

Pompes normalisées suivant EN 733

# Etanorm



- Dimensions de raccordement et performances selon EN 733.
- Géométrie d'entrée conçue pour une capacité d'aspiration optimale (NPSH).
- Grand choix de matériaux.

Plus d'informations, livret technique : 1211.5

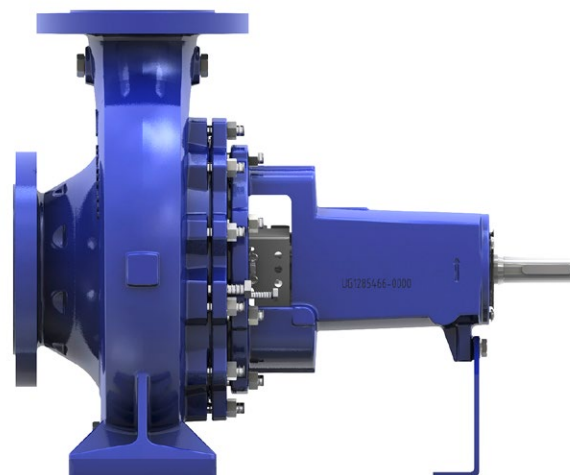
## Certifications

Ce produit est soumis à la directive sur l'écoconception 2009/125/CE et satisfait au minimum aux exigences de conception écologique des pompes à eau ayant une puissance maximale à l'arbre de 150 kW, valables en 2015 conformément au règlement (UE) n° 547/2012.

## Applications principales

Pompe destinée au refoulement de liquides agressifs ou purs n'attaquant pas chimiquement et mécaniquement les matériaux de la pompe.

- Installations d'adduction d'eau
- Circuits de refroidissement
- Piscines
- Systèmes anti-incendie
- Eau de mer
- Eau incendie
- Installations d'irrigation
- Eau de service
- Détergents
- Eau potable
- Eau saumâtre
- Systèmes d'assainissement
- Relevage de condensats
- Installations de chauffage
- Saumure
- Systèmes de climatisation
- Installations d'arrosage
- Huiles
- Eau surchauffée


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## Caractéristiques de service

Caractéristiques

| Paramètre              | Valeur |                          |
|------------------------|--------|--------------------------|
| Débit                  | Q      | Jusqu'à 660 m³/h (50 Hz) |
| Hauteur manométrique   | H      | Jusqu'à 160 m (50 Hz)    |
| Température de service | t      | -30 °C à +140 °C         |
| Pression de service    | p      | Jusqu'à 16 bar           |

## Désignation

**Exemple : Etanorm 050-032-160 GB X 10**

Explication concernant la désignation

| Abréviation | Signification                                            |
|-------------|----------------------------------------------------------|
| Etanorm     | Gamme                                                    |
| 050         | Diamètre nominal de l'orifice d'aspiration [mm]          |
| 032         | Diamètre nominal de l'orifice de refoulement [mm]        |
| 160         | Diamètre nominal de la roue [mm]                         |
| G           | Matériau du corps                                        |
|             | G = fonte                                                |
|             | B = bronze                                               |
|             | S = fonte à graphite sphéroïdal                          |
|             | C = acier inoxydable                                     |
| B           | Matériau de la roue s'il est différent de celui du corps |
|             | G = fonte                                                |
|             | C = acier inoxydable                                     |
|             | B = bronze                                               |
| X           | Désignation complémentaire                               |
|             | X = variante spéciale                                    |
|             | FX = pompe à incendie                                    |
| 10          | Garniture d'étanchéité, p. ex. Q1 Q1 X4GG                |

**Tableau des fluides pompés**

Tableau des fluides pompés avec affectation des combinaisons de matériaux

**X** = standard

| Fluide pompé                                                 | Limites d'utilisation |                   | Matériaux corps / roue                                  |                                              |                    |                                            |      |              | Étanchéité d'arbre<br>Garniture mécanique |         |           |          |        |           |                            |                     |    |                                                                                                                                    |  |  | Code d'exécution |  | Remarques |
|--------------------------------------------------------------|-----------------------|-------------------|---------------------------------------------------------|----------------------------------------------|--------------------|--------------------------------------------|------|--------------|-------------------------------------------|---------|-----------|----------|--------|-----------|----------------------------|---------------------|----|------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------|--|-----------|
|                                                              | Température<br>[°C]   | Pression<br>[bar] | Fonte grise /<br>fonte grise<br>Fonte grise /<br>bronze | Fonte à graphite sphéroïdal /<br>fonte grise | Bronze /<br>bronze | Acier moulé CrNiMo /<br>acier moulé CrNiMo | RT-P | Graphite pur | U3BEGG                                    | Q1Q1EGG | UE3U3X4GG | Q1Q1X4GG | BG1EGG | Q12Q1M1GG | Garniture de presse-étoupe | Garniture mécanique |    |                                                                                                                                    |  |  |                  |  |           |
|                                                              |                       |                   |                                                         |                                              |                    |                                            |      |              |                                           |         |           |          |        |           |                            |                     |    |                                                                                                                                    |  |  |                  |  |           |
| Eau                                                          |                       |                   |                                                         |                                              |                    |                                            |      |              |                                           |         |           |          |        |           |                            |                     |    |                                                                                                                                    |  |  |                  |  |           |
| Eau saumâtre <sup>2)</sup>                                   | ≤ 25                  | ≤ 10              |                                                         |                                              |                    | ✗                                          |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 | Acier moulé CrNiMo possible                                                                                                        |  |  |                  |  |           |
| Eau-incendie <sup>3)</sup>                                   | ≤ 60                  | ≤ 10              |                                                         | ✗                                            |                    |                                            |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 | Consulter KSB en cas de livraison suivant VdS                                                                                      |  |  |                  |  |           |
| Eau de chauffage <sup>4)</sup>                               | ≤ 120                 | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 11 | En cas d'utilisation comme pompe de circulation suivant DIN 4752 : p max. ≤ 10 bar<br>En cas d'exigence de matériau tenace : « S » |  |  |                  |  |           |
| Eau de chauffage                                             | ≤ 140                 | ≤ 16              | ✗                                                       |                                              |                    |                                            |      |              | ✗                                         | ✗       |           |          |        |           |                            | 3                   | 6  |                                                                                                                                    |  |  |                  |  |           |
| Eau de chauffage                                             | ≥ 110                 | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 |                                                                                                                                    |  |  |                  |  |           |
| Condensat                                                    | ≤ 120                 | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 |                                                                                                                                    |  |  |                  |  |           |
| Condensat non conditionné                                    | ≤ 120                 | ≤ 10              |                                                         |                                              |                    |                                            | ✗    | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 |                                                                                                                                    |  |  |                  |  |           |
| Eau de refroidissement (sans antigel)                        | ≤ 60                  | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 | Circuit ouvert : prévoir GB 1 / GB 10                                                                                              |  |  |                  |  |           |
| Eau de refroidissement pH ≥ 7,5 (avec antigel) <sup>5)</sup> | ≥ 30<br>≤ 60          | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 | Circuit ouvert : prévoir GB                                                                                                        |  |  |                  |  |           |
| Eau de refroidissement pH ≥ 7,5 (avec antigel) <sup>6)</sup> | ≥ 60<br>≤ 110         | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         | ✗         |          |        |           |                            | 1                   | 7  | Circuit ouvert : prévoir GB                                                                                                        |  |  |                  |  |           |
| Eaux légèrement chargées                                     | ≤ 60                  | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 |                                                                                                                                    |  |  |                  |  |           |
| Eau de mer                                                   | ≤ 25                  | ≤ 10              |                                                         |                                              |                    | ✗                                          |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 | Acier moulé CrNiMo possible                                                                                                        |  |  |                  |  |           |
| Eau propre <sup>7)</sup>                                     | ≤ 60                  | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 |                                                                                                                                    |  |  |                  |  |           |
| Eau brute                                                    | ≤ 60                  | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 |                                                                                                                                    |  |  |                  |  |           |
| Eau de piscine (eau douce)                                   | ≤ 60                  | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 | Également valable si la DIN 19643 doit être respectée.                                                                             |  |  |                  |  |           |
| Eau de piscine (eau de mer)                                  | ≤ 40                  | ≤ 10              |                                                         |                                              |                    | ✗                                          |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 | Acier moulé CrNiMo pour t ≤ 25 °C                                                                                                  |  |  |                  |  |           |
| Eau de barrage-réservoir                                     | ≤ 60                  | ≤ 10              |                                                         | ✗                                            |                    |                                            |      | ✗            |                                           |         |           |          | ✗      |           |                            | 1                   | 10 | Consulter KSB en cas de teneur en matières solides                                                                                 |  |  |                  |  |           |
| Eau potable                                                  | ≤ 60                  | ≤ 10              |                                                         | ✗                                            |                    |                                            |      | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 |                                                                                                                                    |  |  |                  |  |           |
| Eau partiellement déminéralisée                              | ≤ 120                 | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 |                                                                                                                                    |  |  |                  |  |           |
| Eau entièrement déminéralisée                                | ≤ 120                 | ≤ 10              |                                                         |                                              |                    |                                            | ✗    | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 | Les exigences de pureté ne peuvent pas être remplies.                                                                              |  |  |                  |  |           |
| Eau entièrement déminéralisée pour alimentation de chaudière | ≤ 120                 | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 |                                                                                                                                    |  |  |                  |  |           |
| Fluides frigoporteurs, saumures de refroidissement           |                       |                   |                                                         |                                              |                    |                                            |      |              |                                           |         |           |          |        |           |                            |                     |    |                                                                                                                                    |  |  |                  |  |           |
| Saumure de refroidissement inorganique, pH > 7,5 ; inhibée   | ≥ 30<br>≤ 25          | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 |                                                                                                                                    |  |  |                  |  |           |
| Eau avec antigel, pH ≥ 7,5                                   | ≥ 30<br>≤ 60          | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         |           |          |        | ✗         |                            | 1                   | 11 |                                                                                                                                    |  |  |                  |  |           |
| Eau avec antigel, pH ≥ 7,5                                   | ≥ 60<br>≤ 110         | ≤ 10              | ✗                                                       |                                              |                    |                                            |      | ✗            |                                           |         | ✗         |          |        |           |                            | 1                   | 7  |                                                                                                                                    |  |  |                  |  |           |

| Fluide pompé                                                                                 | Limites d'utilisation |                   | Matériaux corps / roue                                  |                                              |                    |                                            |      |              | Étanchéité d'arbre<br>Garniture mécanique |         |           |          |        |           |                            |                     | Code d'exécution                                                                                                                   |  | Remarques |
|----------------------------------------------------------------------------------------------|-----------------------|-------------------|---------------------------------------------------------|----------------------------------------------|--------------------|--------------------------------------------|------|--------------|-------------------------------------------|---------|-----------|----------|--------|-----------|----------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------|--|-----------|
|                                                                                              | Température<br>[°C]   | Pression<br>[bar] | Fonte grise /<br>fonte grise<br>Fonte grise /<br>bronze | Fonte à graphite sphéroïdal /<br>fonte grise | Bronze /<br>bronze | Acier moulé CrNiMo /<br>acier moulé CrNiMo | RT-P | Graphite pur | U3BEGG                                    | Q1Q1EGG | UE3U3X4GG | Q1Q1X4GG | BG1EGG | Q12Q1M1GG | Garniture de presse-étoupe | Garniture mécanique |                                                                                                                                    |  |           |
|                                                                                              |                       |                   |                                                         |                                              |                    |                                            |      |              |                                           |         |           |          |        |           |                            |                     |                                                                                                                                    |  |           |
| Huiles / émulsions                                                                           |                       |                   |                                                         |                                              |                    |                                            |      |              |                                           |         |           |          |        |           |                            |                     |                                                                                                                                    |  |           |
| Gazole, fuel extra léger                                                                     | ≤ 60                  | ≤ 10              |                                                         |                                              |                    |                                            |      |              |                                           |         |           | ✗        |        |           |                            | 10                  | Fonte grise possible en l'absence de prescriptions à respecter                                                                     |  |           |
| Huile de lubrification, huile à turbine, ne s'applique pas aux huiles SF-D (peu inflammable) | ≤ 80                  | ≤ 10              |                                                         |                                              | ✗                  |                                            |      |              |                                           |         |           | ✗        |        |           |                            | 10                  | Consulter KSB en cas d'exigence « sans couche de fond intérieure ». Fonte grise possible en l'absence de prescriptions à respecter |  |           |
| Émulsion de forage / rectification                                                           | ≤ 60                  | ≤ 10              | ✗                                                       |                                              |                    |                                            |      |              |                                           |         | ✗         |          |        |           | 1                          | 9                   |                                                                                                                                    |  |           |
| Émulsion huile/eau                                                                           | ≤ 60                  | ≤ 10              | ✗                                                       |                                              |                    |                                            |      |              |                                           |         | ✗         |          |        |           | 1                          | 9                   |                                                                                                                                    |  |           |
| Applications brassicoles                                                                     |                       |                   |                                                         |                                              |                    |                                            |      |              |                                           |         |           |          |        |           |                            |                     |                                                                                                                                    |  |           |
| Trempe                                                                                       | ≤ 100                 | ≤ 10              | ✗                                                       |                                              |                    |                                            |      |              |                                           |         |           |          |        | ✗         |                            | 12                  | En cas de risque de marche à sec suite à la vidange excessive du réservoir, prévoir une Etanorm avec garniture double en tandem.   |  |           |
| Moût                                                                                         | ≤ 100                 | ≤ 10              | ✗                                                       |                                              |                    |                                            |      |              |                                           |         |           |          |        | ✗         |                            | 12                  |                                                                                                                                    |  |           |

- 1) Na : p1 ≤ 0,5 bar ; Na : p1 > 0,5 bar
- 2) À respecter pour les composants en bronze : ammoniac (NH3) ≤ 5 mg/kg, exempt de sulfure d'hydrogène (H2S) ; dans ce cas, aucune restriction de la teneur en Cl n'est applicable. Consulter KSB si les valeurs limites ne peuvent être respectées.
- 3) Critères d'évaluation généraux dans le cas d'une analyse d'eau : pH ≥ 7 ; teneur en chlorures (Cl) ≤ 250 mg/kg. Chlore (Cl2) ≤ 0,6 mg/kg
- 4) Traitement suivant VdTÜV 1466 ; à respecter en plus : O2 t ≤ 0,02 mg/l
- 5) Antigél à base d'éthylène glycol avec inhibiteurs. Teneur > 20 % jusqu'à 50 % (p. ex. Antifrogen N)
- 6) Antigél à base d'éthylène glycol avec inhibiteurs. Teneur > 20 % jusqu'à 50 % (p. ex. Antifrogen N)
- 7) Pas d'eau ultrapure ! Conductivité à 25 °C : ≤ 800 µS/cm, neutre en termes de corrosion

## Conception

### Construction

- Pompe à volute
- Installation horizontale
- Construction « process »
- Monocellulaire
  - Dimensions et performances suivant EN 733
- Conforme aux exigences de la directive 2009/125/CE

### Corps de pompe

- Volute à plan de joint radial
- Volute avec pieds de pompe surmoulés
- Bagues d'usure remplaçables

### Forme de roue

- Roue radiale fermée à aubes à double courbure

### Paliers

Paliers

#### Variantes de paliers

Paliers standard

– Palier flottant : roulement à billes à gorges profondes

Paliers renforcés

– Palier flottant : roulement à billes à gorges profondes

## Garniture d'étanchéité d'arbre

Garniture d'étanchéité d'arbre

### Variantes de garnitures d'étanchéité d'arbre

Garniture de presse-étoupe

Garnitures mécaniques simples et doubles suivant EN 12756

Arbre avec chemise d'arbre sous garniture remplaçable au niveau de la garniture d'étanchéité d'arbre

Désignation du support de palier

| Désignation | Explication                                                                     |
|-------------|---------------------------------------------------------------------------------|
| WS          | Support de palier pompe à eau normalisée                                        |
| 25          | Taille (se réfère aux dimensions de la chambre d'étanchéité et du bout d'arbre) |
| LS          | Standard                                                                        |
| LR          | Renforcé                                                                        |

## Paliers utilisés

### Paliers standard

| Version                                        | Support de palier | Roulement  |                   |
|------------------------------------------------|-------------------|------------|-------------------|
|                                                |                   | Côté pompe | Côté entraînement |
| Paliers standard (lubrification à la graisse)  | WS_25_LS          | 6305 2Z C3 | 6305 2Z C3        |
|                                                | WS_35_LS          | 6307 2Z C3 | 6307 2Z C3        |
|                                                | WS_55_LS          | 6311 2Z C3 | 6311 2Z C3        |
| Paliers standard (lubrification à l'huile)     | WS_25_LS          | 6305 C3    | 6305 C3           |
|                                                | WS_35_LS          | 6307 C3    | 6307 C3           |
|                                                | WS_55_LS          | 6311 C3    | 6311 C3           |
| Paliers renforcés (lubrification à la graisse) | WS_50_LR          | 6310 2Z C3 | 6310 2Z C3        |
|                                                | WS_60_LR          | 6312 2Z C3 | 6312 2Z C3        |
| Paliers renforcés (lubrification à l'huile)    | WS_50_LR          | 6310 C3    | 6310 C3           |
|                                                | WS_60_LR          | 6312 C3    | 6312 C3           |

## Automatisation

### Lubrification

| Type de lubrification      |
|----------------------------|
| Lubrification à la graisse |
| Lubrification à l'huile    |

### Automatisation possible avec :

| Systèmes d'automatisation |
|---------------------------|
| PumpMeter                 |
| PumpDrive                 |

