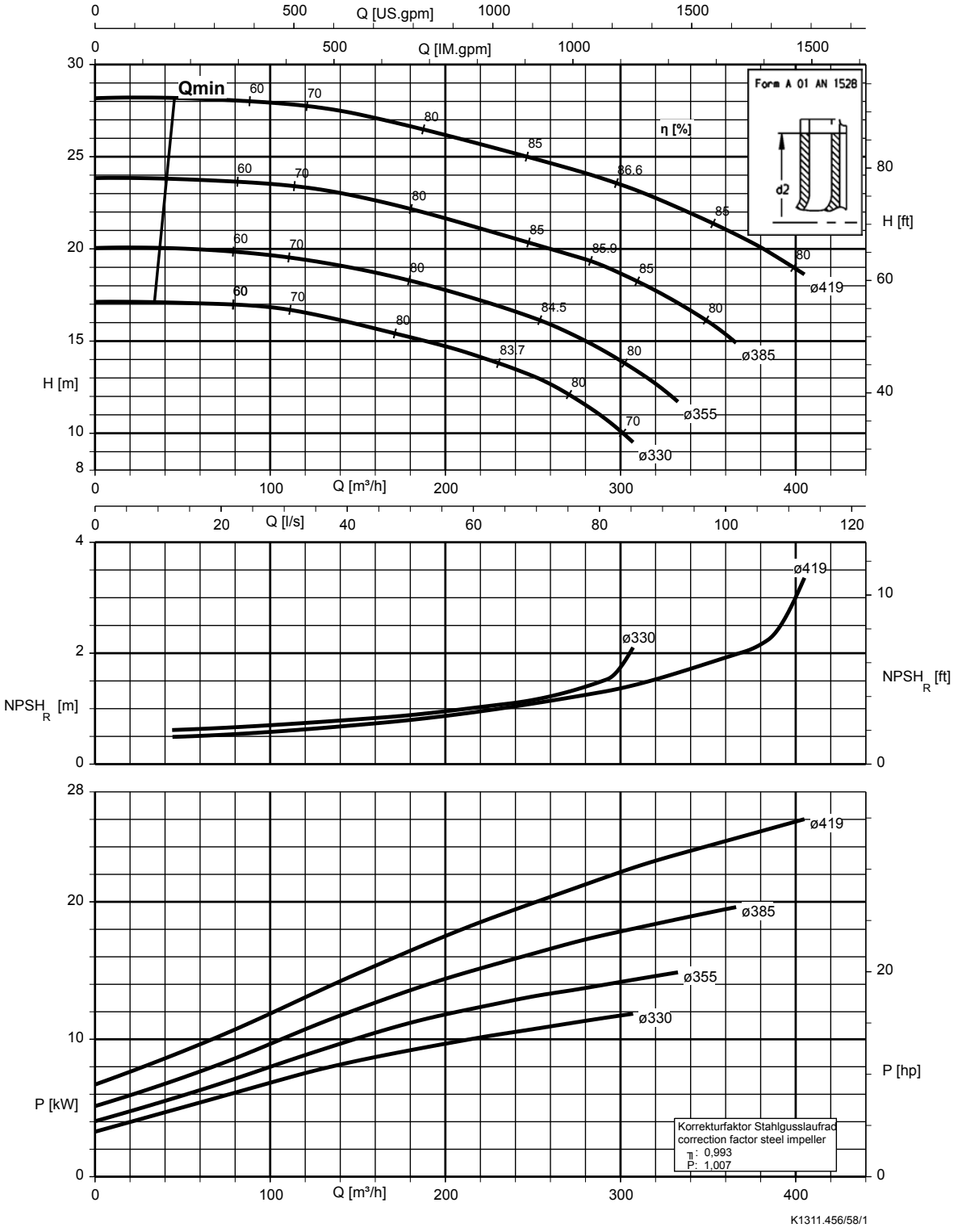
Etanorm 200-150-315, n = 960 rpm

Etanorm SYT



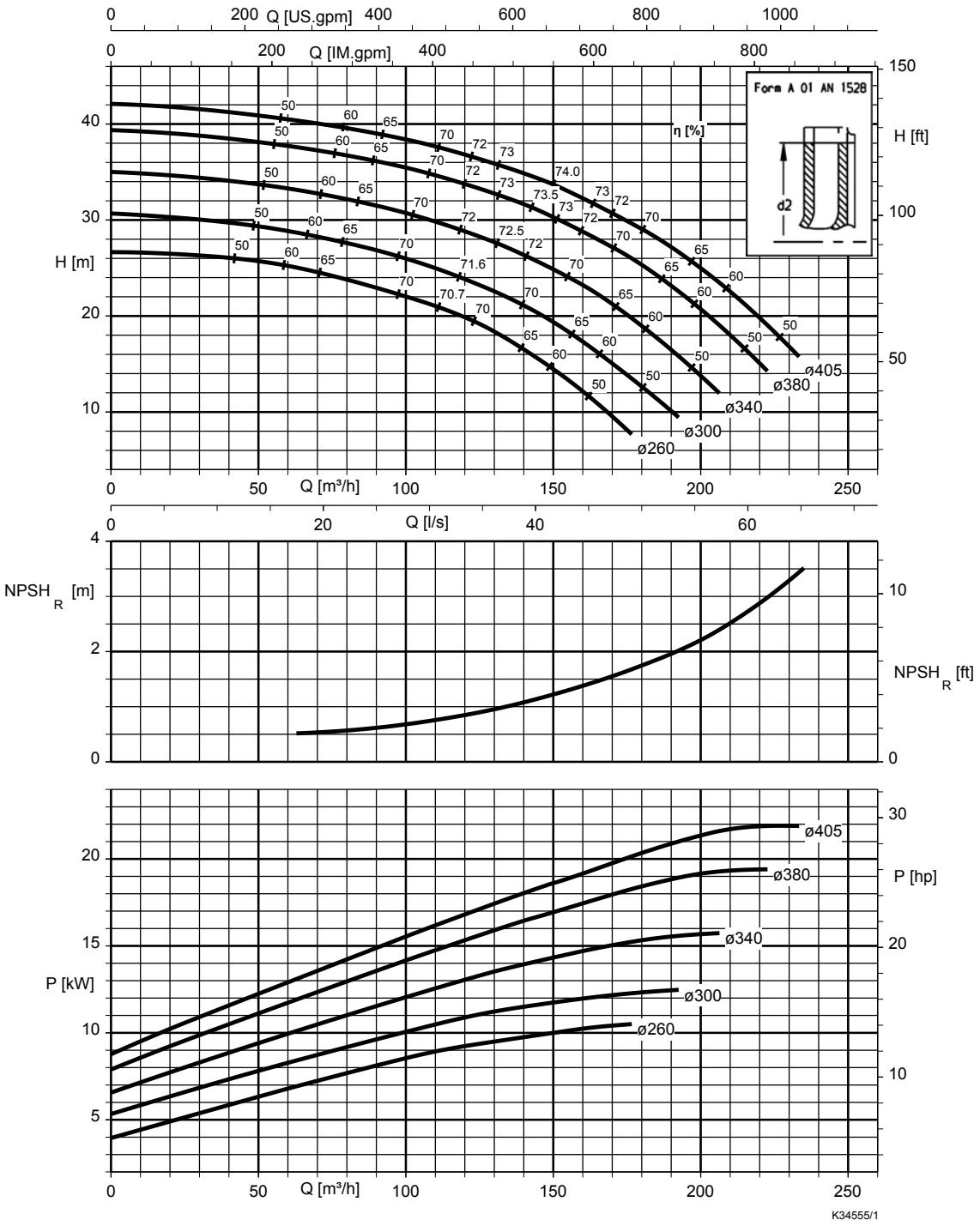
Etanorm 200-150-400, n = 960 rpm

Etanorm SYT



Etanorm-R 125-500.2, n = 960 rpm

Etanorm-RSY

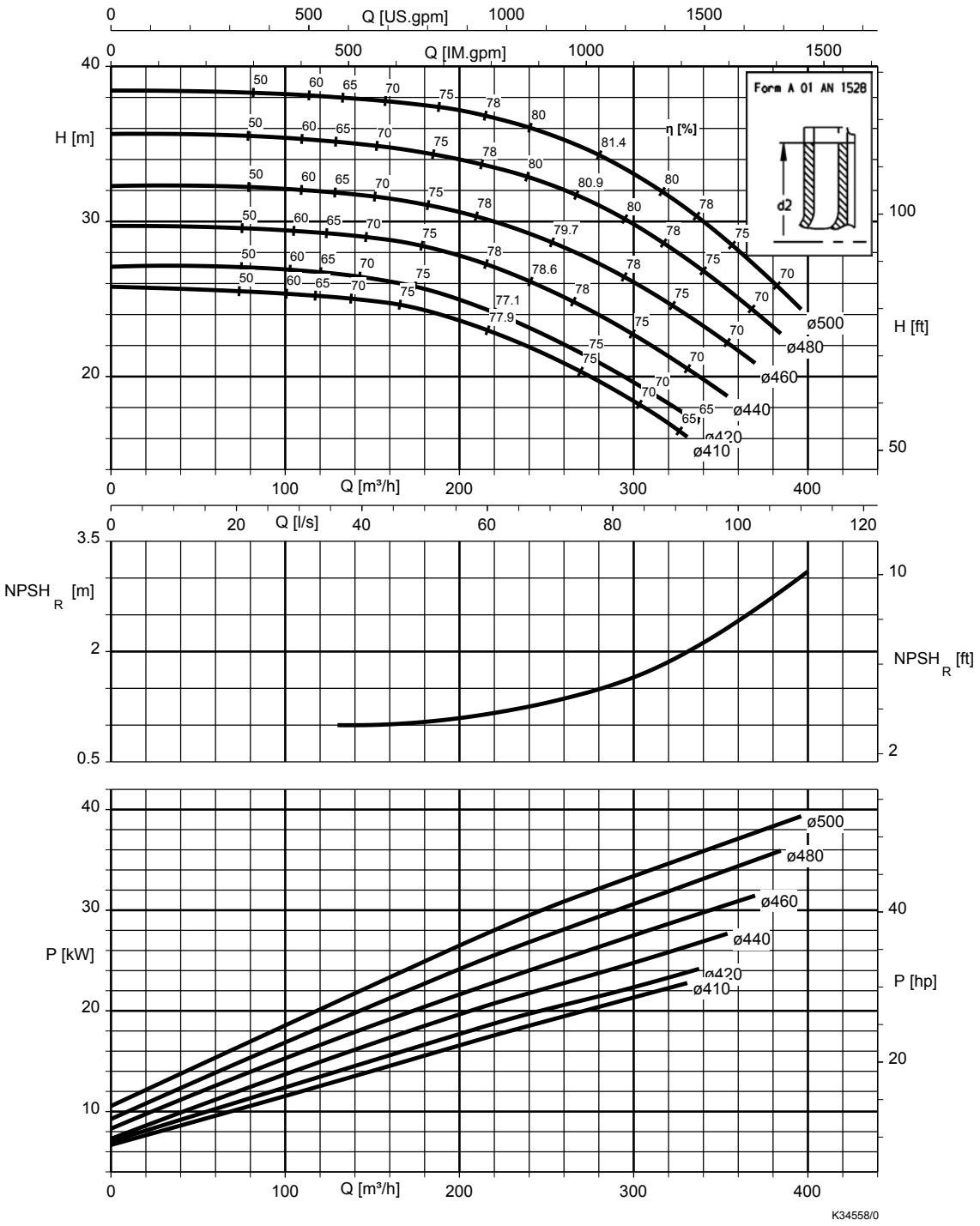


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 150-500.1, n = 960 rpm