## Matériaux

### Tableau des matériaux disponibles Europe

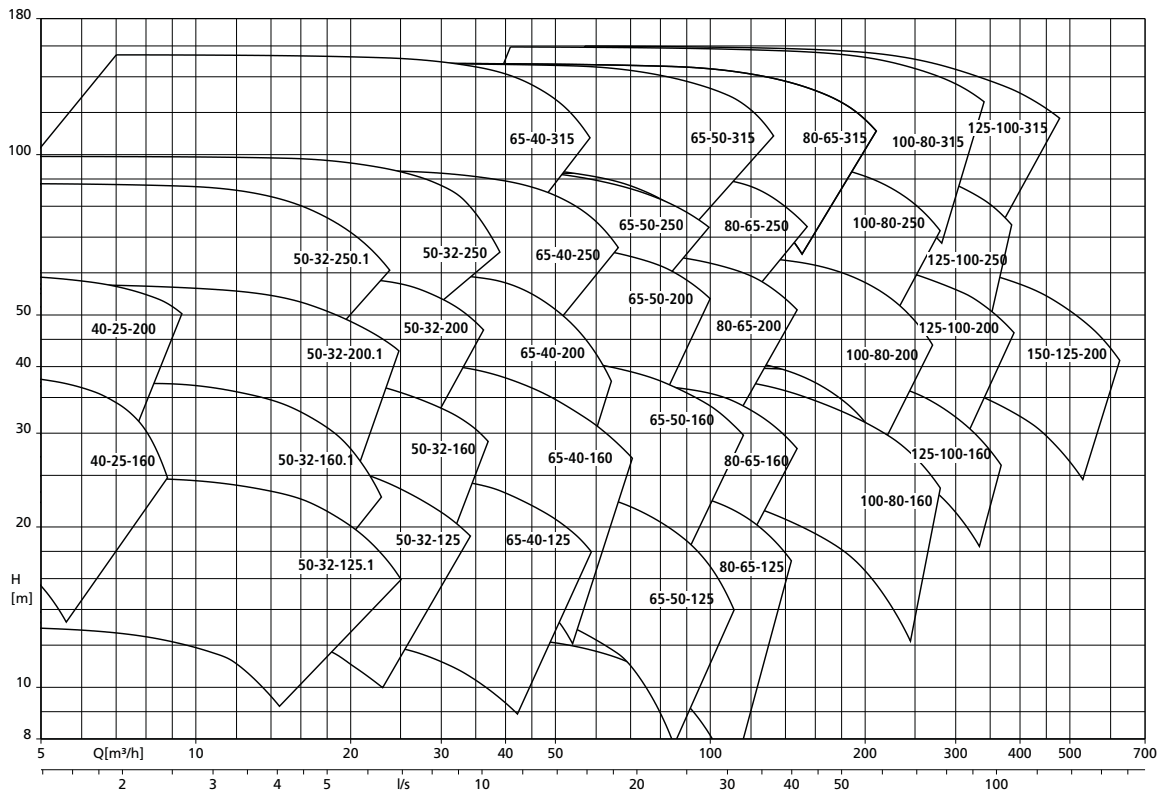
| Repère | Désignation des pièces         |                                                      | Variante de matériau |    |    |    |    |    |    |    |    |  |
|--------|--------------------------------|------------------------------------------------------|----------------------|----|----|----|----|----|----|----|----|--|
|        |                                |                                                      | G                    | GB | GC | GI | B  | S  | SB | SC | C  |  |
| 102    | Volute                         | Fonte grise JL1040/ A 48 CL 35B                      | A1                   | A1 | A1 | -  | -  | -  | -  | -  | -  |  |
|        |                                | Bronze CC480K-GS/ B30 C90700                         | -                    | -  | -  | -  | A1 | -  | -  | -  | -  |  |
|        |                                | Fonte à graphite sphéroïdal JS1030/ A536 GR 60-40-18 | -                    | -  | -  | -  | -  | A1 | A1 | A1 | -  |  |
|        |                                | Acier inoxydable 1.4408/ A743 Gr CF8 M               | -                    | -  | -  | -  | -  | -  | -  | -  | A1 |  |
| 161    | Couvercle de corps conique     | Fonte grise JL1040/ A 48 CL 35B                      | A1                   | A1 | A1 | -  | -  | -  | -  | -  | -  |  |
|        |                                | Bronze CC480K-GS/ B30 C90700                         | -                    | -  | -  | -  | A1 | -  | -  | -  | -  |  |
|        |                                | Fonte à graphite sphéroïdal JS1030/ A536 GR 60-40-18 | -                    | -  | -  | -  | -  | A1 | A1 | A1 | -  |  |
|        |                                | Acier inoxydable 1.4408/ A743 Gr CF8 M               | -                    | -  | -  | -  | -  | -  | -  | -  | A1 |  |
| 161    | Couvercle de corps cylindrique | Fonte grise JL1040/ 48 CL 35B                        | A2                   | A2 | A2 | -  | -  | -  | -  | -  | -  |  |
|        |                                | Acier inoxydable 1.4408/ A743 Gr CF8 M               | -                    | -  | -  | -  | -  | -  | -  | -  | A2 |  |
|        |                                | Bronze CC480K-GS/ B30 C90700                         | -                    | -  | -  | -  | A2 | -  | -  | -  | -  |  |
| 210    | Arbre                          | Acier traité C45+N                                   | A1                   | A1 | A1 | -  | -  | A1 | A1 | A1 | -  |  |
|        |                                | Acier au chrome 1.4057+QT800                         | A2                   | A2 | A2 | -  | -  | A2 | A2 | A2 | -  |  |
|        |                                | Acier duplex 1.4462/ UNS S31803                      | A2                   | A2 | A2 | -  | A1 | A2 | A2 | A2 | A1 |  |
| 230    | Roue                           | Fonte grise JL1040/ A 48 CL 35B                      | A1                   | -  | -  | -  | -  | A1 | -  | -  | -  |  |
|        |                                | Bronze CC480K-GS/ B30 C90700                         | -                    | A1 | -  | -  | A1 | -  | A1 | -  | -  |  |
|        |                                | Acier inoxydable 1.4408/ A743 Gr CF8 M               | -                    | -  | A1 | -  | -  | -  | -  | A1 | A1 |  |
| 330    | Support de palier              | Fonte grise JL1040/ A 48 CL 35B                      | A1                   | A1 | A1 | -  | A1 | A1 | A1 | A1 |    |  |
| 400    | Joints                         | DPAF sans amiante                                    | A1                   | A1 | A1 | -  | A1 | A1 | A1 | A1 | A1 |  |
| 502.01 | Bague d'usure côté aspiration  | Fonte grise JL/ CI                                   | A1                   | A1 | A1 | -  | -  | A1 | A1 | A1 | -  |  |
|        |                                | Acier inoxydable (acier CrNiMo)                      | A2                   | A2 | A2 | -  | -  | -  | -  | -  | A2 |  |
|        |                                | Bronze CC495K-GS                                     | -                    | A2 | -  | -  | A1 | -  | A  | -  | -  |  |
| 502.02 | Bague d'usure côté refoulement | Fonte grise JL / CI                                  | A1                   | A1 | A1 | -  | -  | A1 | A1 | A1 | -  |  |
|        |                                | Acier inoxydable (acier CrNiMo)                      | A2                   | A2 | A2 | -  | -  | -  | -  | -  | A2 |  |
|        |                                | Bronze CC495K-GS                                     | -                    | A2 | -  | -  | A1 | -  | A  | -  | -  |  |
| 523    | Chemise d'arbre                | Acier inoxydable (acier CrNiMo)                      | A1                   | A1 | A1 | -  | A1 | A1 | A1 | A1 | A1 |  |
| 524    | Chemise d'arbre sous garniture | Acier inoxydable (acier CrNiMo)                      | -                    | -  | -  | -  | A1 | -  | -  | -  | -  |  |
|        |                                | Acier au chrome 1.4122HV500+80                       | A1                   | A1 | A1 | -  | -  | -  | -  | -  | A1 |  |
| 902    | Goujons filetés                | Acier 8.8                                            | A1                   | A1 | A1 | -  | -  | A1 | A1 | A1 | -  |  |
|        |                                | A4-70/ A193 Gr B8M CL2                               | A2                   | A2 | A2 | -  | A1 | A2 | A2 | A2 | A1 |  |
| 903    | Bouchon                        | ST                                                   | A1                   | A1 | A1 | -  | -  | A1 | A1 | A1 | -  |  |
|        |                                | A4/ AISI 316                                         | A2                   | A2 | A2 | -  | A1 | A2 | A2 | A2 | A1 |  |
| 920    | Écrou                          | 8+A2A/ 8+B633 SC1 TP3                                | A1                   | A1 | A1 | -  | -  | A1 | A1 | A1 | -  |  |
|        |                                | A4/ AISI 316                                         | A2                   | A2 | A2 | -  | A1 | A2 | A2 | A2 | A1 |  |
| 920.95 | Écrou de roue                  | A4/ AISI 316                                         | A2                   | A2 | A1 | -  | A1 | A2 | A1 | A1 | A1 |  |
|        |                                | Acier 8                                              | A1                   | A1 | -  | -  | -  | A1 | -  | -  | -  |  |

**Prix**
**Etanorm pompe arbre nu - Pompe standard suivant EN 733**

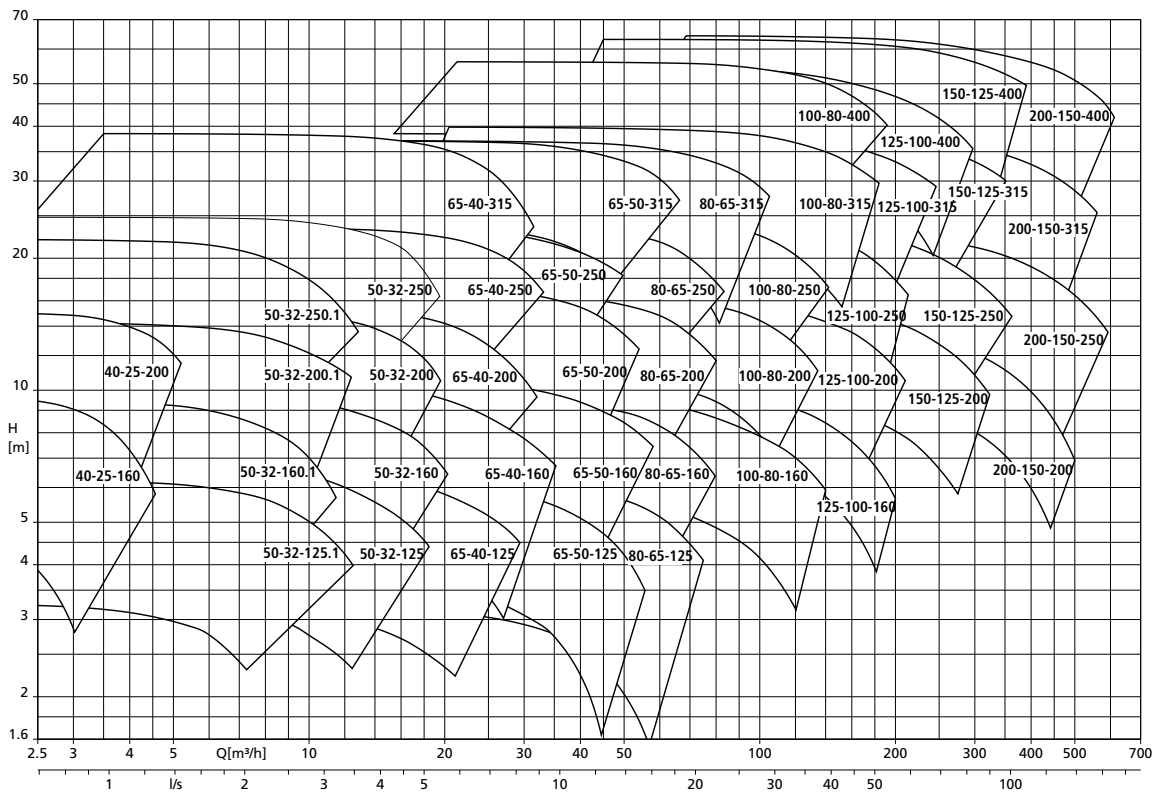
| Etanorm       | 2 pôles | 4 pôles | Poids<br>[kg] | PRIX H.T.          |                    |
|---------------|---------|---------|---------------|--------------------|--------------------|
|               |         |         |               | GG01 / GG10 / GG11 | GB01 / GB10 / GB11 |
| 040-025-160   | X       | X       | 30,5          | 1 813,05           | 2 179,21           |
| 040-025-200   | X       | X       | 39,7          | 1 994,15           | 2 282,92           |
| 050-032-125.1 | X       | X       | 29,7          | 2 082,21           | 2 368,09           |
| 050-032-125   | X       | X       | 29,6          | 2 091,00           | 2 386,49           |
| 050-032-160.1 | X       | X       | 30,9          | 2 106,40           | 2 394,11           |
| 050-032-160   | X       | X       | 30,3          | 2 155,76           | 2 434,14           |
| 050-032-200.1 | X       | X       | 40,7          | 2 398,49           | 2 728,44           |
| 050-032-200   | X       | X       | 40,8          | 2 489,02           | 2 793,88           |
| 050-032-250.1 | X       | X       | 49,2          | 2 743,40           | 3 188,31           |
| 050-032-250   | X       | X       | 49,3          | 22 801,7           | 3 242,46           |
| 065-040-125   | X       | X       | 32,2          | 2 116,93           | 2 414,88           |
| 065-040-160   | X       | X       | 32,9          | 2 228,61           | 2 514,80           |
| 065-040-200   | X       | X       | 43,1          | 2 495,53           | 2 809,07           |
| 065-040-250   | X       | X       | 50,3          | 2 906,07           | 3 240,95           |
| 065-040-315   | -       | X       | 84,4          | 3 549,17           | 4 208,76           |
| 065-040-315   | X       | -       | 93,2          | 3 619,91           | 4 279,50           |
| 065-050-125   | X       | X       | 34,8          | 2 257,99           | 2 571,12           |
| 065-050-160   | X       | X       | 36,3          | 2 319,96           | 2 631,64           |
| 065-050-200   | X       | X       | 44,8          | 2 605,20           | 2 913,53           |
| 065-050-250   | X       | X       | 51,3          | 3 031,21           | 3 380,00           |
| 065-050-315   | -       | X       | 87,2          | 3 817,75           | 4 517,67           |
| 065-050-315   | X       | -       | 96,0          | 3 888,49           | 4 588,41           |
| 080-065-125   | X       | X       | 42,4          | 2 426,83           | 2 747,64           |
| 080-065-160   | X       | X       | 44,4          | 2 553,55           | 2 844,66           |
| 080-065-200   | X       | X       | 50,3          | 2 775,53           | 3 104,56           |
| 080-065-250   | X       | X       | 77,6          | 3 388,61           | 3 883,80           |
| 080-065-315   | -       | X       | 93,5          | 3 875,58           | 4 596,42           |
| 080-065-315   | X       | -       | 105,0         | 3 965,61           | 4 686,45           |
| 100-080-160   | X       | X       | 52,0          | 2 676,16           | 2 998,53           |
| 100-080-200   | X       | X       | 70,4          | 3 307,24           | 3 755,73           |
| 100-080-250   | X       | X       | 86,9          | 3 810,35           | 4 352,41           |
| 100-080-315   | -       | X       | 99,0          | 4 286,26           | 5 060,94           |
| 100-080-315   | X       | -       | 110,4         | 4 376,28           | 5 150,96           |
| 100-080-400   | -       | X       | 147,8         | 7 081,48           | 8 346,26           |
| 125-100-160   | X       | X       | 91,4          | 3 572,97           | 4 133,81           |
| 125-100-200   | X       | X       | 84,4          | 3 629,78           | 4 203,50           |
| 125-100-250   | X       | X       | 98,2          | 4 214,08           | 4 822,53           |
| 125-100-315   | -       | X       | 109,6         | 4 736,86           | 5 480,63           |
| 125-100-315   | X       | -       | 121,0         | 4 826,88           | 5 570,66           |
| 125-100-400   | -       | X       | 162,8         | 7 697,56           | 9 038,78           |
| 150-125-200   | X       | X       | 108,3         | 4 720,24           | 5 267,32           |
| 150-125-250   | -       | X       | 120,9         | 4 782,37           | 5 442,65           |
| 150-125-315   | -       | X       | 151,9         | 7 134,51           | 8 183,32           |
| 150-125-400   | -       | X       | 175,0         | 8 320,92           | 9 773,81           |
| 200-150-200   | -       | X       | 165,8         | 6 810,44           | 7 706,60           |
| 200-150-250   | -       | X       | 161,7         | 7 322,70           | 8 185,13           |
| 200-150-315   | -       | X       | 178,2         | 8 365,11           | 9 471,74           |
| 200-150-400   | -       | X       | 203,7         | 10 200,79          | 11 303,61          |