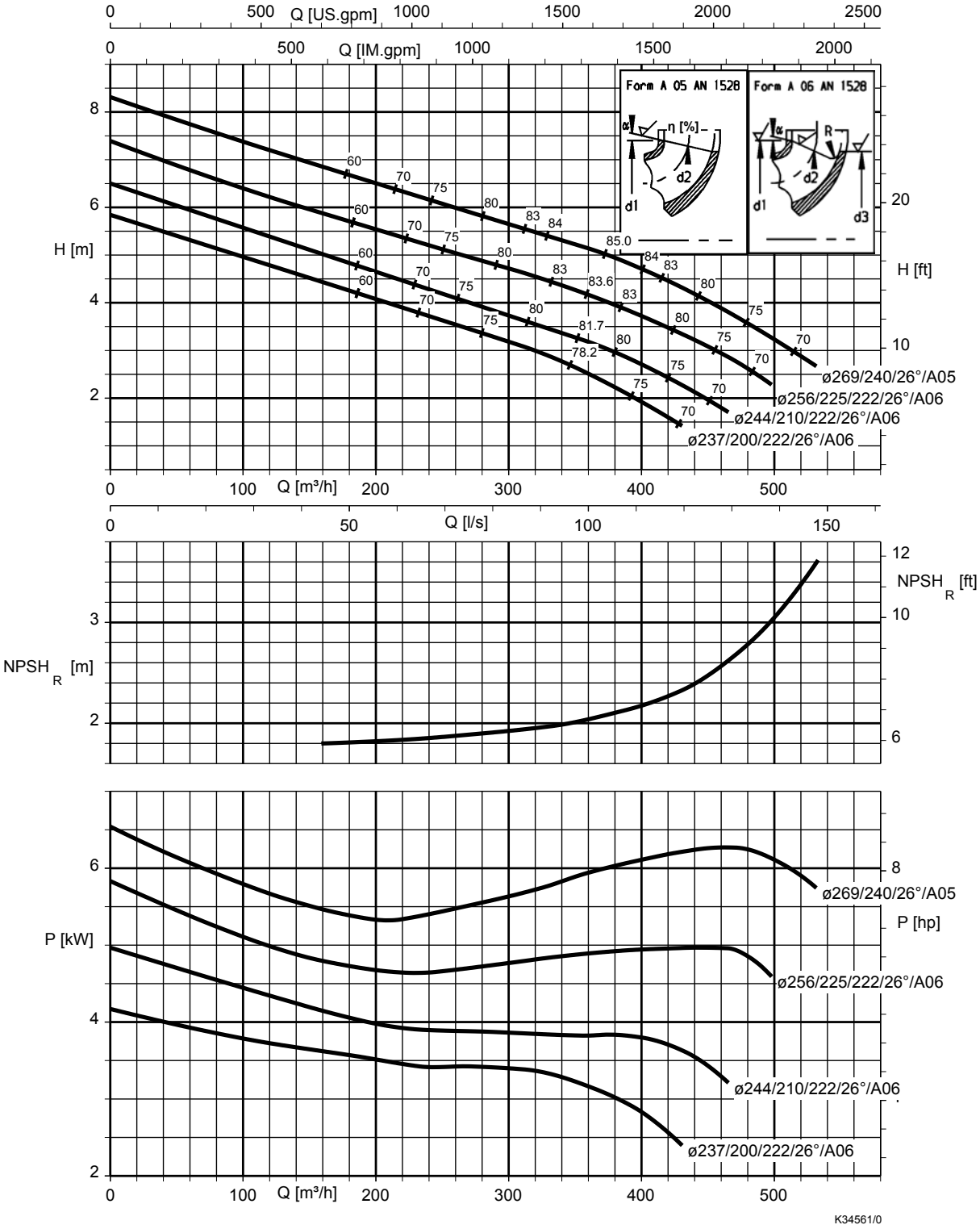
Etanorm-RSY



Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

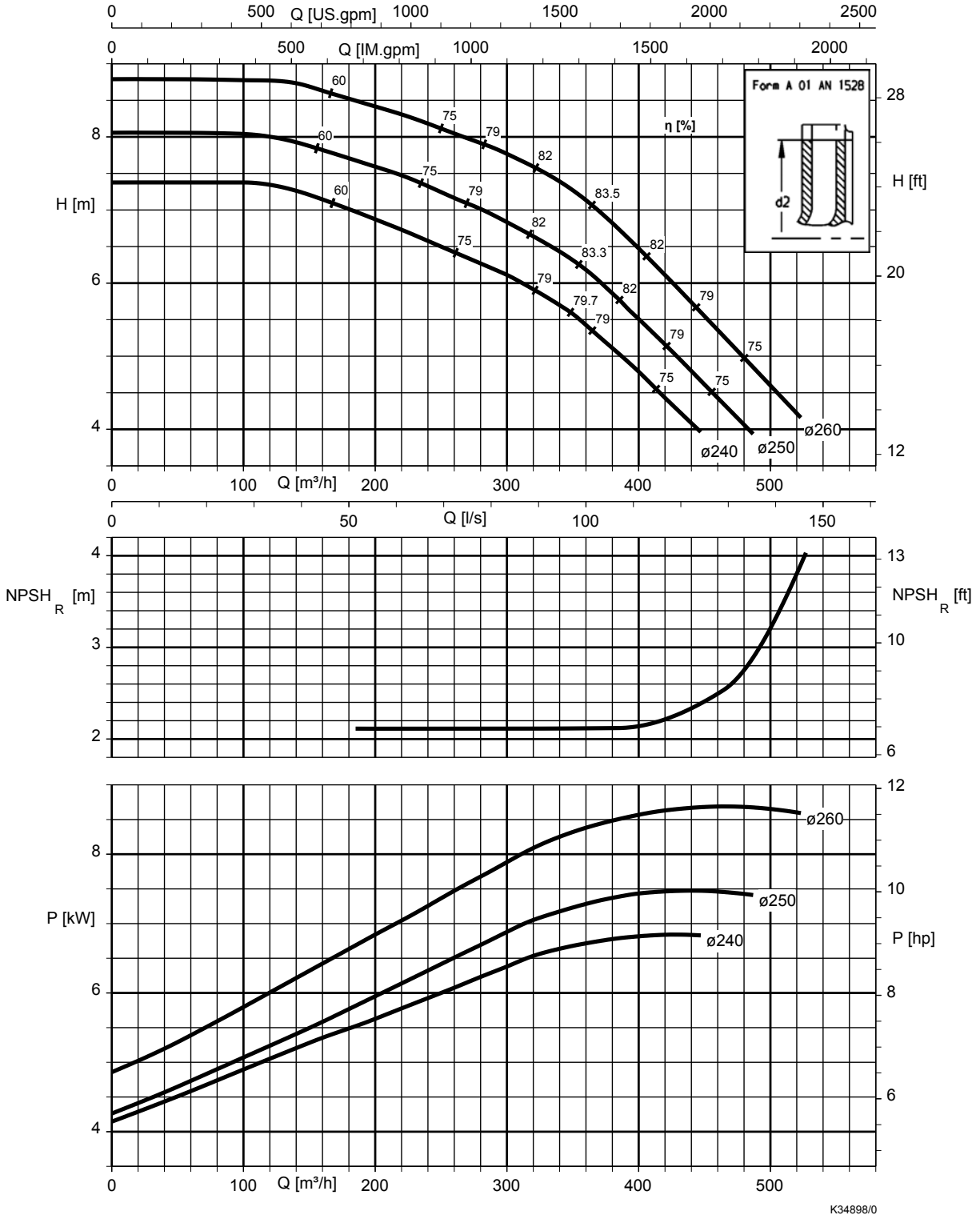
Etanorm-R 200-250, n = 960 rpm



Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq$ NPSH + correction coefficient **S**
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 200-260, n = 960 rpm