## Grilles de sélection

Etanorm,  $n = 2900 \text{ min}^{-1}$

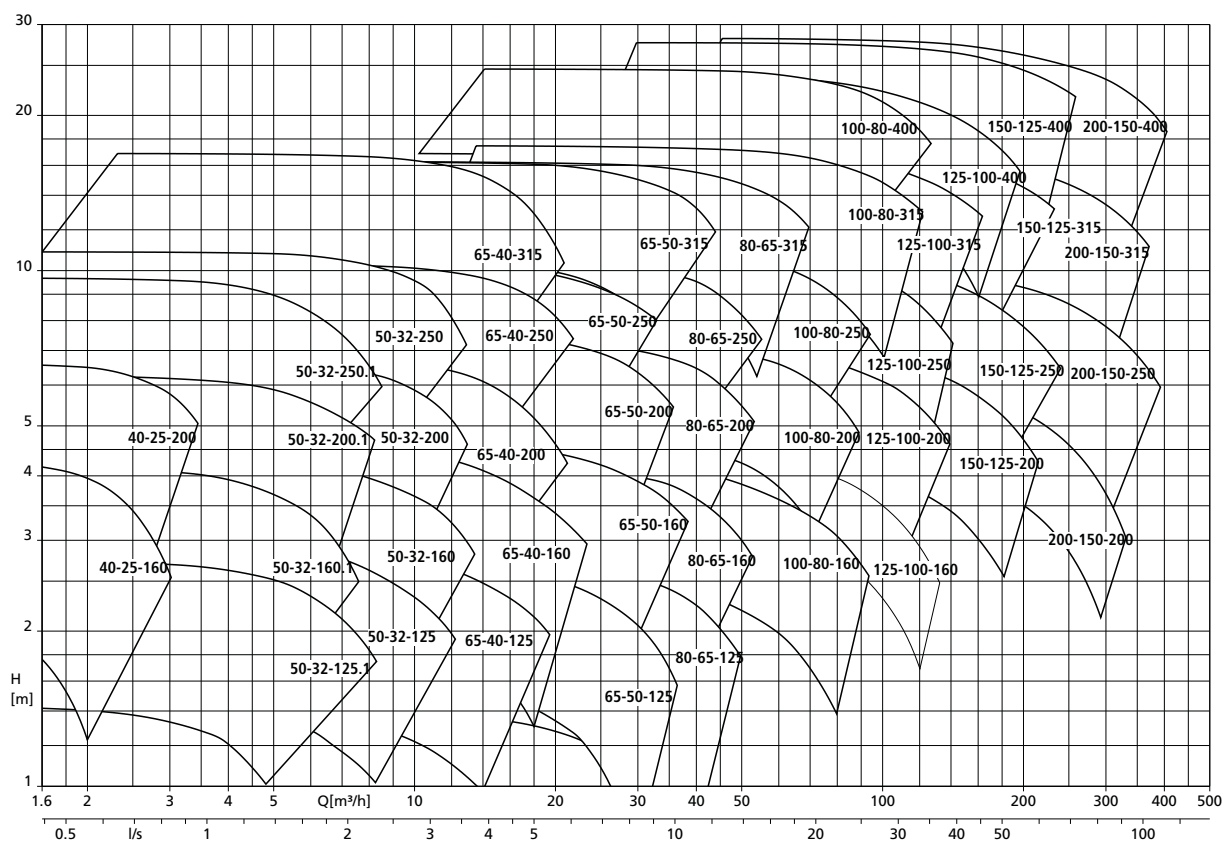


Etanorm,  $n = 1450 \text{ min}^{-1}$



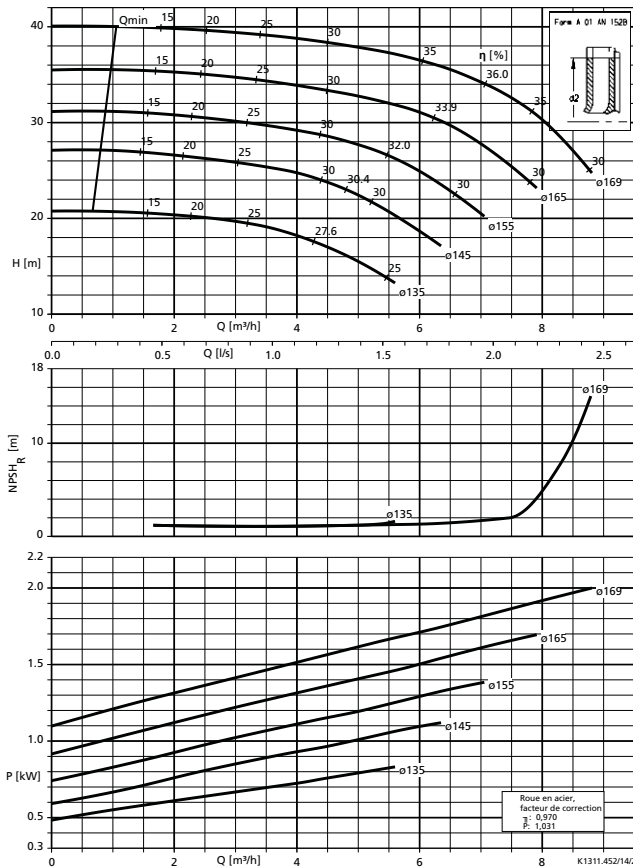
## Grilles de sélection

Etanorm,  $n = 960 \text{ min}^{-1}$

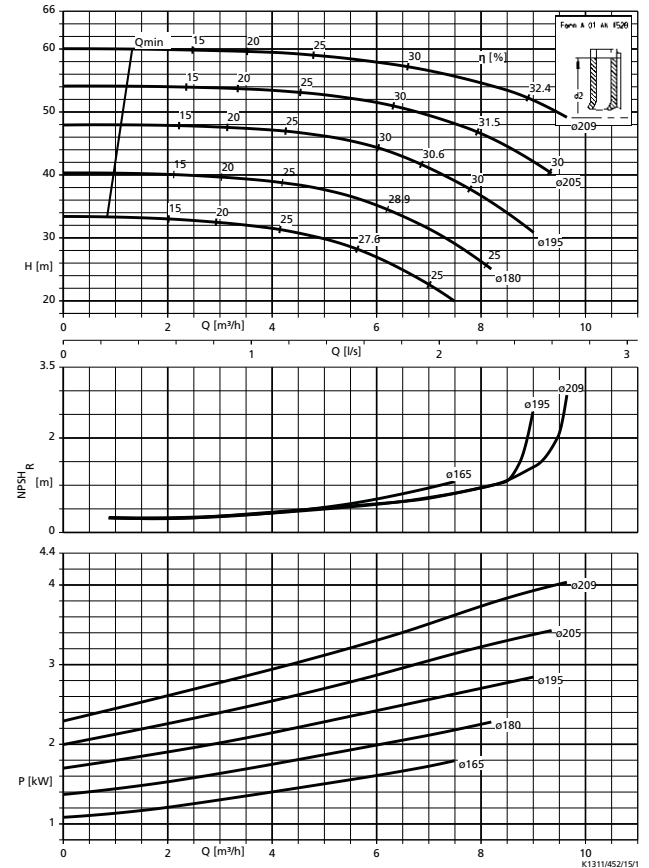


## Courbes caractéristiques

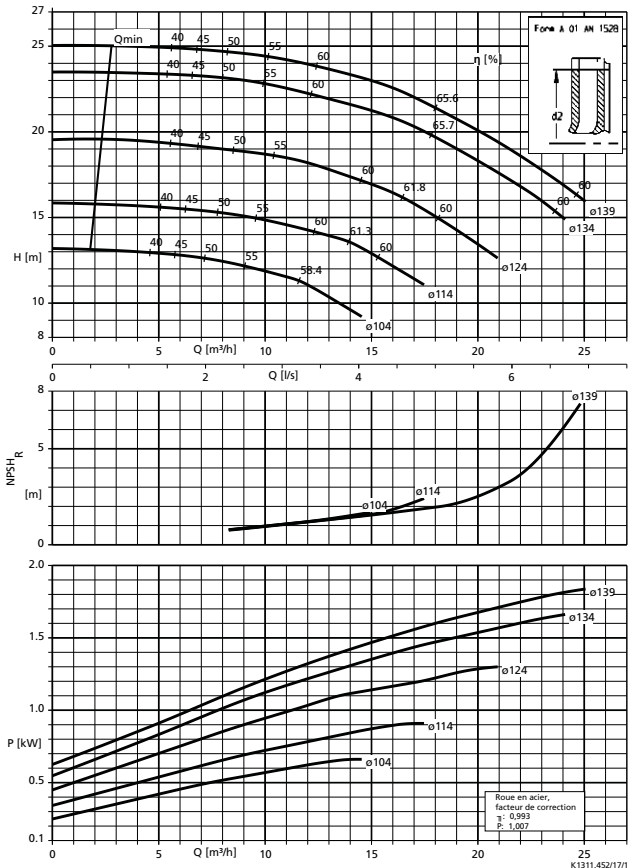
Etanorm/Etabloc 040-025-160,  $n \approx 2900 \text{ min}^{-1}$



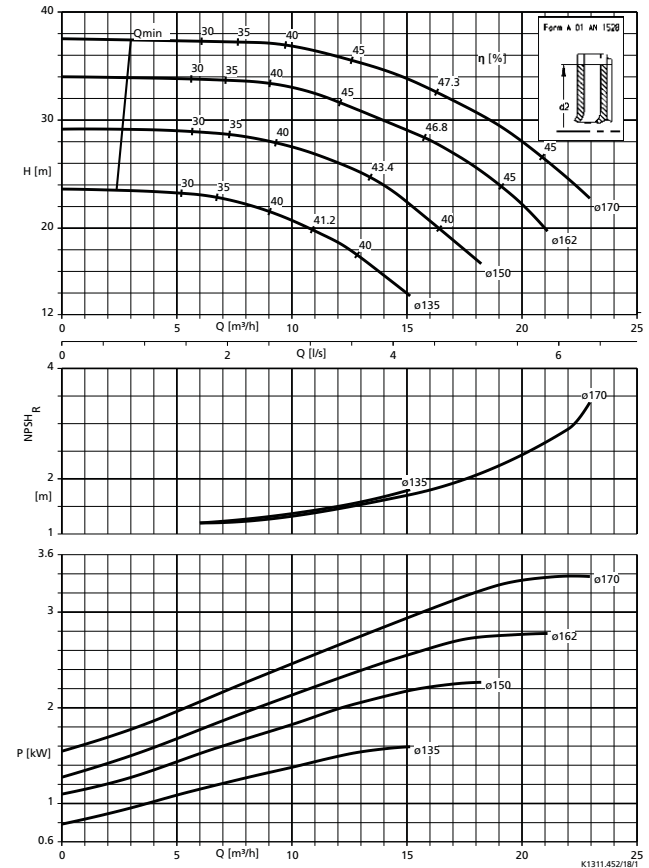
Etanorm/Etabloc 040-025-200,  $n \approx 2900 \text{ min}^{-1}$



Etanorm/Etabloc 050-032-125.1,  $n \approx 2900 \text{ min}^{-1}$

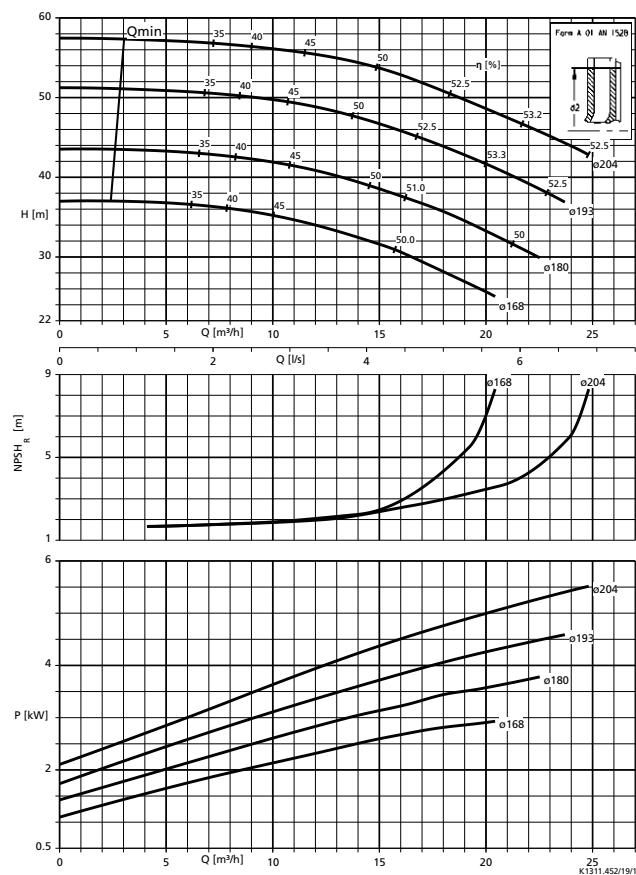


Etanorm/Etabloc 050-032-160.1,  $n \approx 2900 \text{ min}^{-1}$

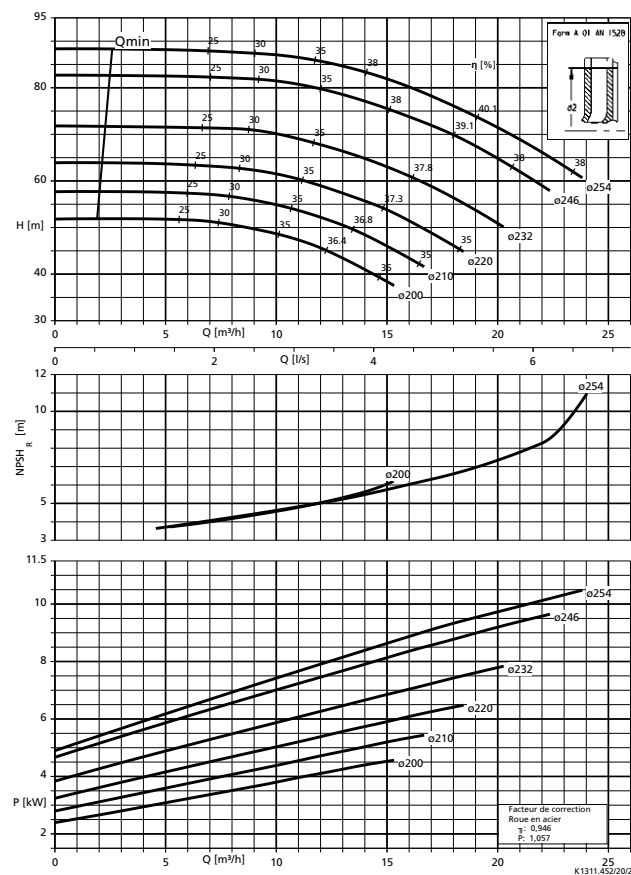


## Courbes caractéristiques

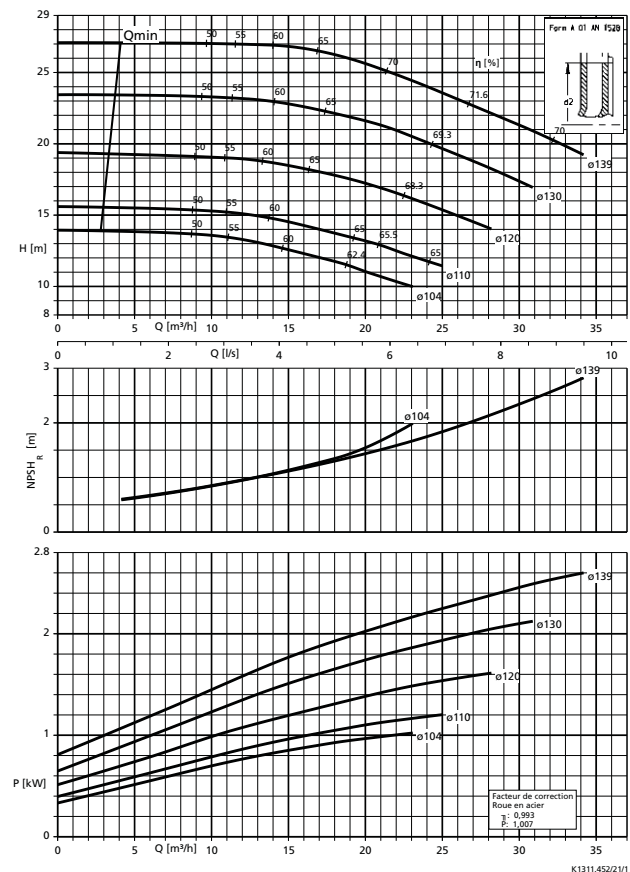
**Etanorm/Etabloc 050-032-200.1,  $n \approx 2900 \text{ min}^{-1}$**



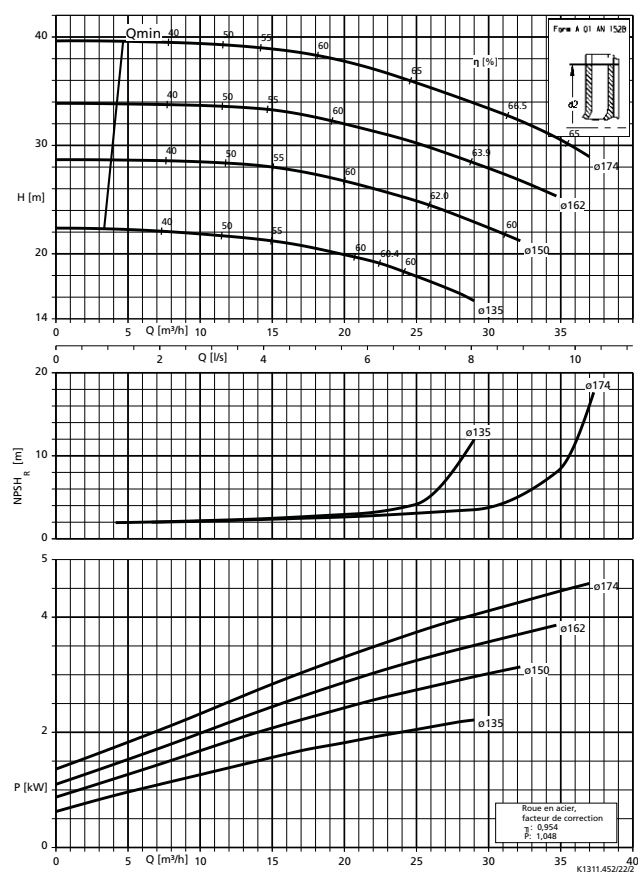
**Etanorm/Etabloc 050-032-250.1,  $n \approx 2900 \text{ min}^{-1}$**



**Etanorm/Etabloc 050-032-125,  $n \approx 2900 \text{ min}^{-1}$**

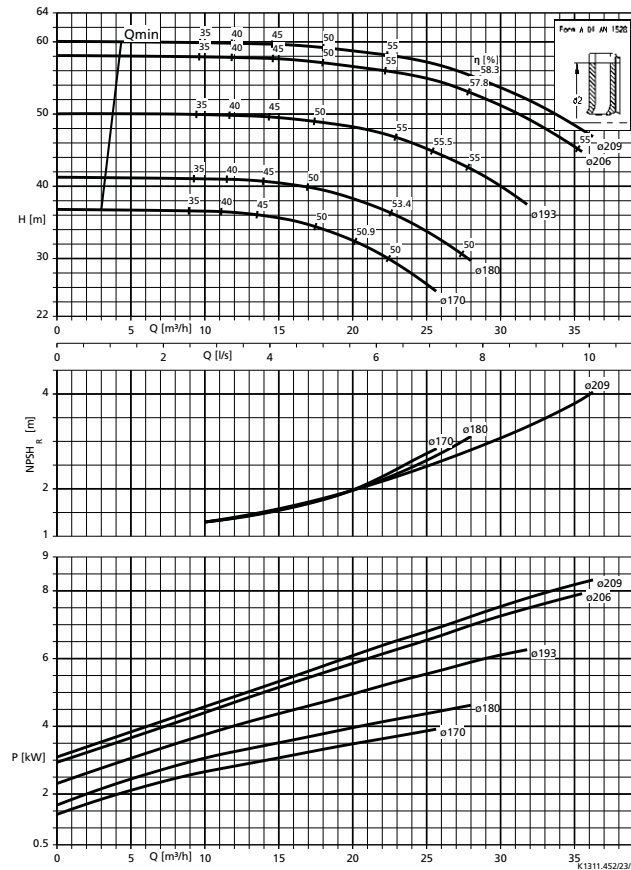


**Etanorm/Etabloc 050-032-160,  $n \approx 2900 \text{ min}^{-1}$**

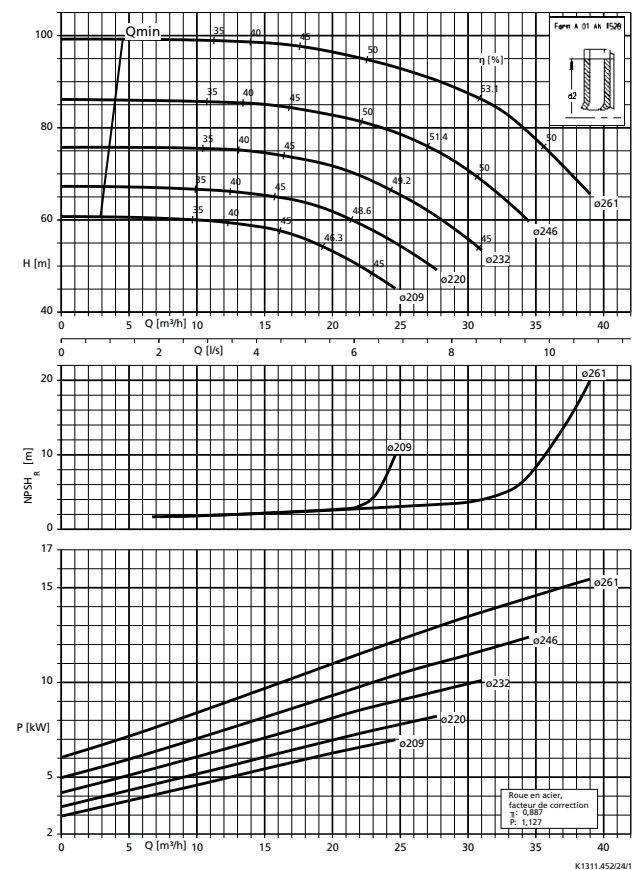


## Courbes caractéristiques

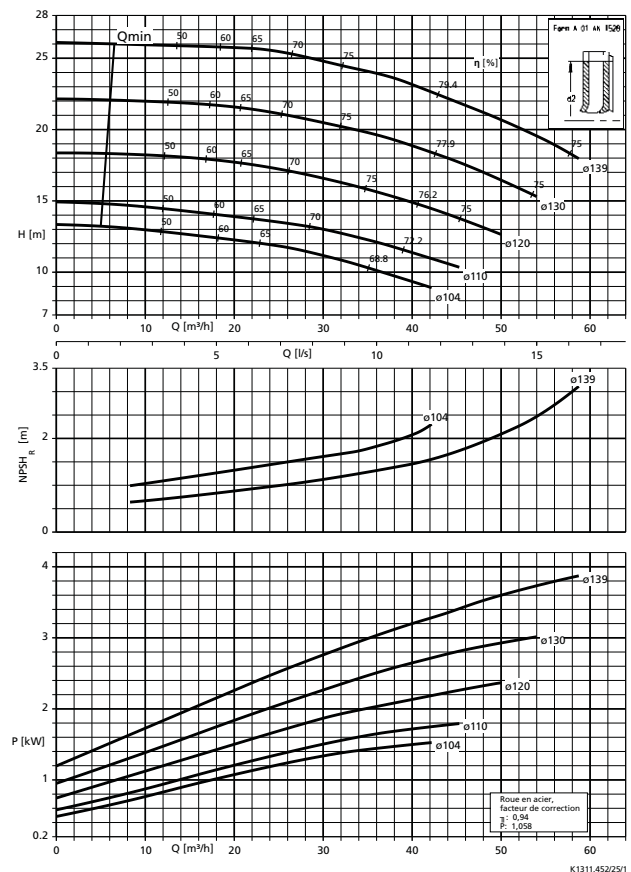
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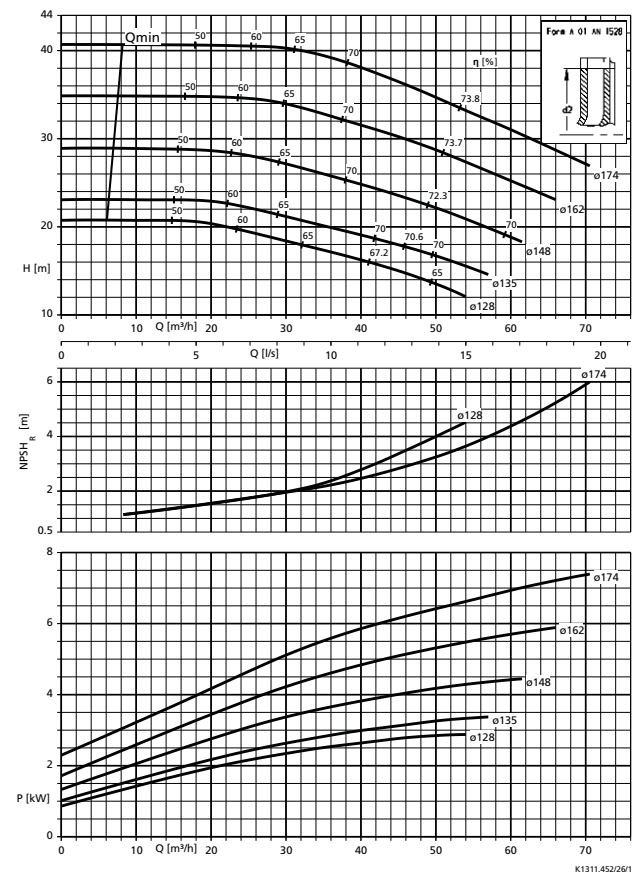
**Etanorm/Etabloc 050-032-250,  $n \approx 2900 \text{ min}^{-1}$**



**Etanorm/Etabloc 065-040-125,  $n \approx 2900 \text{ min}^{-1}$**



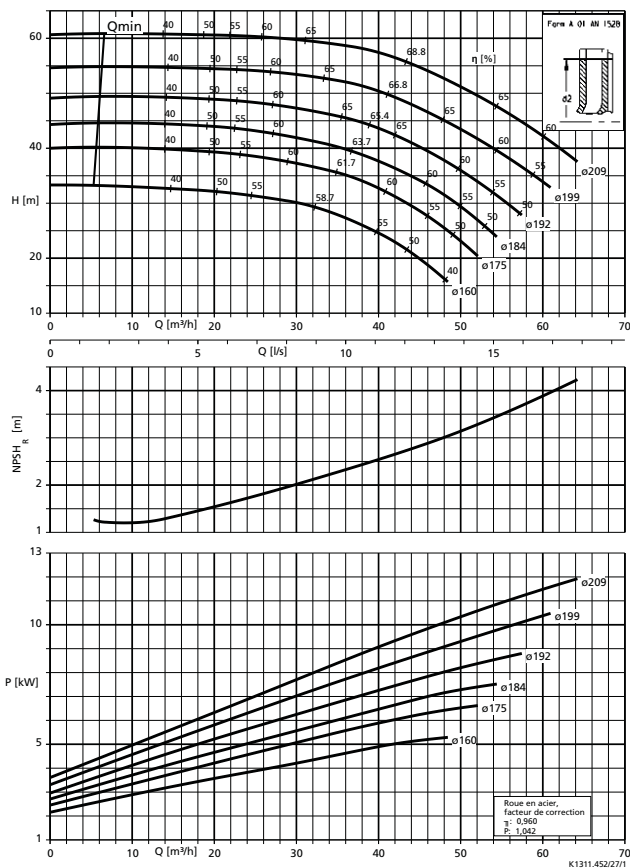
**Etanorm/Etabloc 65-040-160,  $n \approx 2900 \text{ min}^{-1}$**



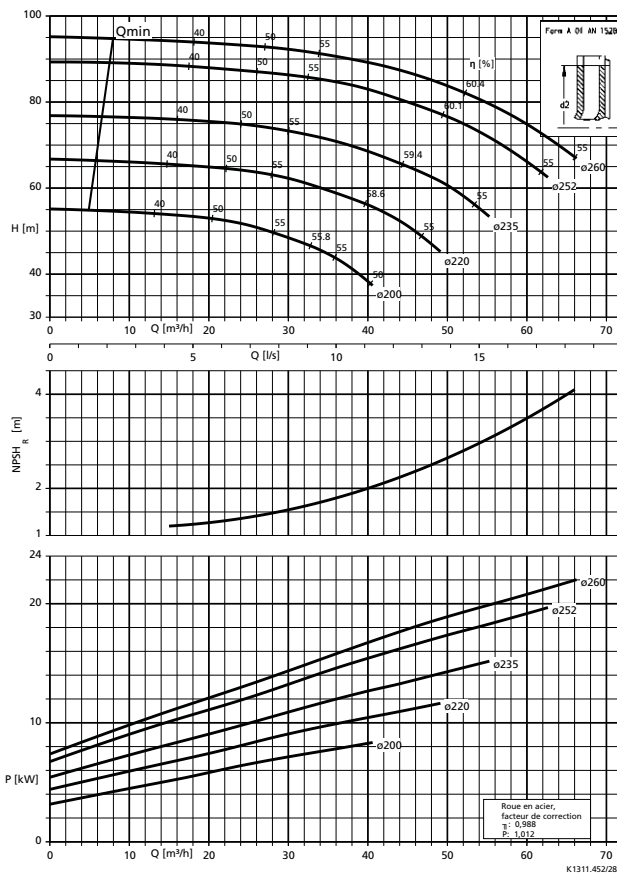
1) DN = EN 1092-2, PN 16

## Courbes caractéristiques

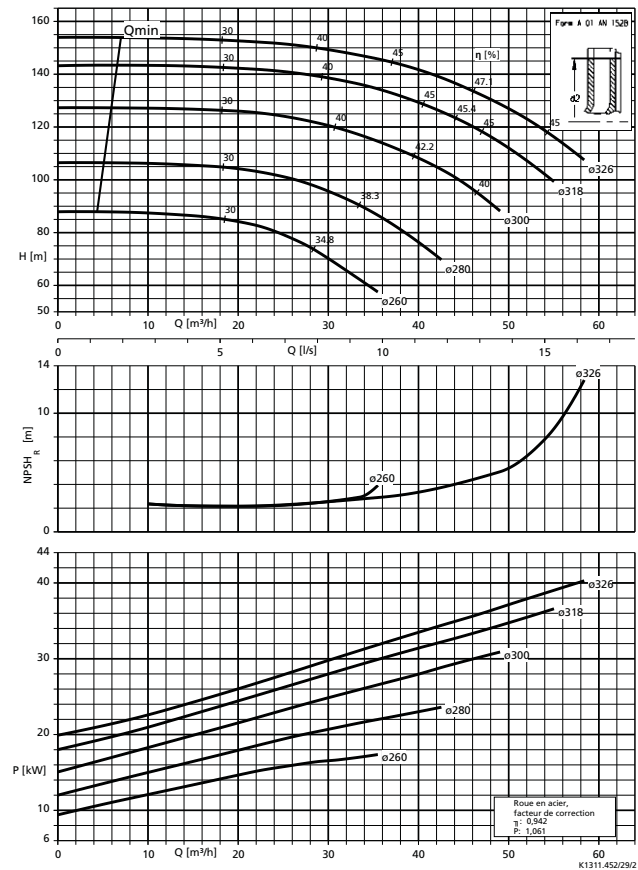
Etanorm/Etabloc 065-040-200,  $n \approx 2900 \text{ min}^{-1}$



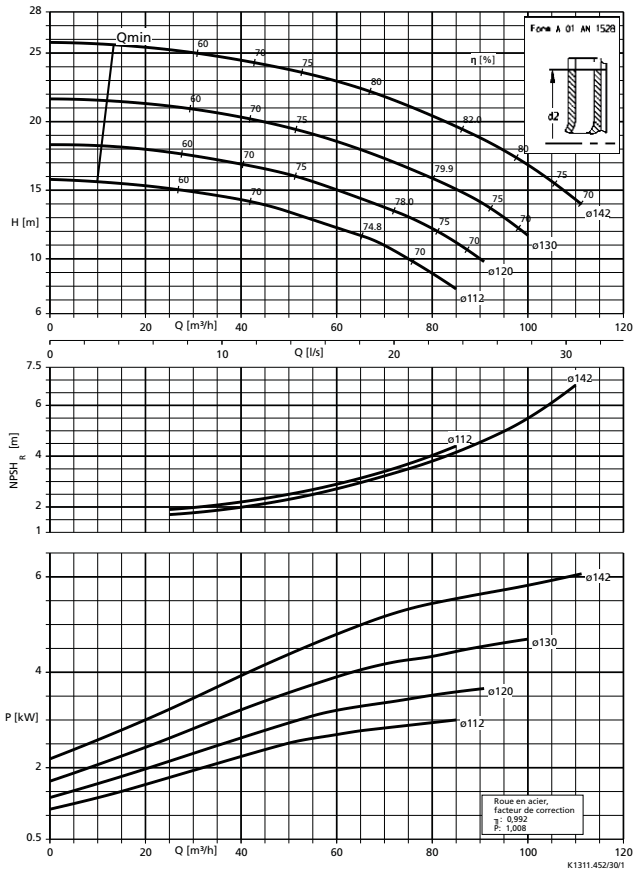
Etanorm/Etabloc 065-040-250,  $n \approx 2900 \text{ min}^{-1}$



Etanorm 065-040-315,  $n \approx 2900 \text{ min}^{-1}$

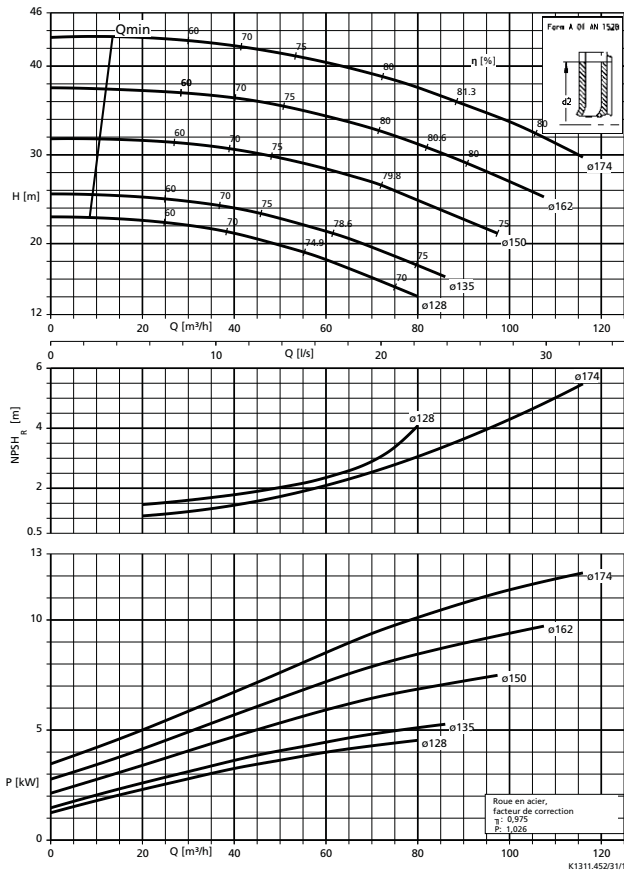


Etanorm/Etabloc 65-050-125,  $n \approx 2900 \text{ min}^{-1}$

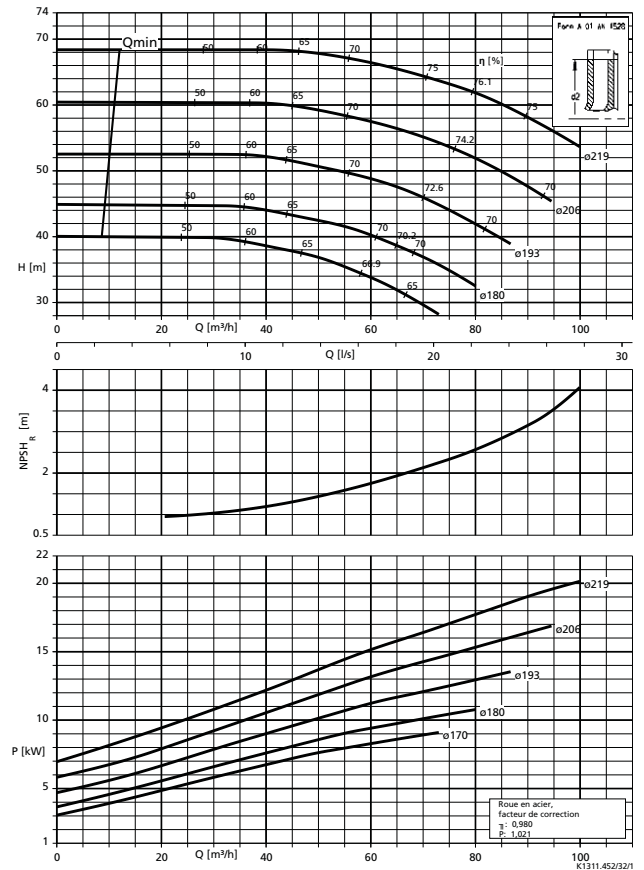


## Courbes caractéristiques

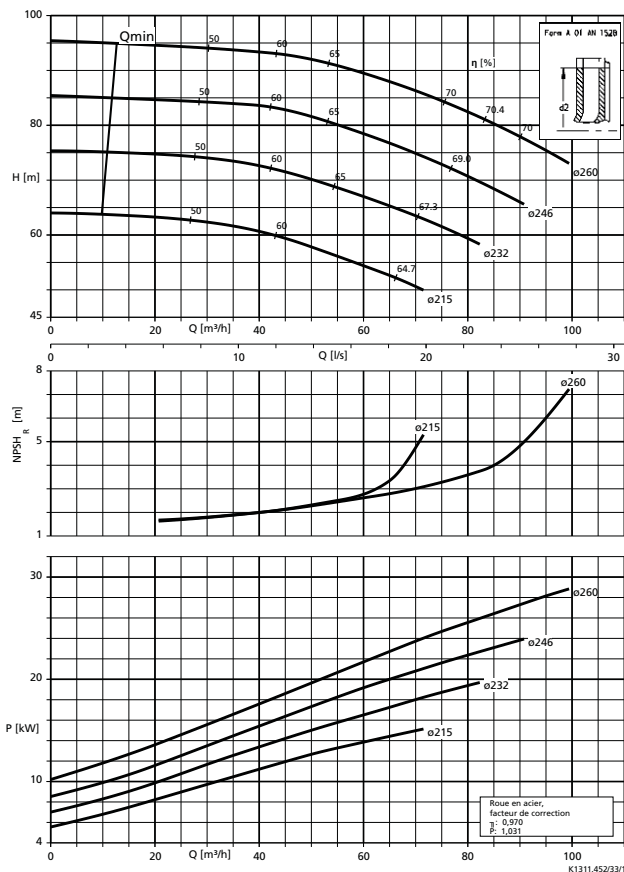
Etanorm/Etabloc 065-050-160,  $n \approx 2900 \text{ min}^{-1}$ ,