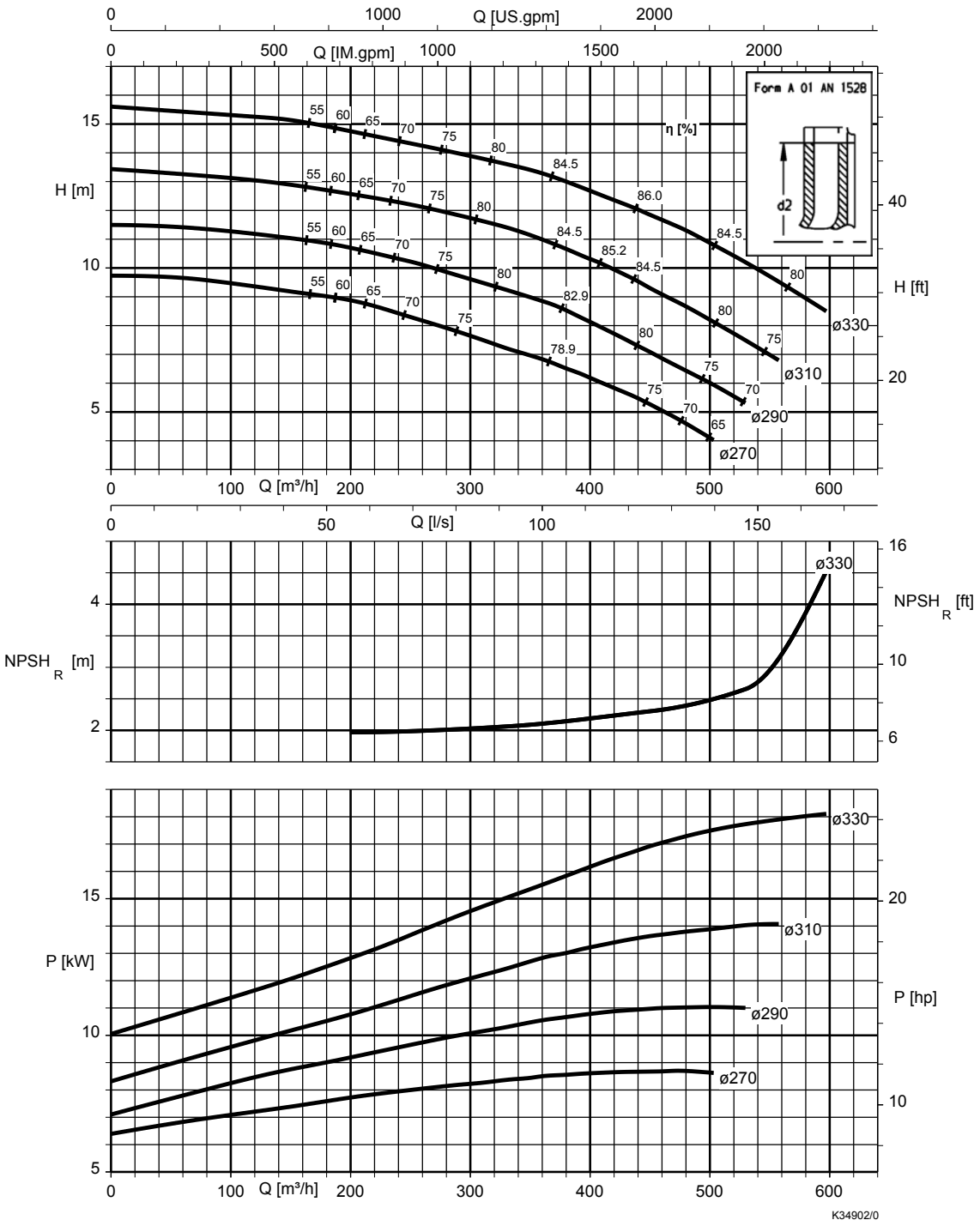


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 200-330, n = 960 rpm

Etanorm-RSY

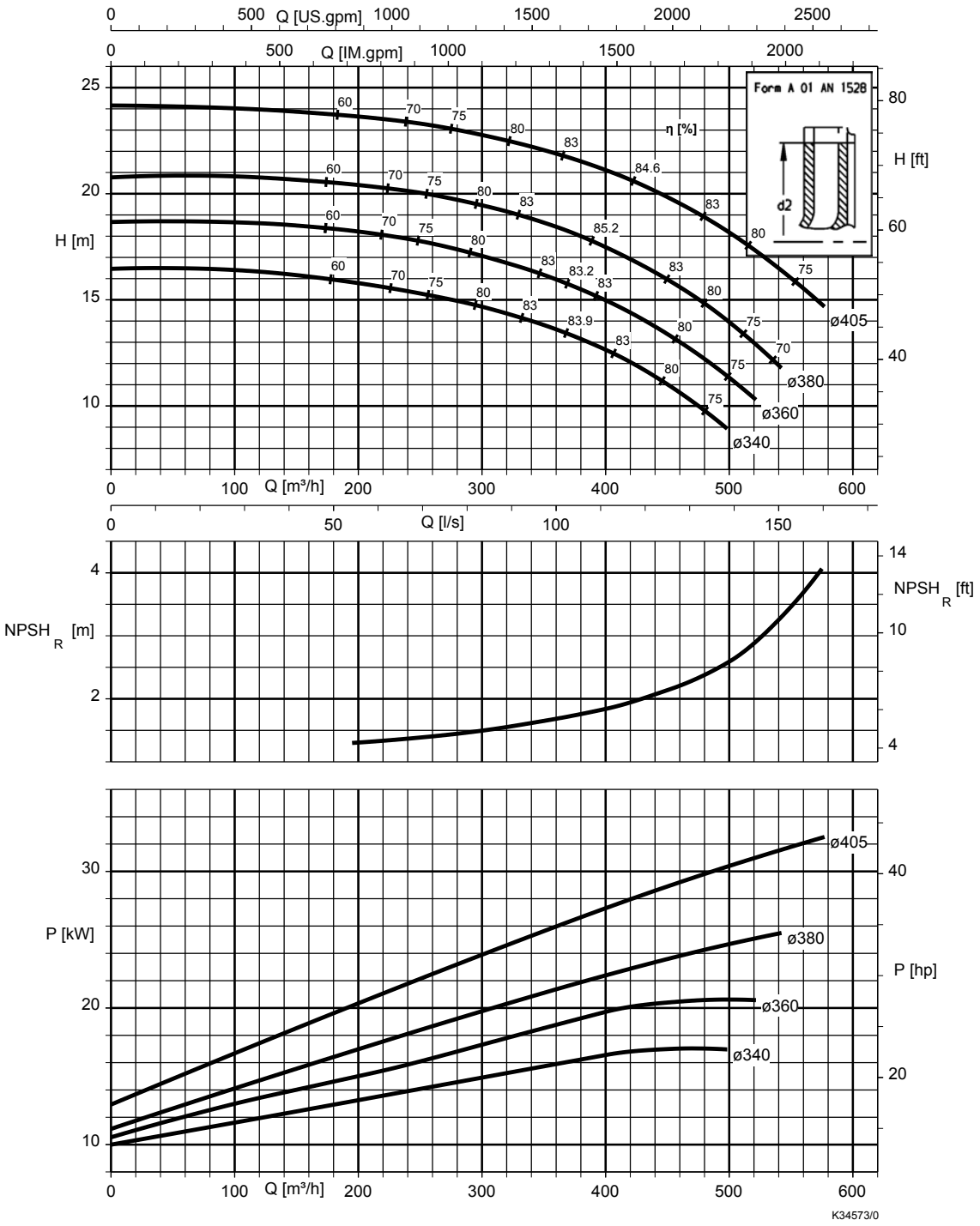


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 200-400, n = 960 rpm

Etanorm-RSY

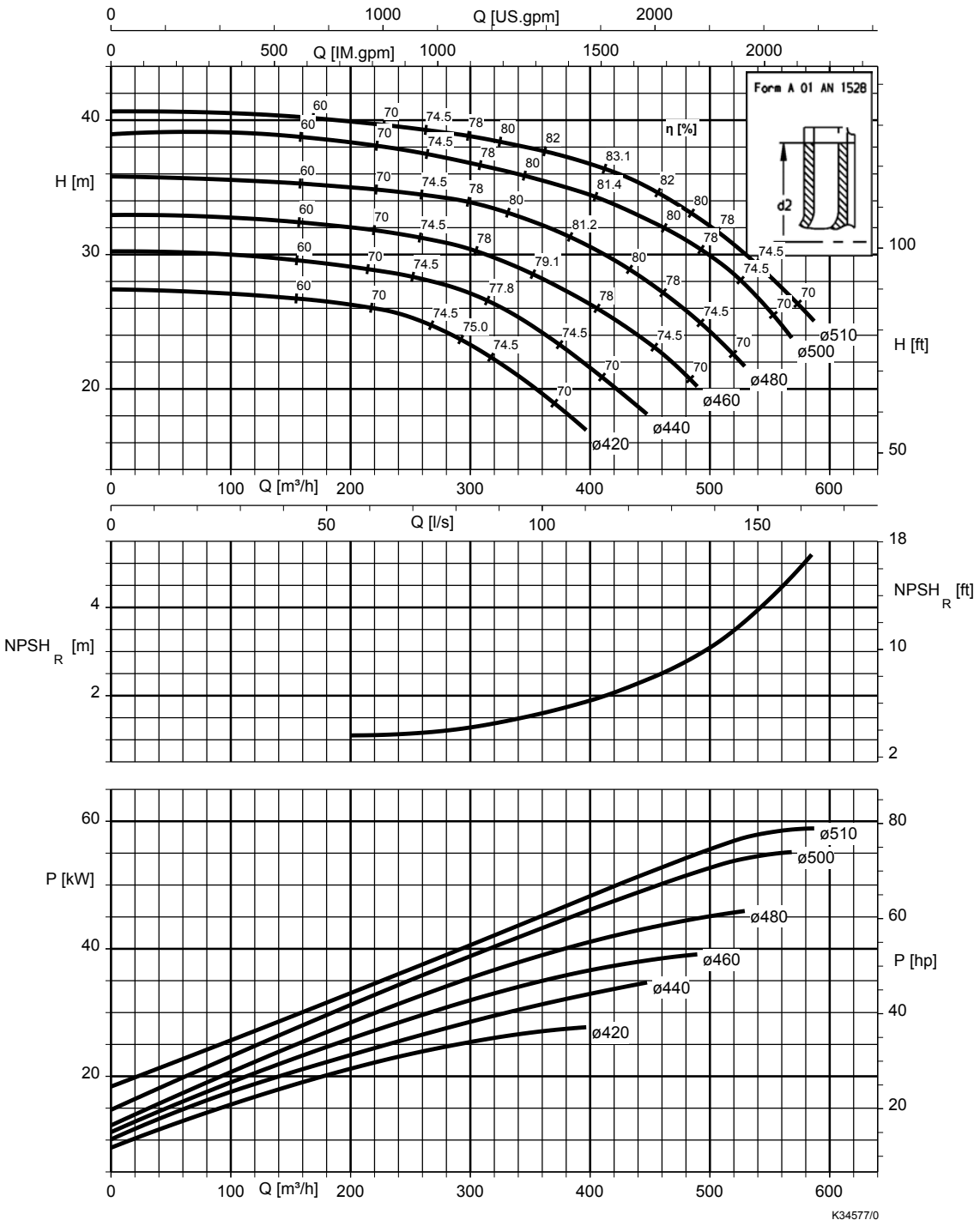