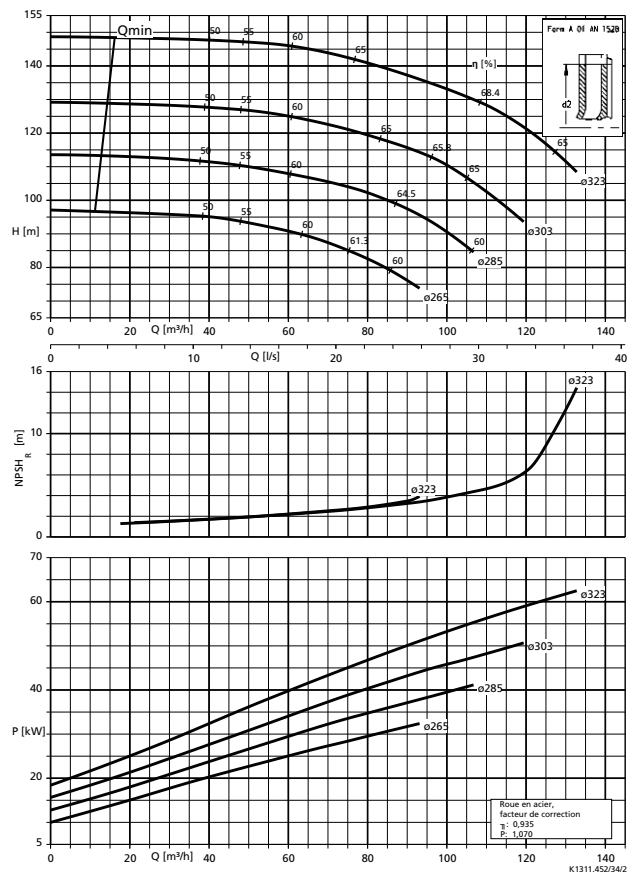
Etanorm/Etabloc 065-050-200,  $n \approx 2900 \text{ min}^{-1}$



Etanorm/Etabloc 065-050-250,  $n \approx 2900 \text{ min}^{-1}$

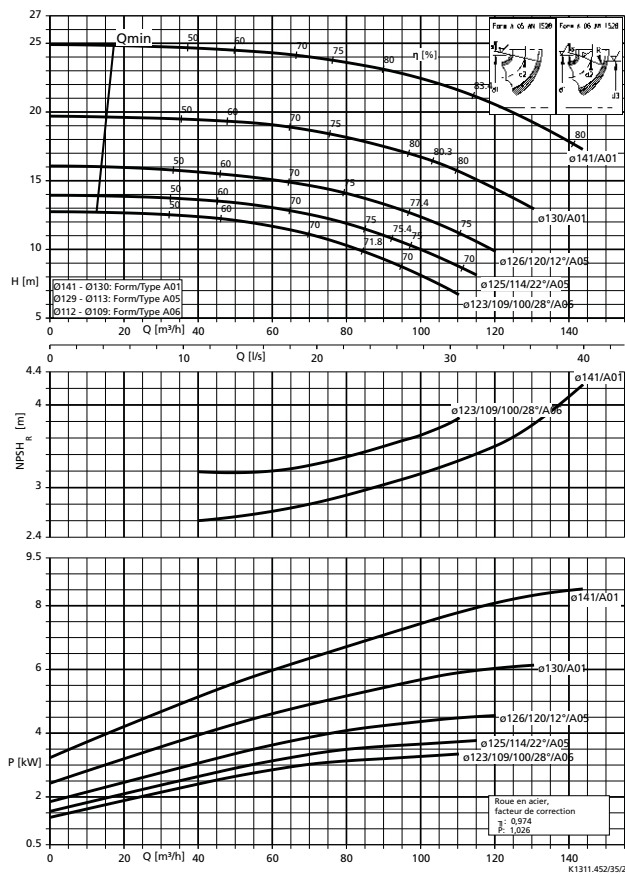


Etanorm 065-050-315,  $n \approx 2900 \text{ min}^{-1}$

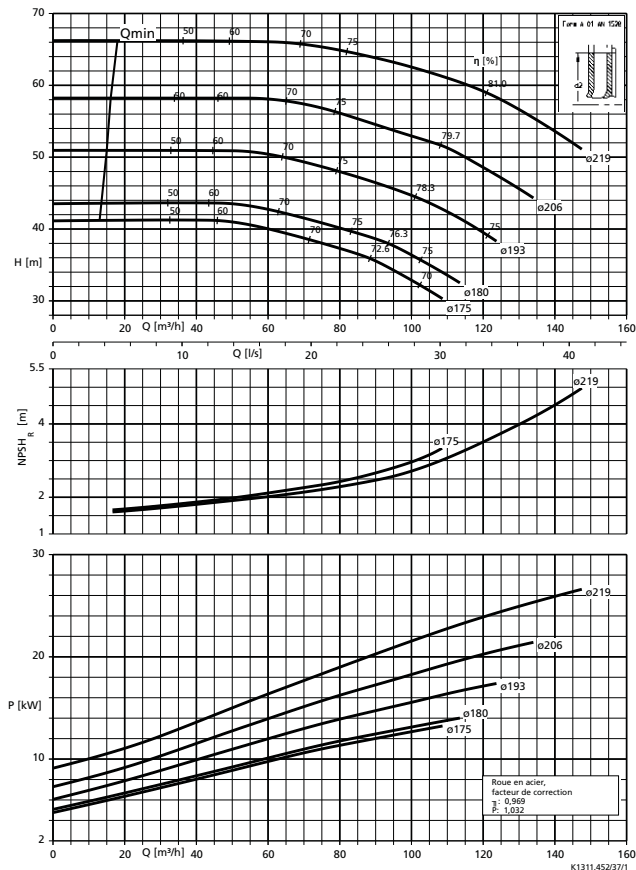


## Courbes caractéristiques

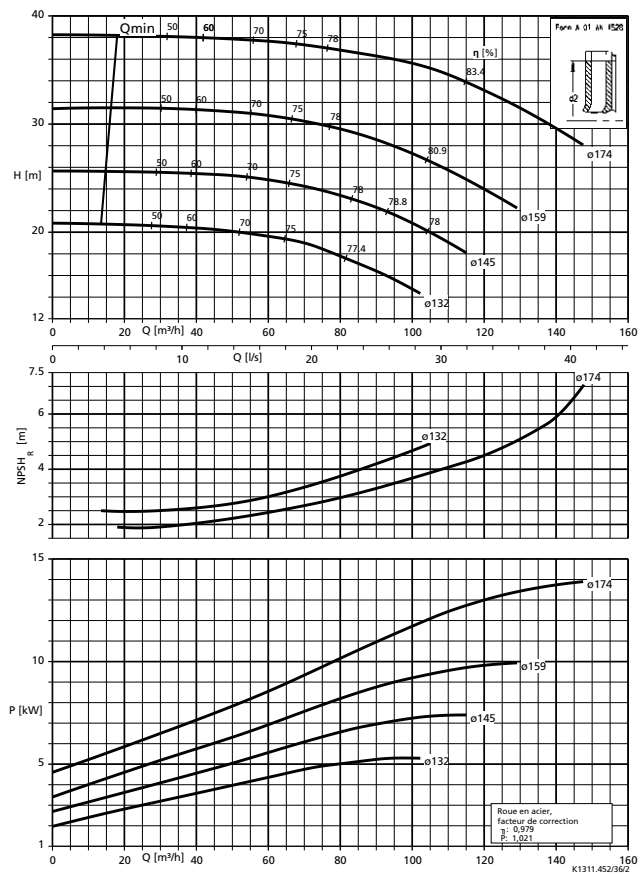
Etanorm/Etabloc 080-065-125,  $n \approx 2900 \text{ min}^{-1}$



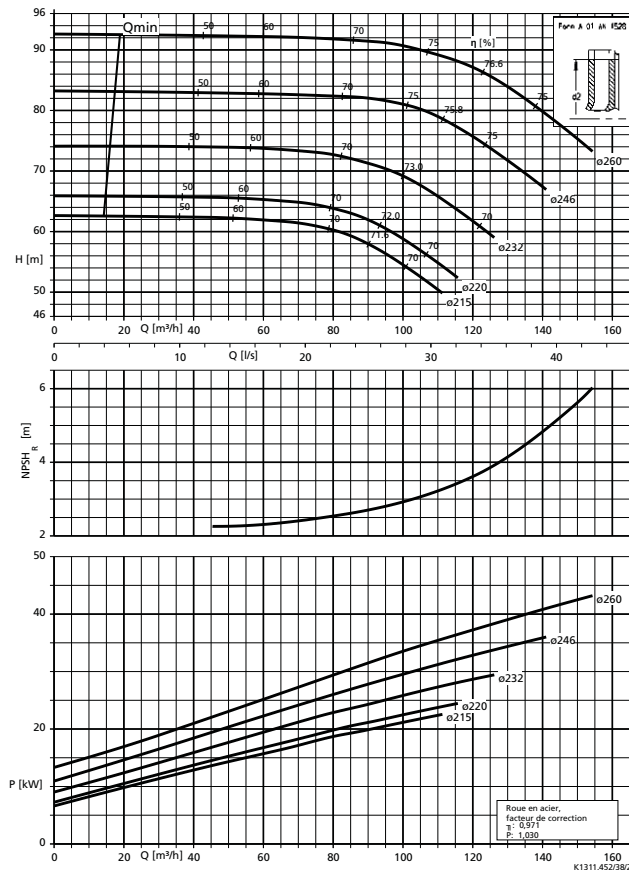
Etanorm/Etabloc 080-065-200,  $n \approx 2900 \text{ min}^{-1}$



Etanorm/Etabloc 080-065-160,  $n \approx 2900 \text{ min}^{-1}$

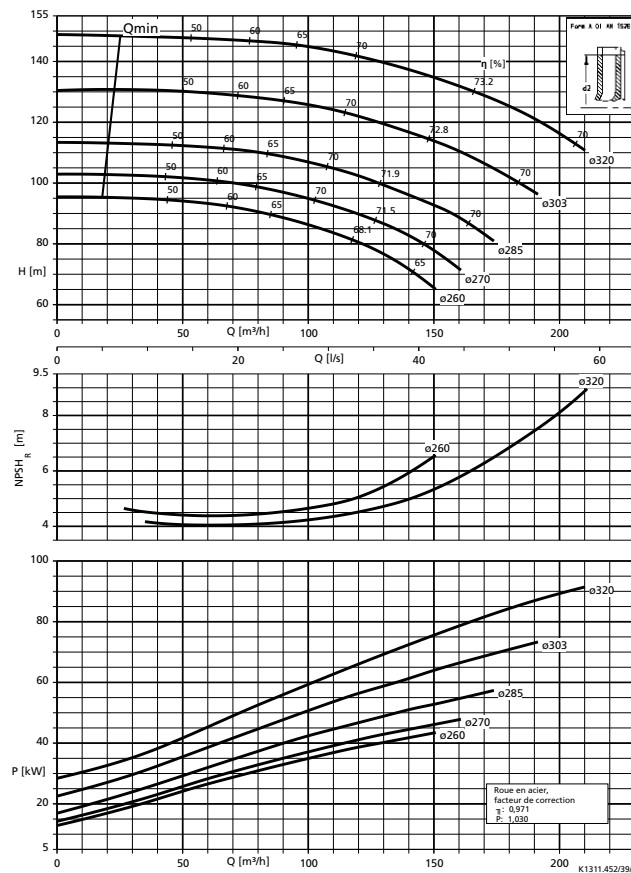


Etanorm/Etabloc 080-065-250,  $n \approx 2900 \text{ min}^{-1}$

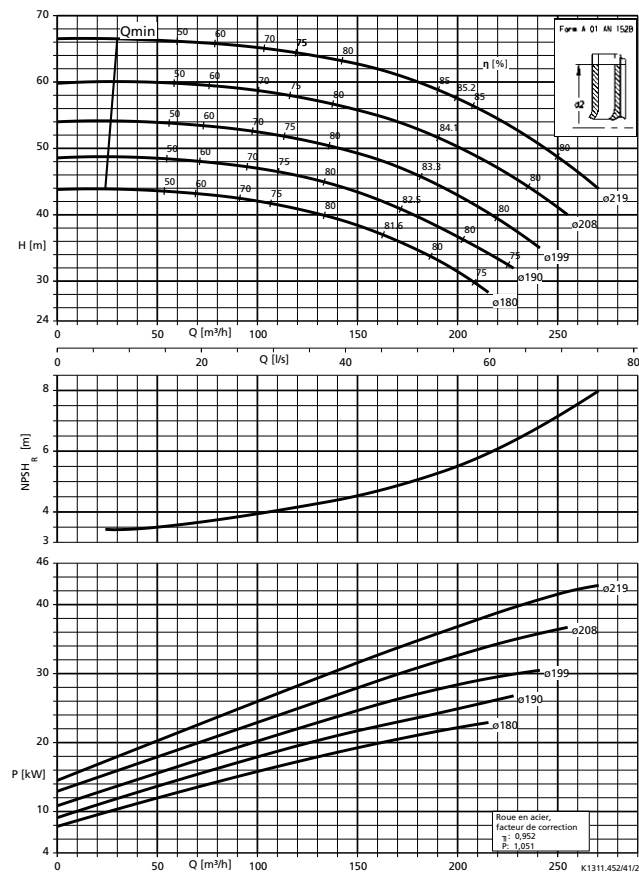


## Courbes caractéristiques

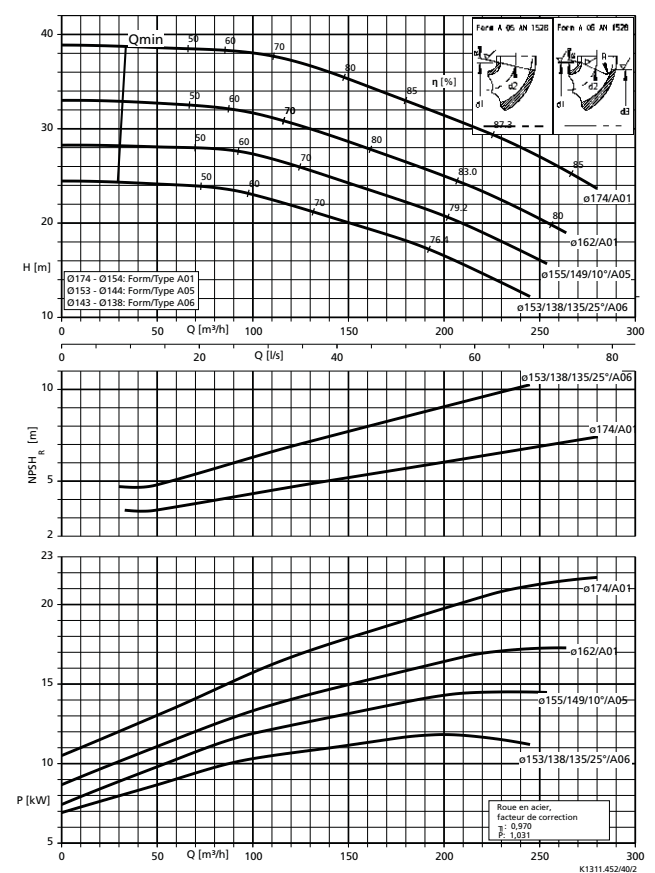
**Etanorm 080-065-315,  $n \approx 2900 \text{ min}^{-1}$**



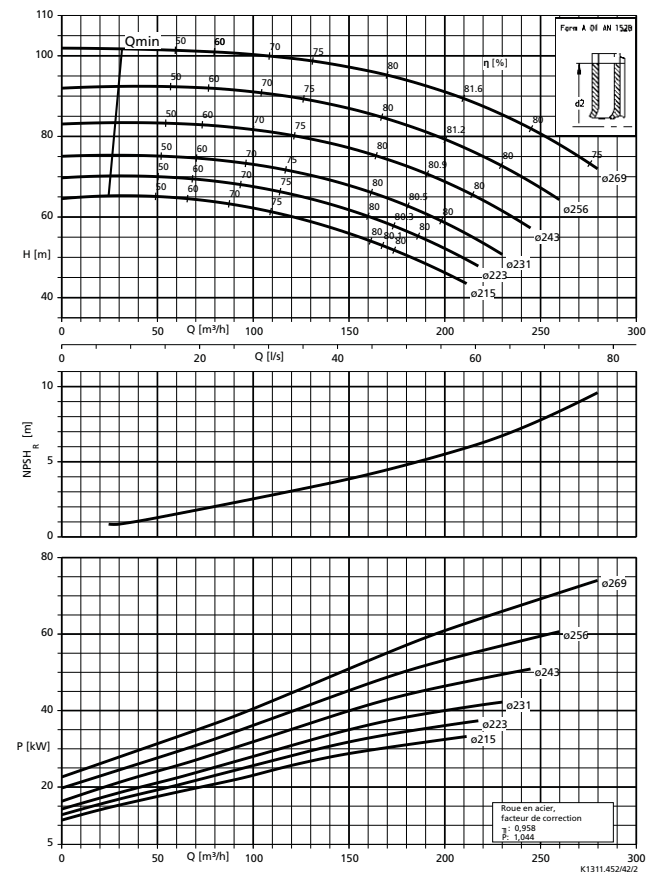
**Etanorm/Etabloc 100-080-200,  $n \approx 2900 \text{ min}^{-1}$**