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 200-500, n = 960 rpm

Etanorm-RSY

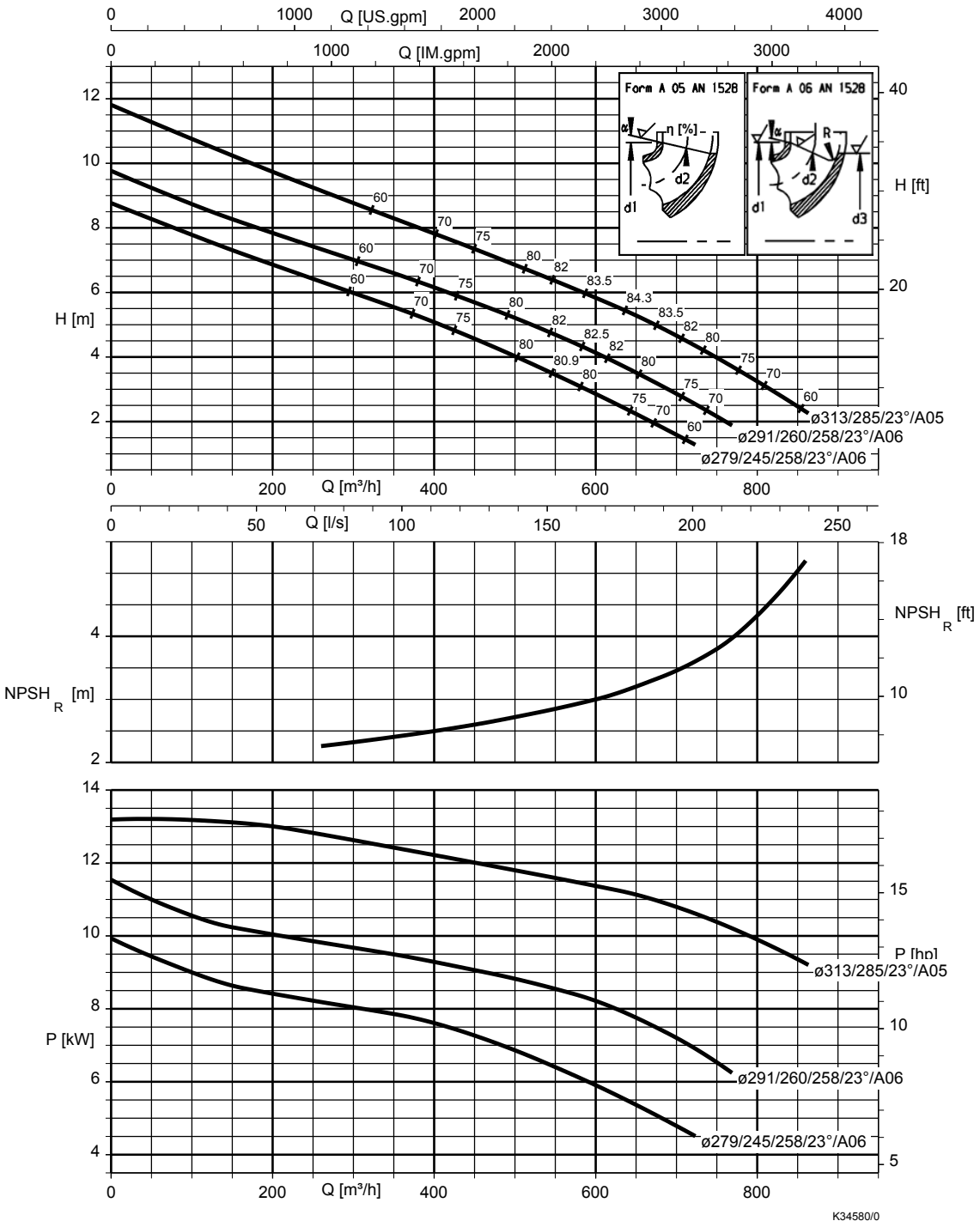


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 250-300, n = 960 rpm

Etanorm-RSY

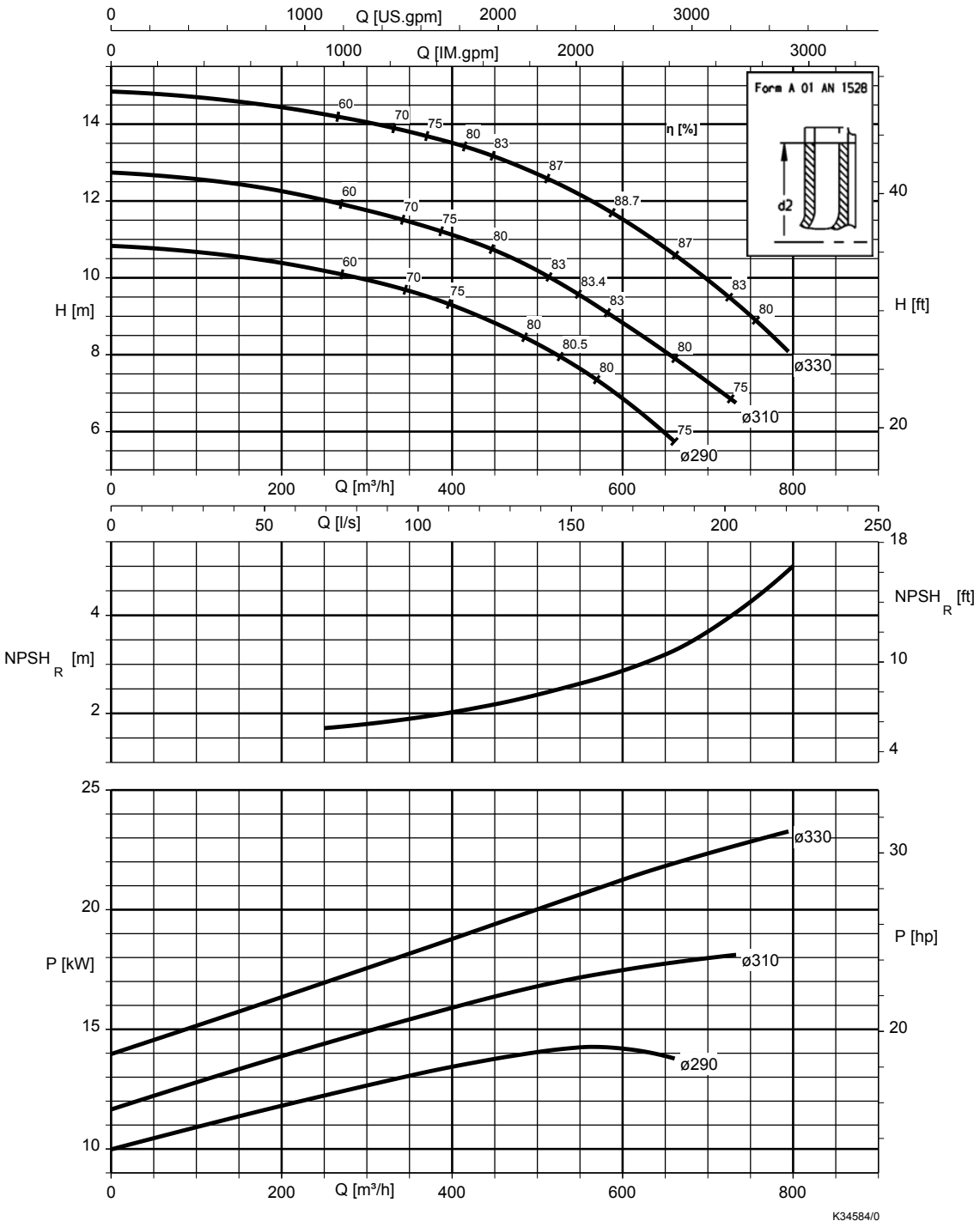


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 250-330, n = 960 rpm

Etanorm-RSY

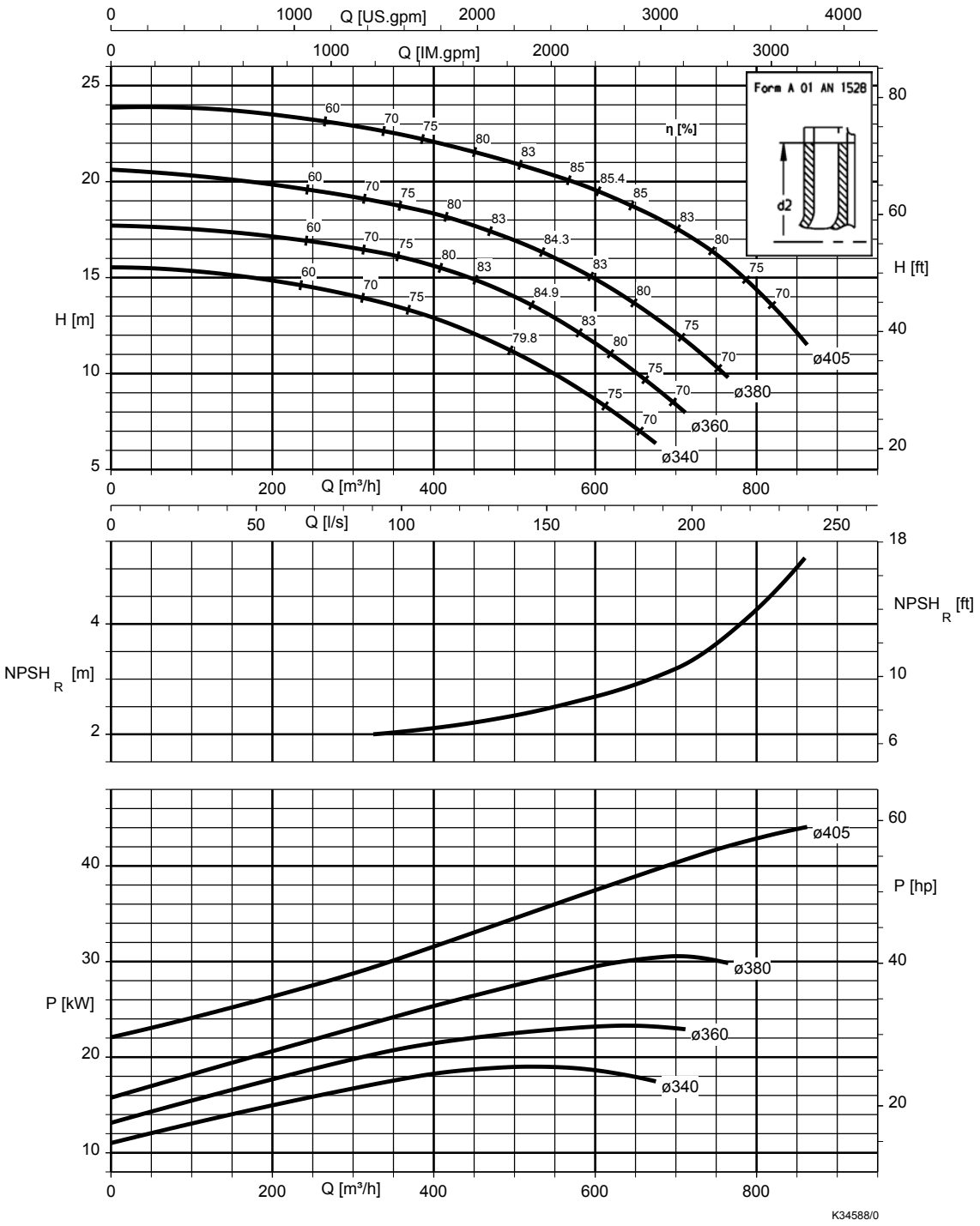


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq$ NPSH + correction coefficient **S**
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 250-400, n = 960 rpm