**Etanorm/Etabloc 100-080-160,  $n \approx 2900 \text{ min}^{-1}$**

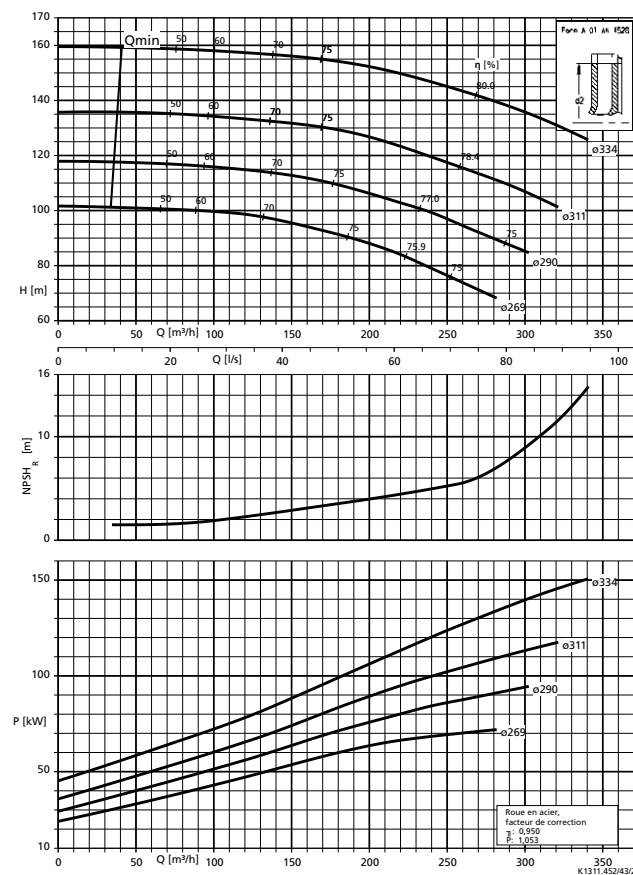


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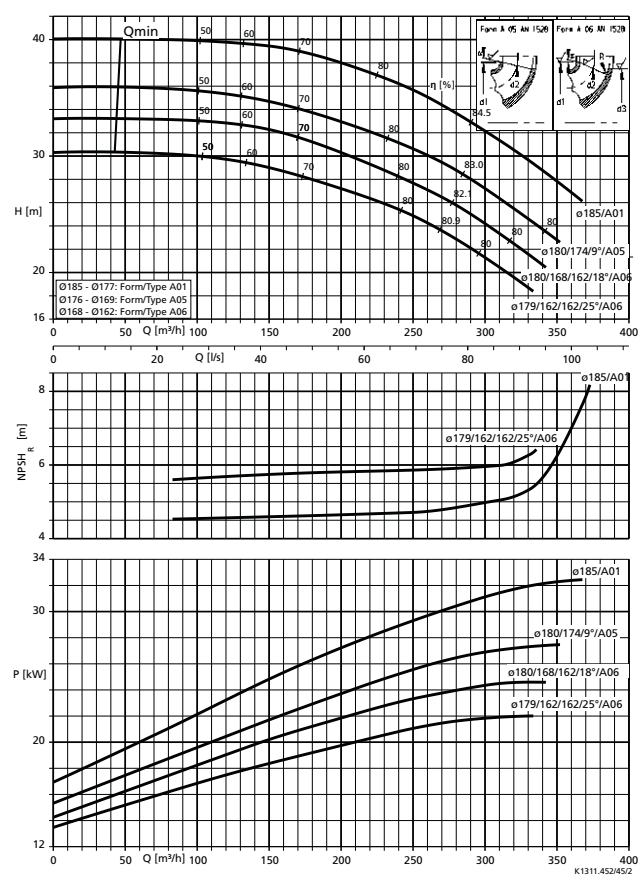


## Courbes caractéristiques

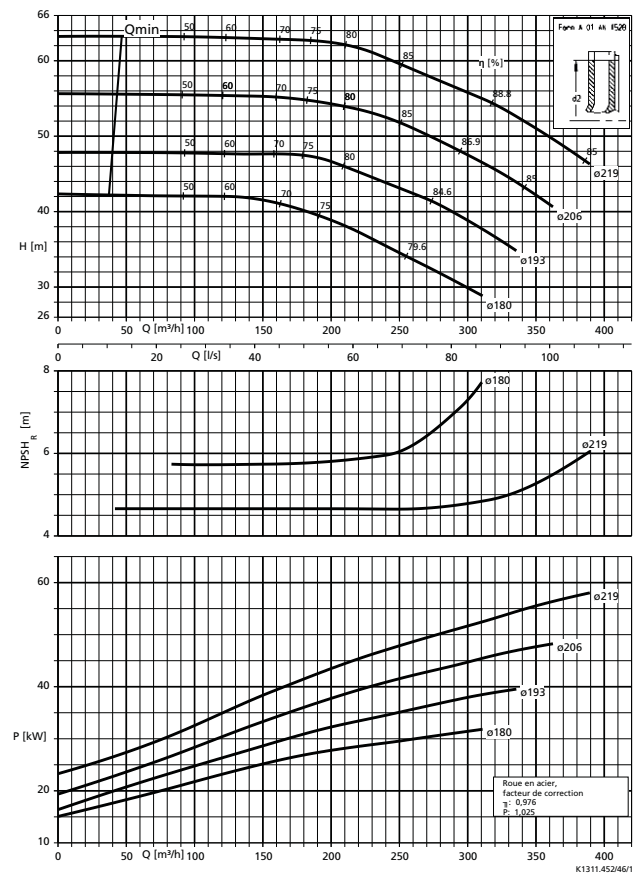
Etanorm 100-080-315,  $n \approx 2900 \text{ min}^{-1}$



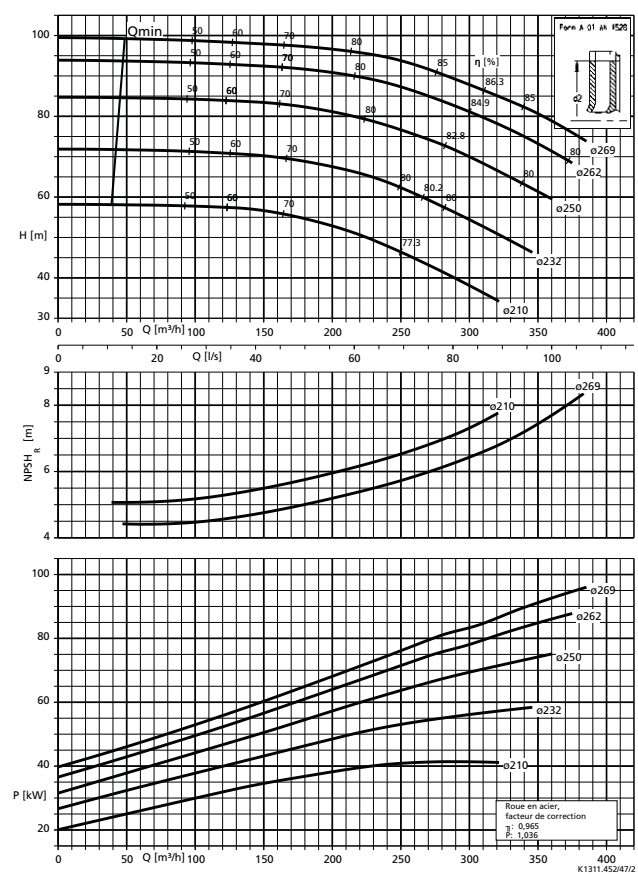
Etanorm/Etabloc 125-100-160,  $n \approx 2900 \text{ min}^{-1}$



Etanorm/Etabloc 125-100-200,  $n \approx 2900 \text{ min}^{-1}$

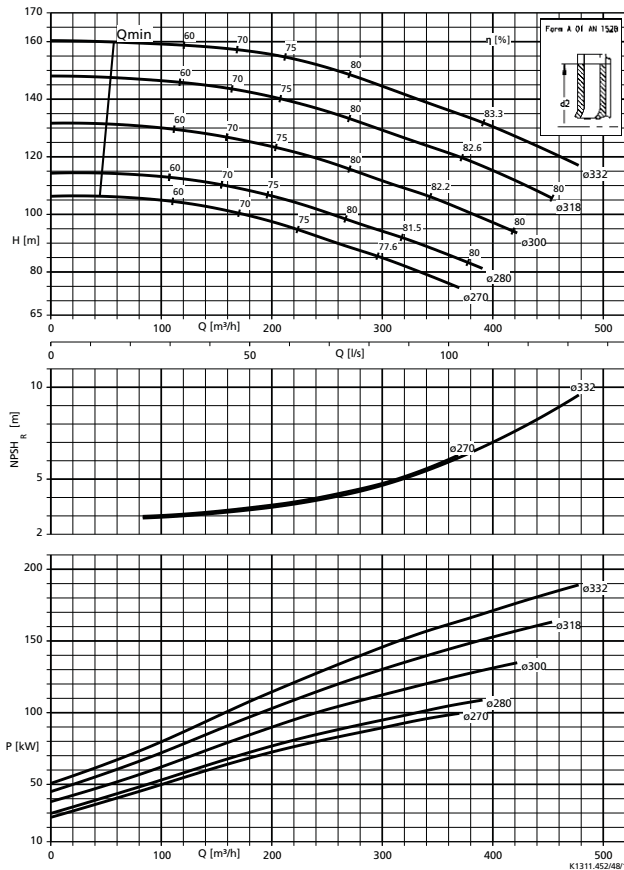


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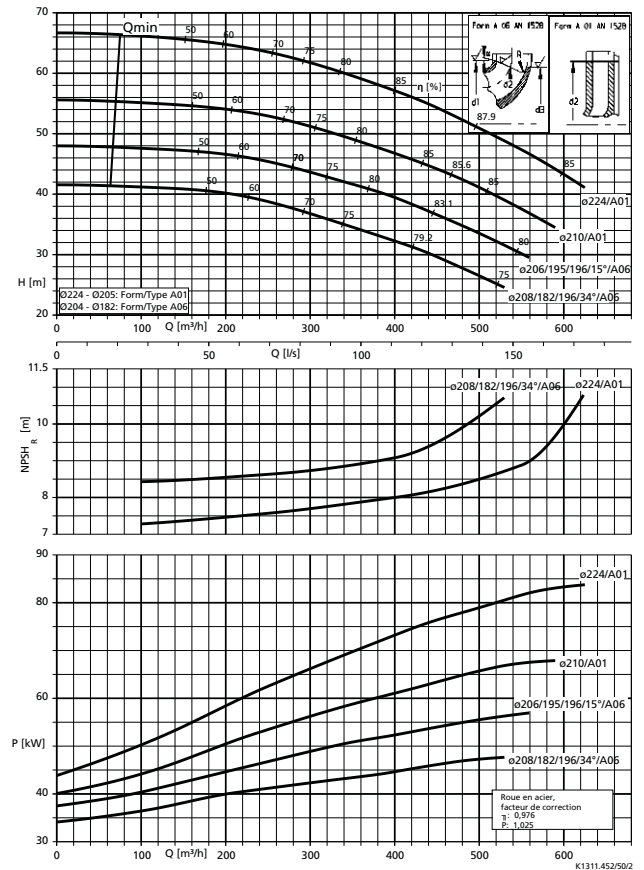


## Courbes caractéristiques

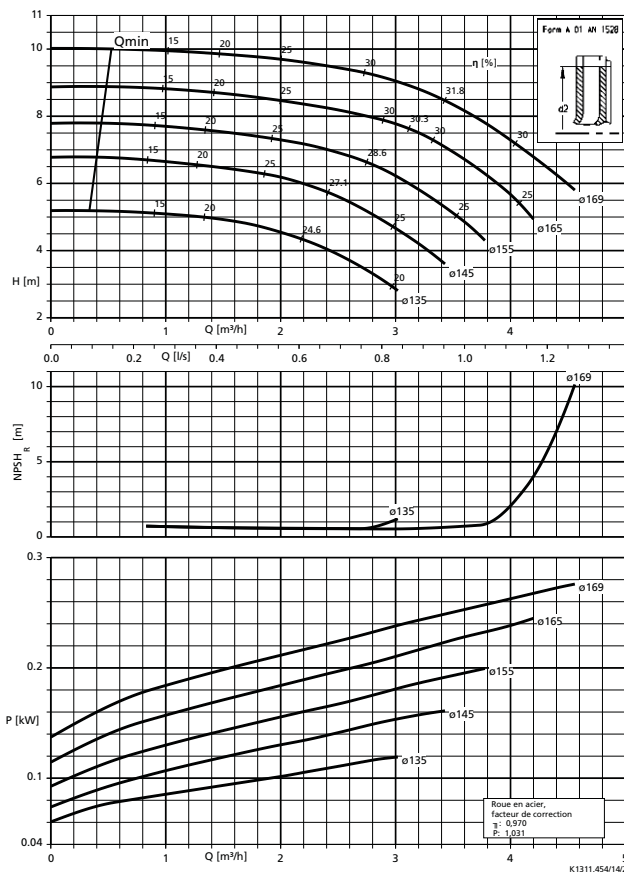
Etanorm 125-100-315,  $n \approx 2900 \text{ min}^{-1}$



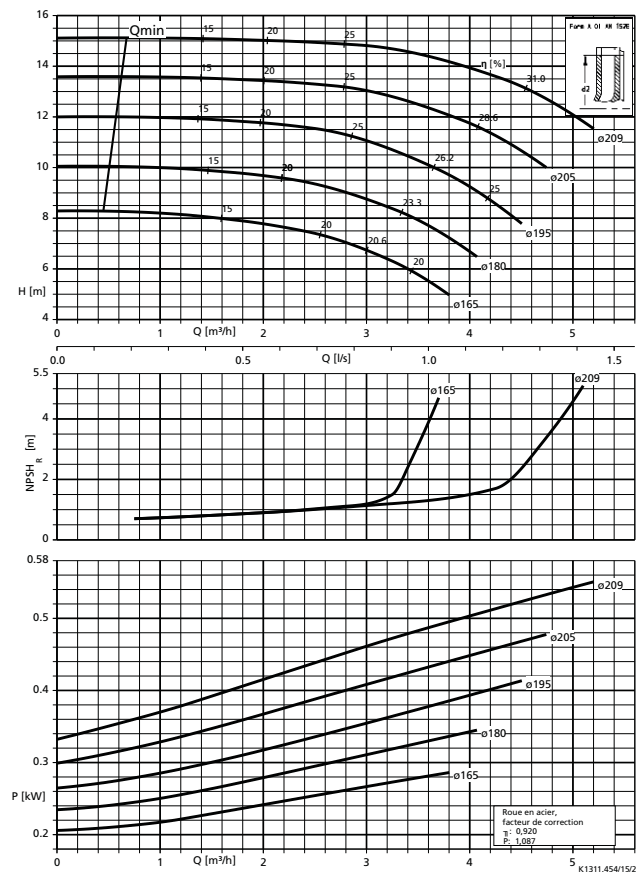
Etanorm 150-125-200,  $n \approx 2900 \text{ min}^{-1}$



Etanorm/Etabloc 040-025-160,  $n \approx 1450 \text{ min}^{-1}$

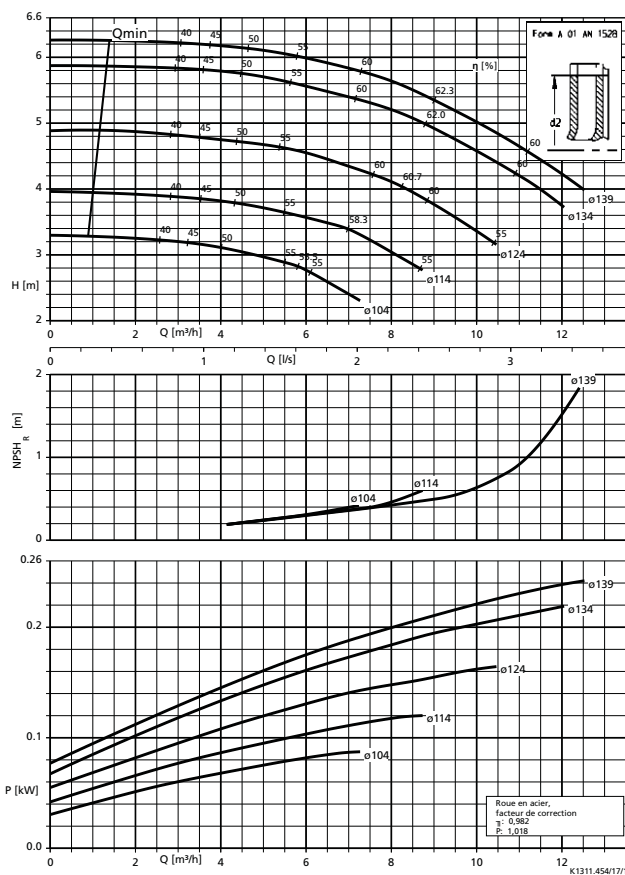


Etanorm/Etabloc 040-025-200,  $n \approx 1450 \text{ min}^{-1}$

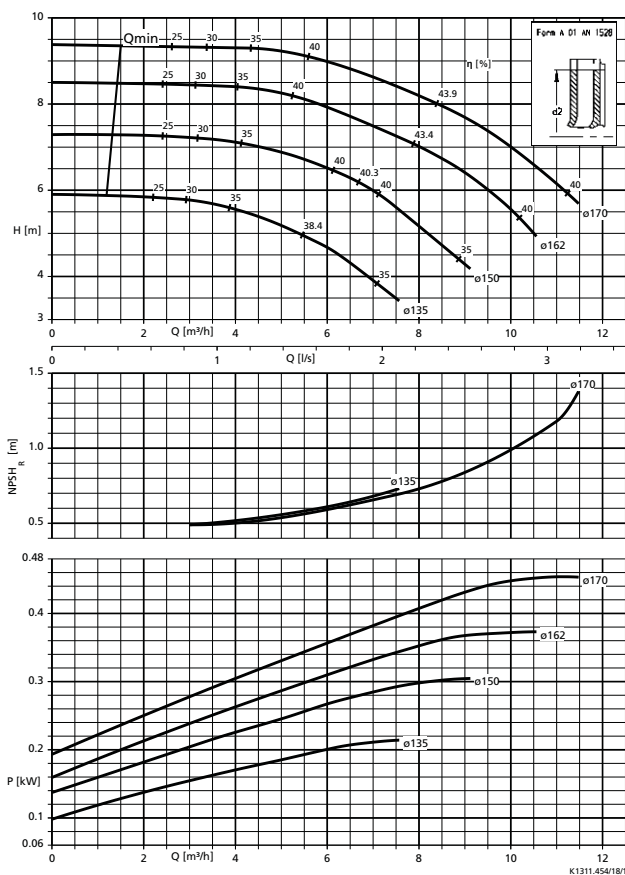


## Courbes caractéristiques

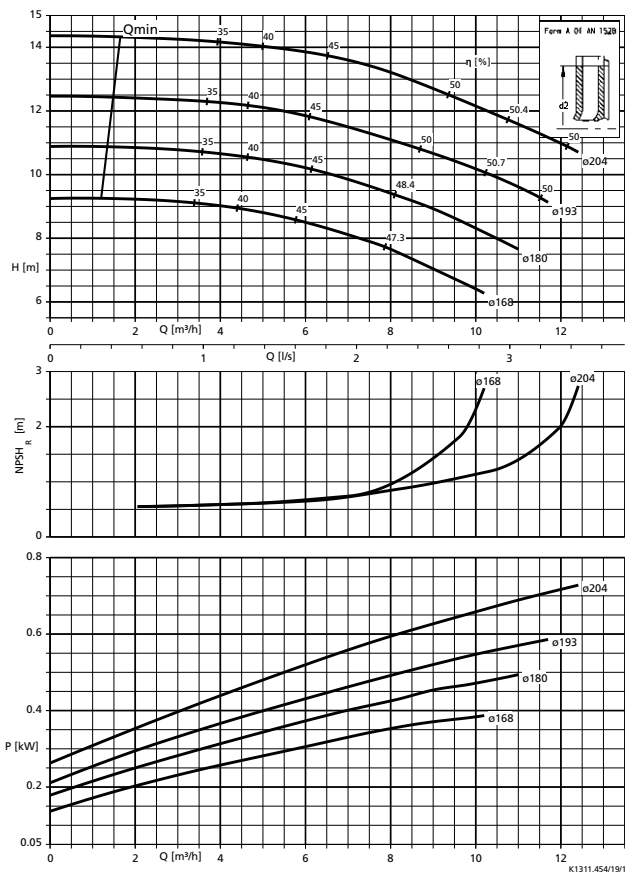
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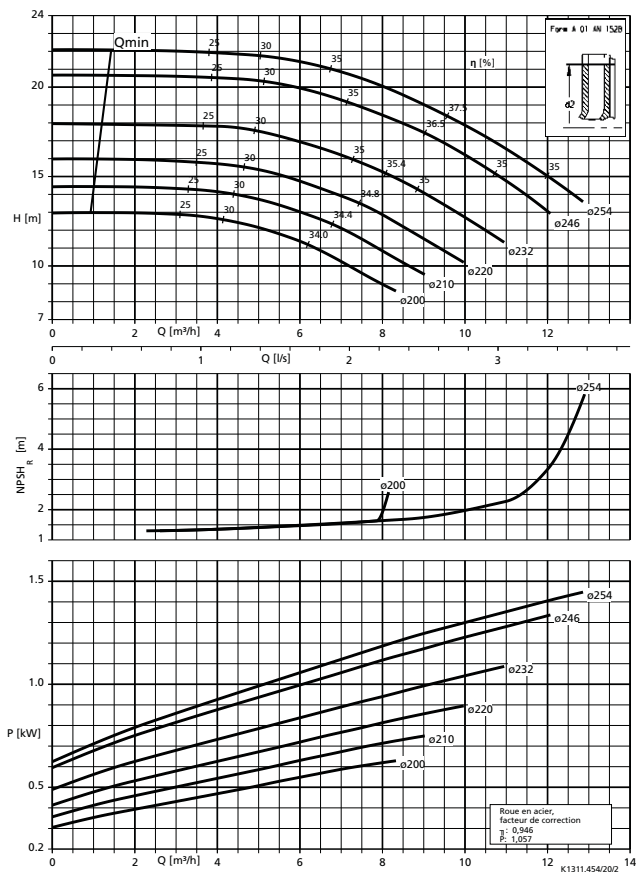
Etanorm/Etabloc 050-032-160.1,  $n \approx 1450 \text{ min}^{-1}$



Etanorm/Etabloc 050-032-200.1,  $n \approx 1450 \text{ min}^{-1}$

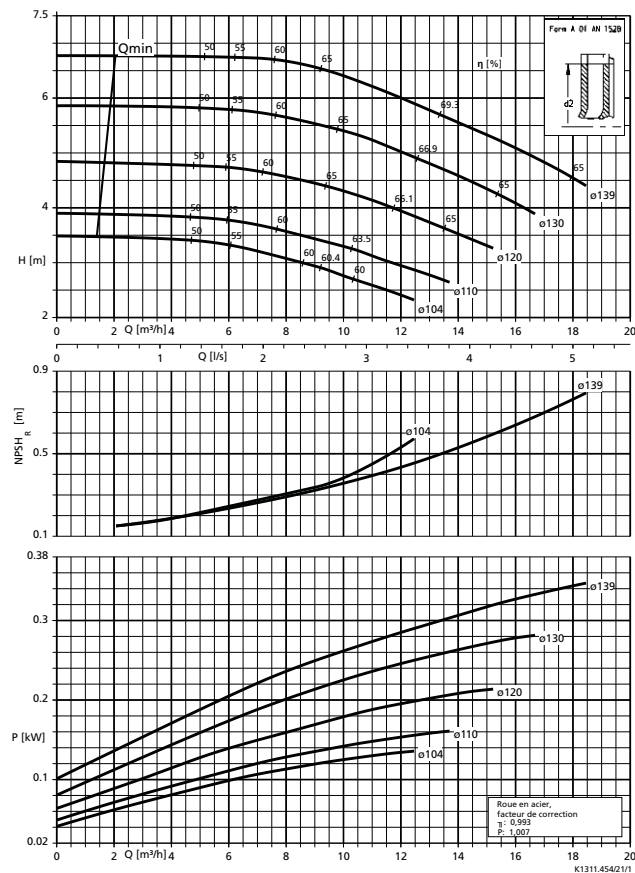


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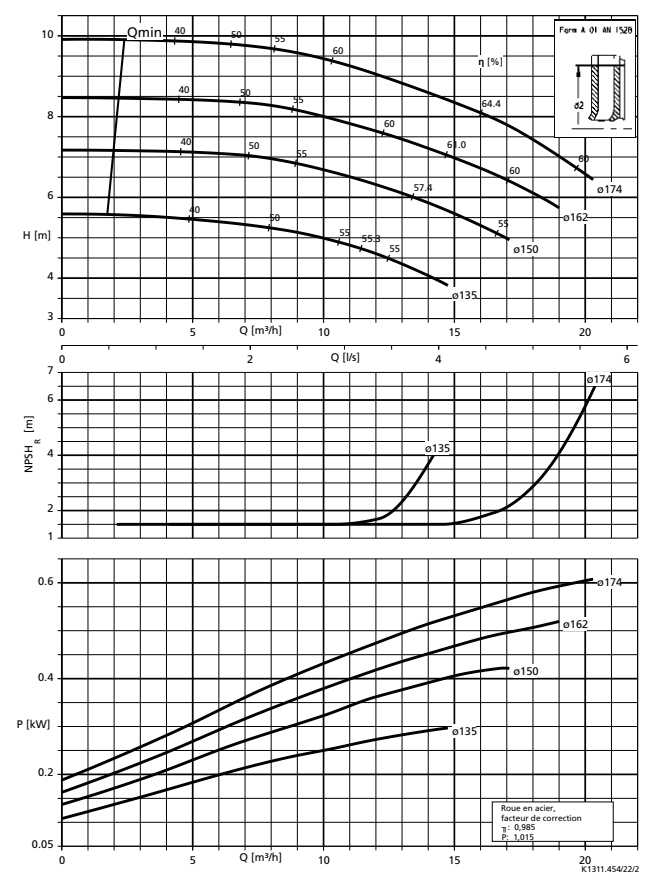


## Courbes caractéristiques

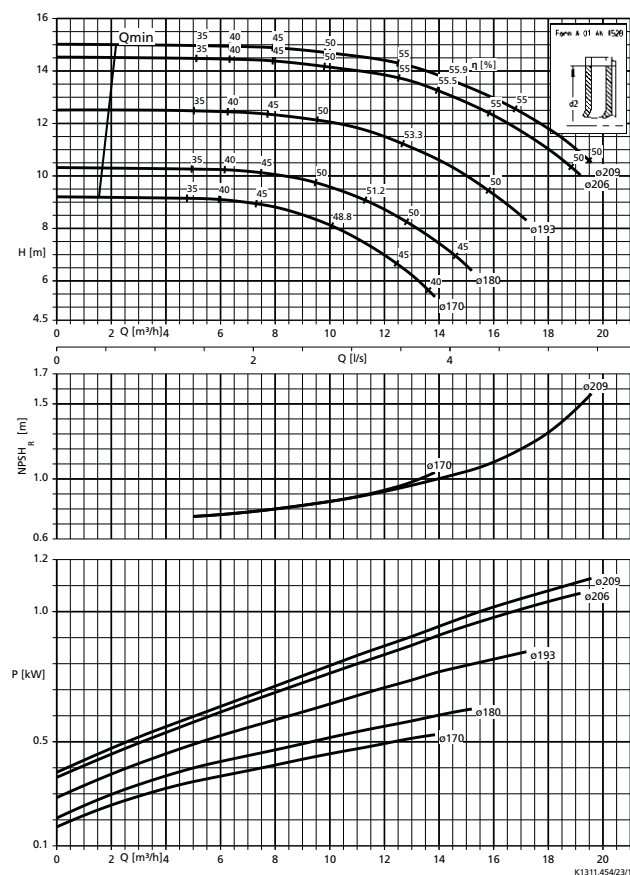
Etanorm/Etabloc 050-032-125,  $n \approx 1450 \text{ min}^{-1}$



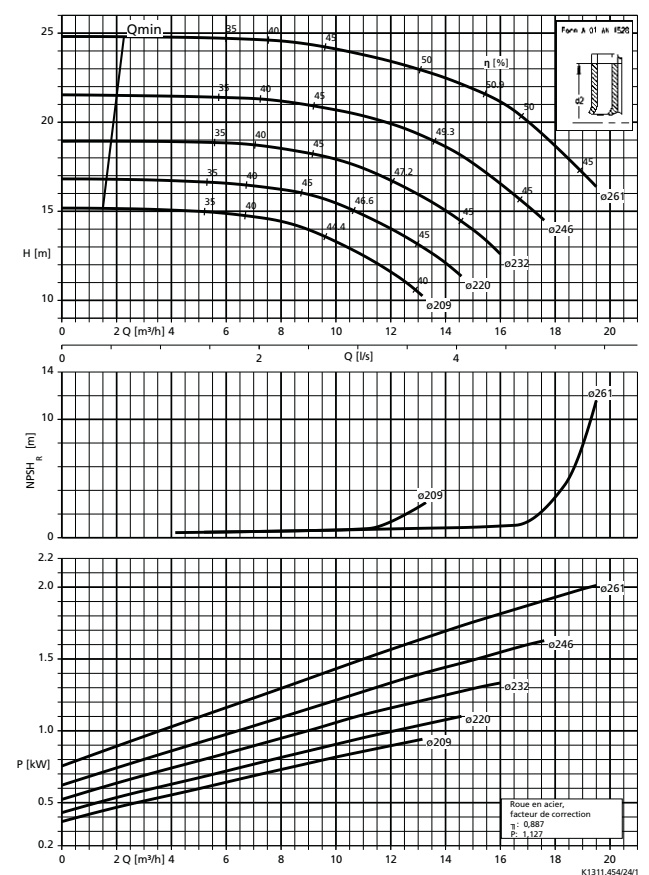
Etanorm/Etabloc 050-032-160,  $n \approx 1450 \text{ min}^{-1}$



Etanorm/Etabloc 050-032-200,  $n \approx 1450 \text{ min}^{-1}$

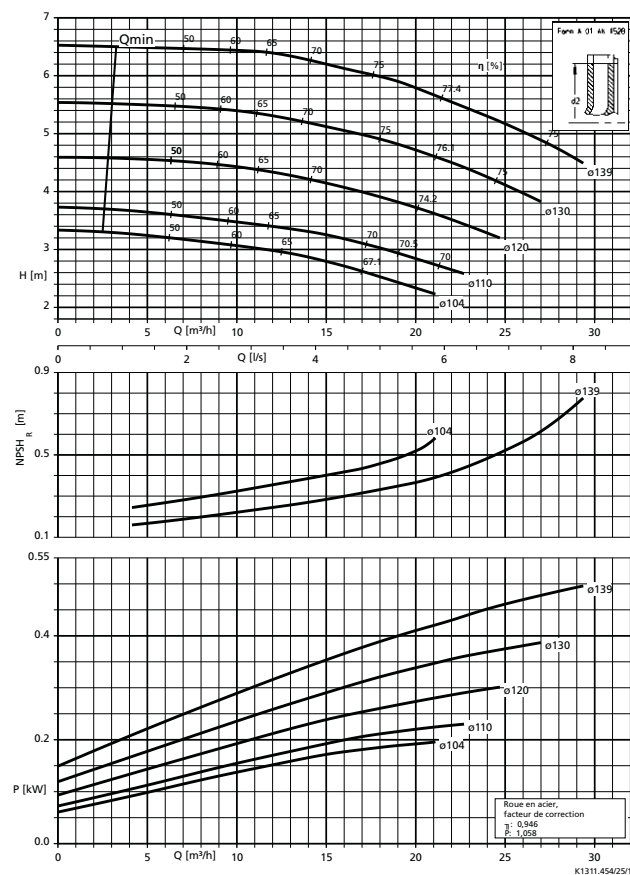


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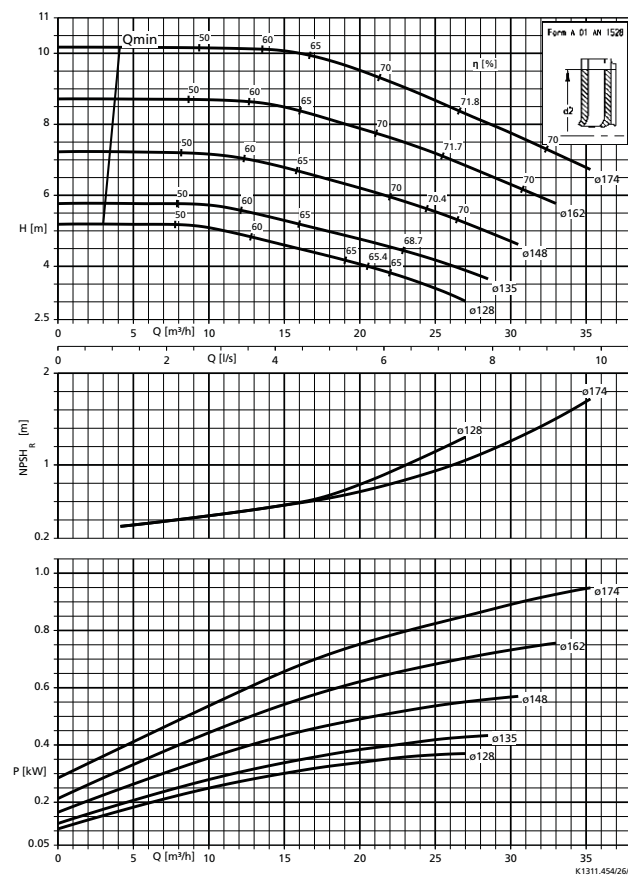


## Courbes caractéristiques

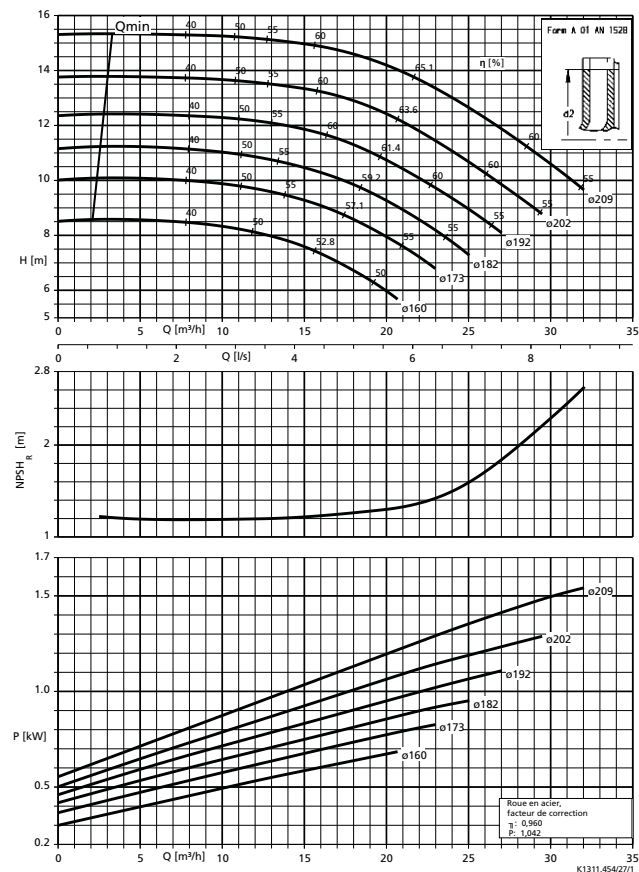
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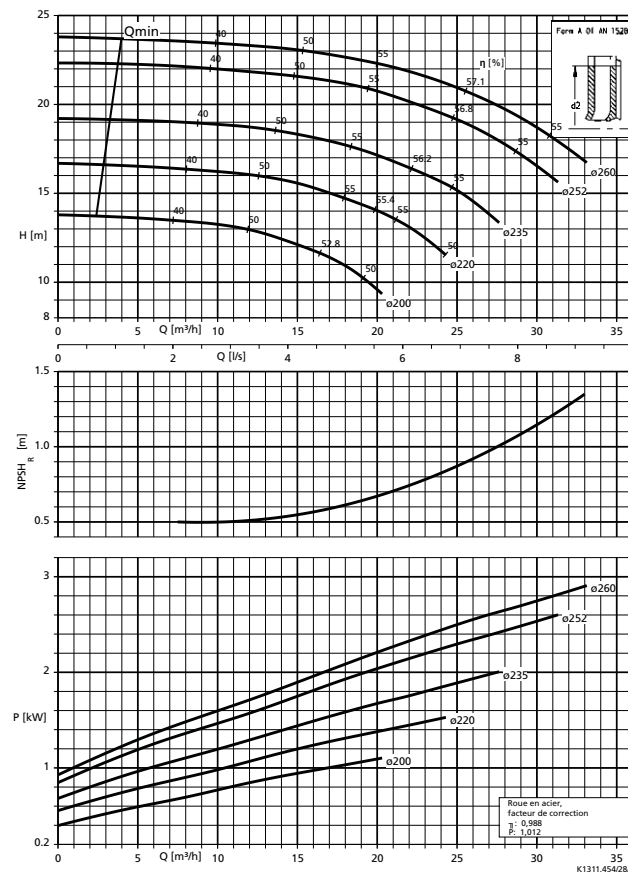
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Etanorm/Etabloc 065-040-200,  $n \approx 1450 \text{ min}^{-1}$