Etanorm-RSY

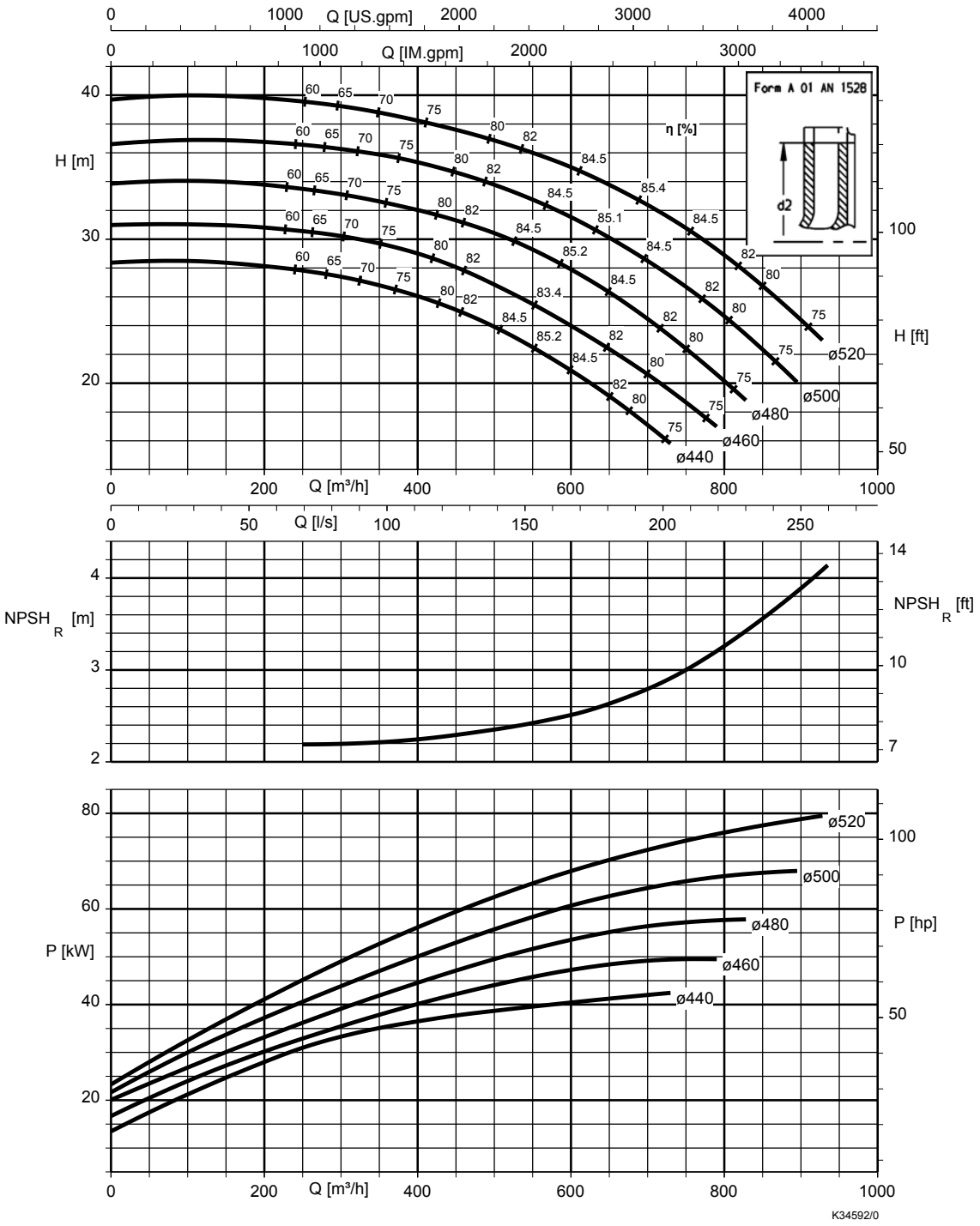


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 250-500, n = 960 rpm

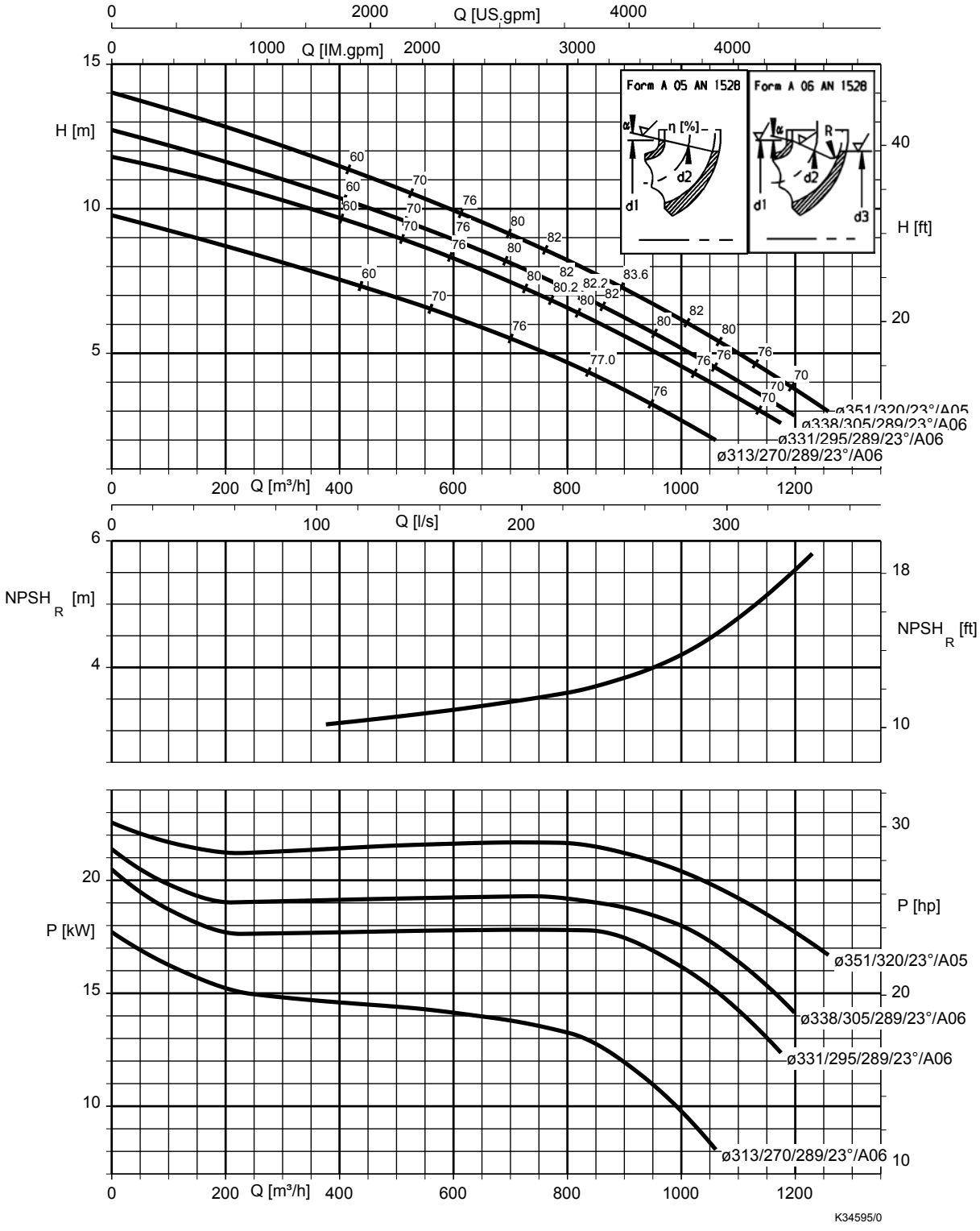
Etanorm-RSY



Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 300-340, n = 960 rpm



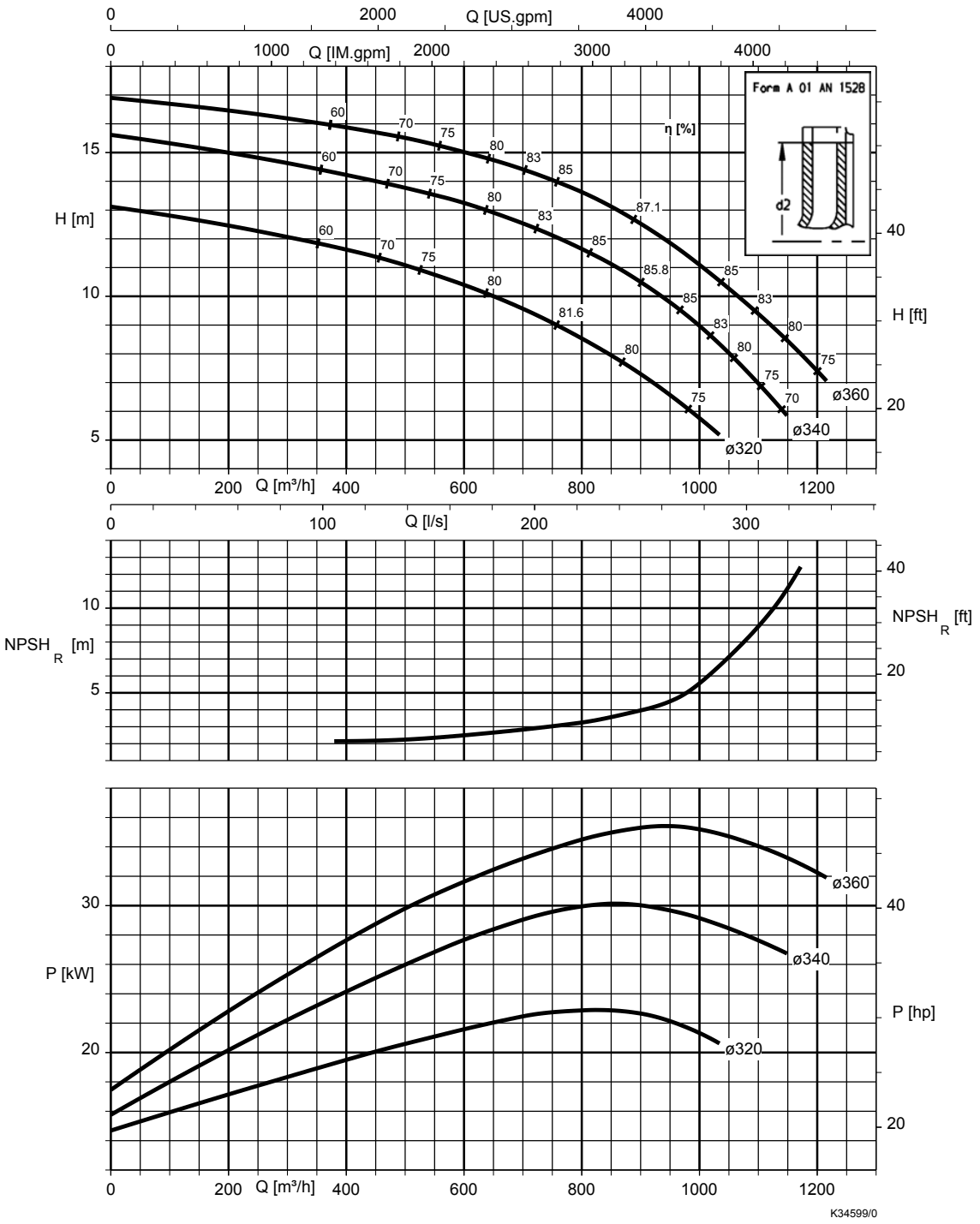
Correction coefficients

Impeller material	Correction coefficient S [m]
EN-GJL-250	1,2
CC480K-GS	0,5

Impeller material	Correction coefficient S [m]
1.4408	0,5
$NPSH_{available} \geq$ NPSH + correction coefficient **S**	

Etanorm-R 300-360, n = 960 rpm

Etanorm-RSY

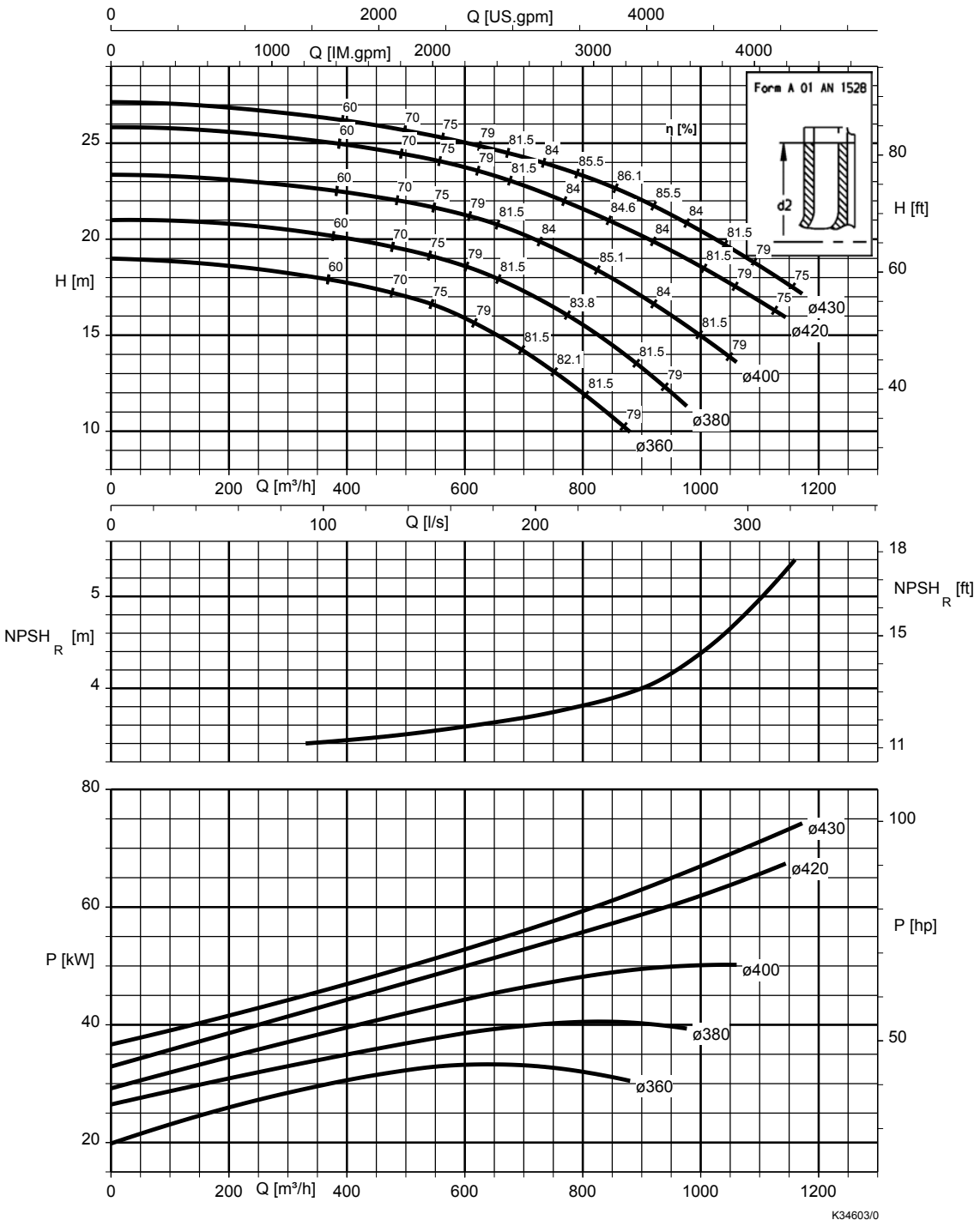


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 300-400, n = 960 rpm

Etanorm-RSY

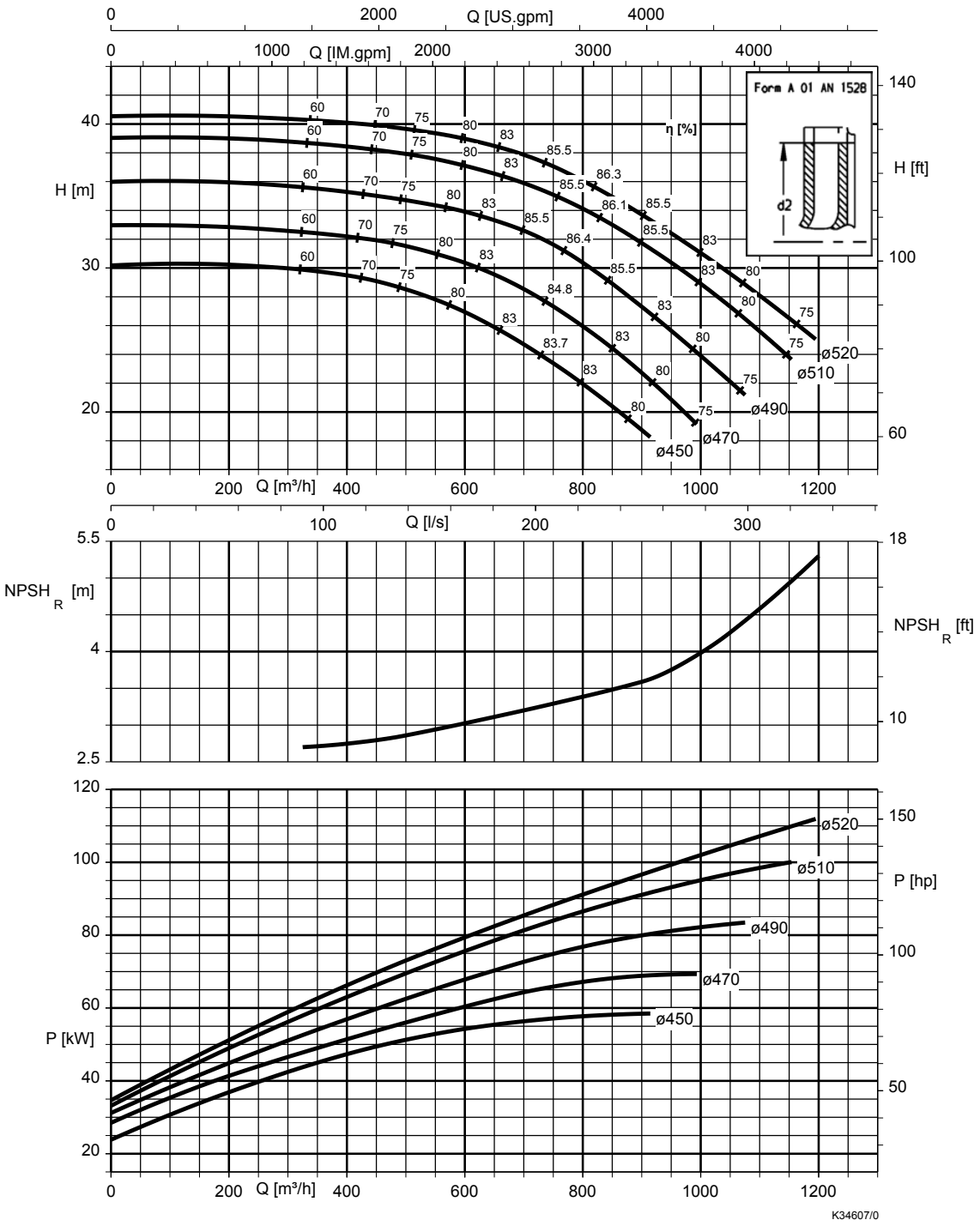


Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

Etanorm-R 300-500, n = 960 rpm

Etanorm-RSY



Correction coefficients

Impeller material	Correction coefficient S [m]	Calculation
EN-GJL-250	0,5	$NPSH_{available} \geq NPSH + correction\ coefficient\ S$
CC480K-GS	0,5	
1.4408	0,5	

14.03.2016

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