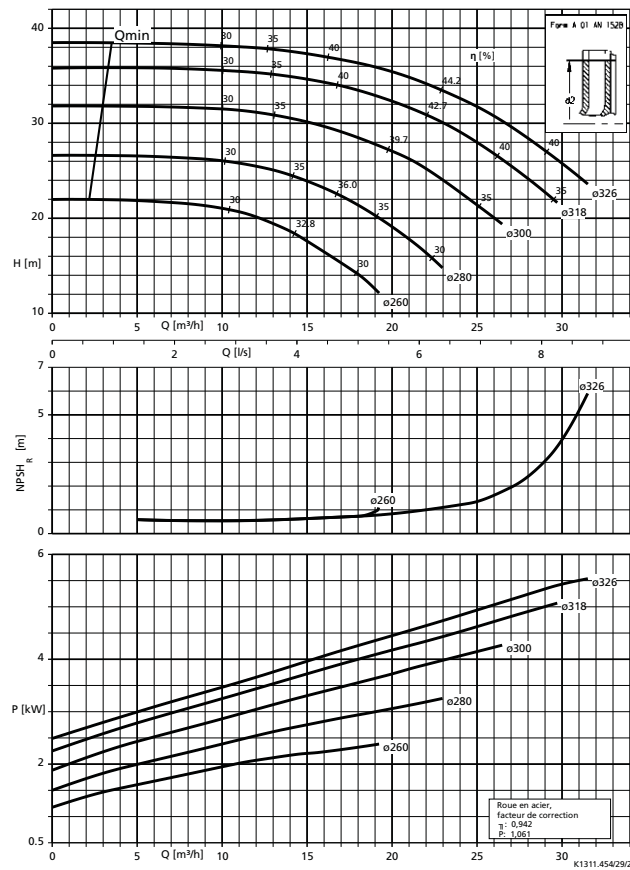


Etanorm/Etabloc 065-040-250,  $n \approx 1450 \text{ min}^{-1}$

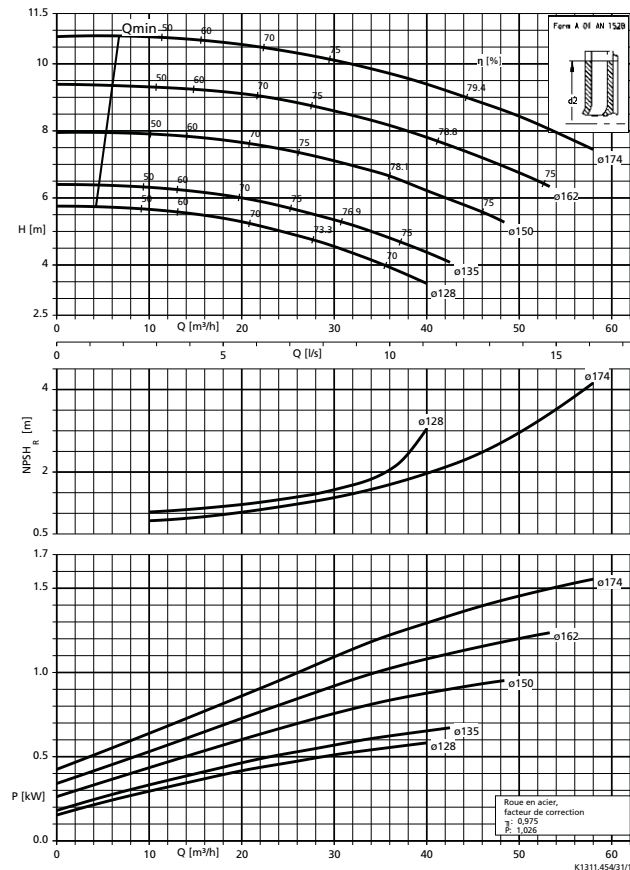


## Courbes caractéristiques

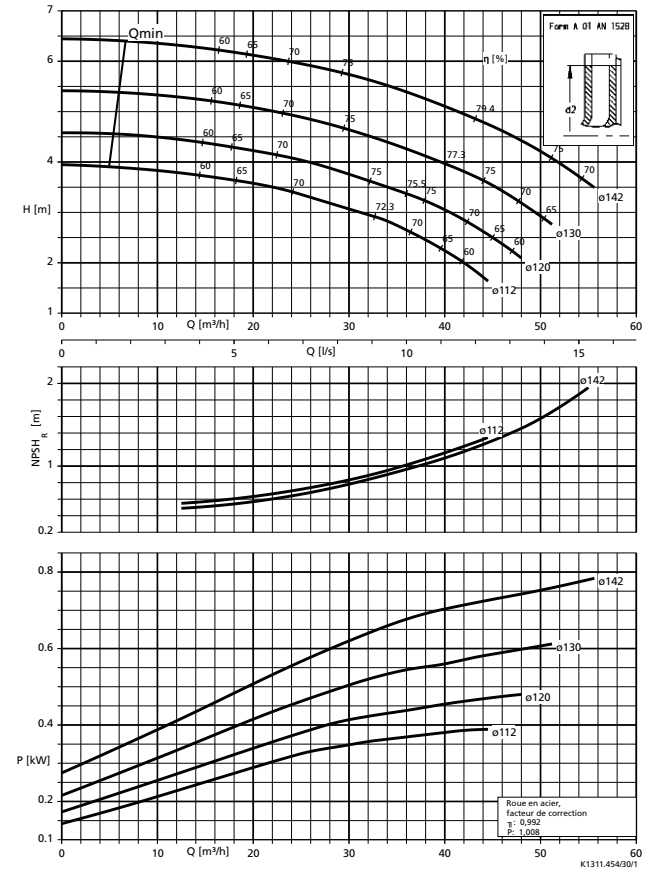
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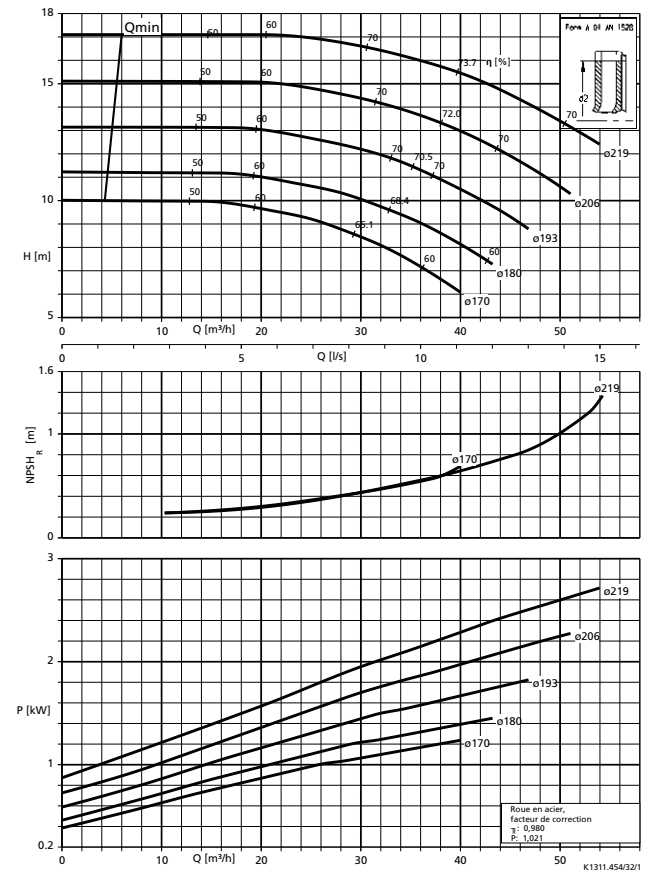
Etanorm/Etabloc 065-050-160,  $n \approx 1450 \text{ min}^{-1}$



Etanorm/Etabloc 065-050-125,  $n \approx 1450 \text{ min}^{-1}$

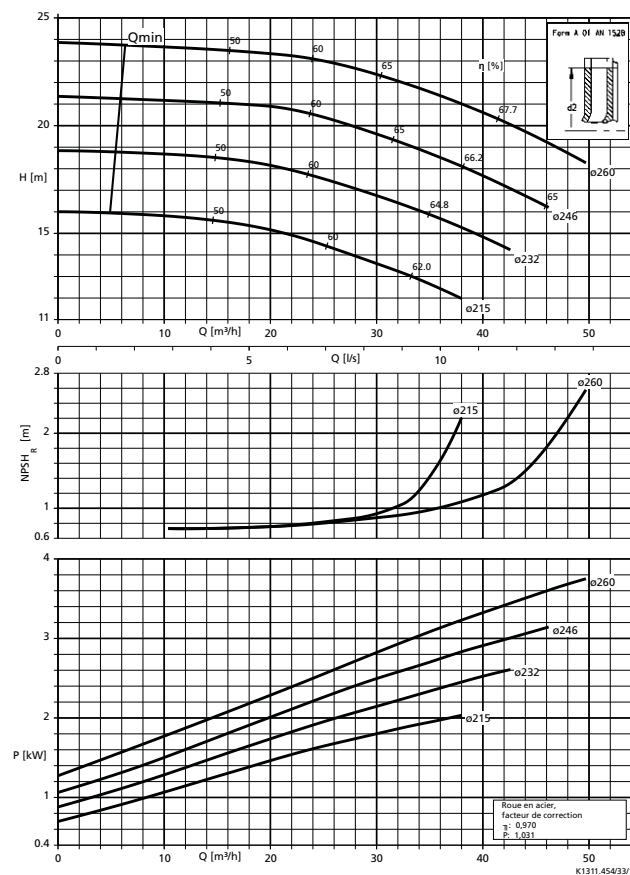


Etanorm/Etabloc 065-050-200,  $n \approx 1450 \text{ min}^{-1}$

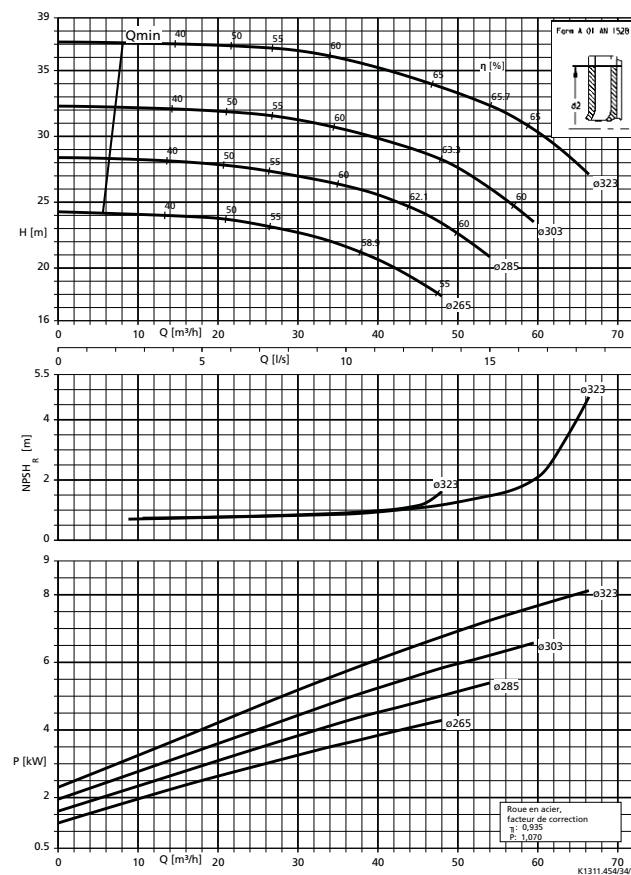


## Courbes caractéristiques

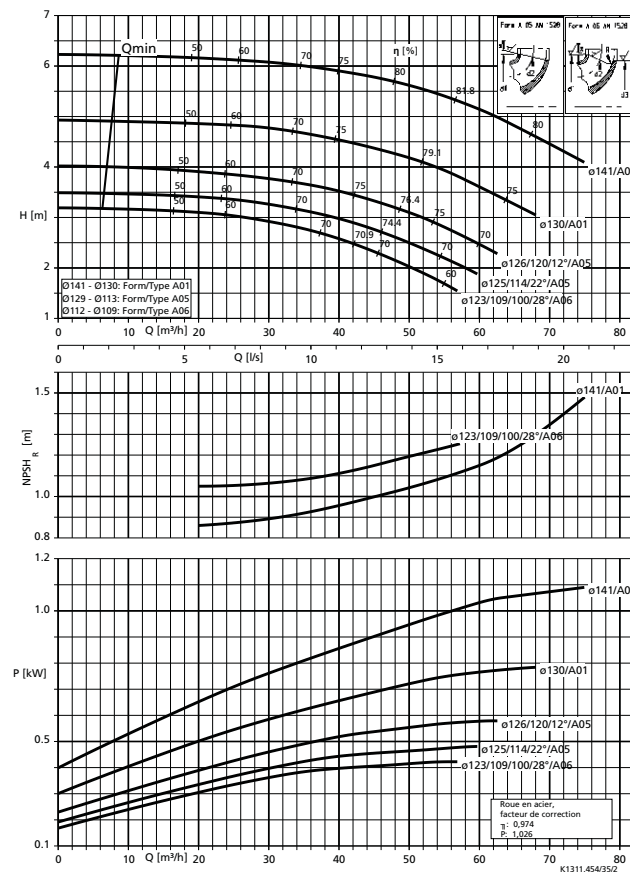
Etanorm/Etabloc 065-050-250,  $n \approx 1450 \text{ min}^{-1}$



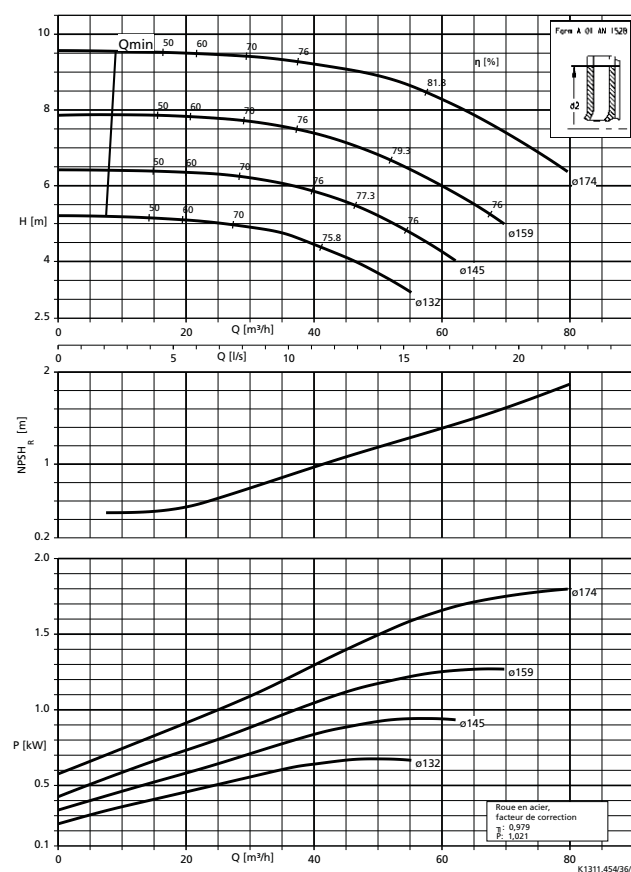
Etanorm/Etabloc 065-050-315,  $n \approx 1450 \text{ min}^{-1}$



Etanorm/Etabloc 080-065-125,  $n \approx 1450 \text{ min}^{-1}$

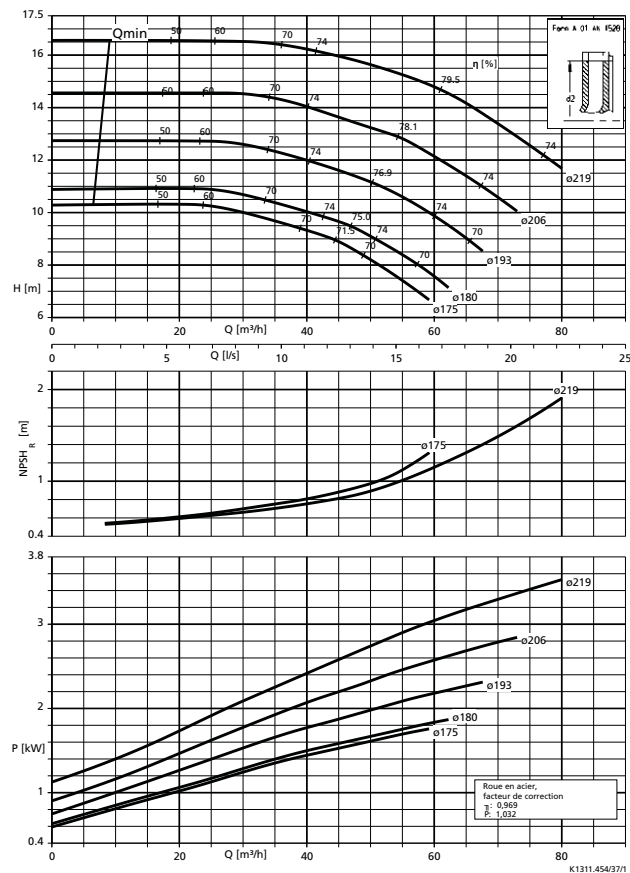


Etanorm/Etabloc 080-065-160,  $n \approx 1450 \text{ min}^{-1}$

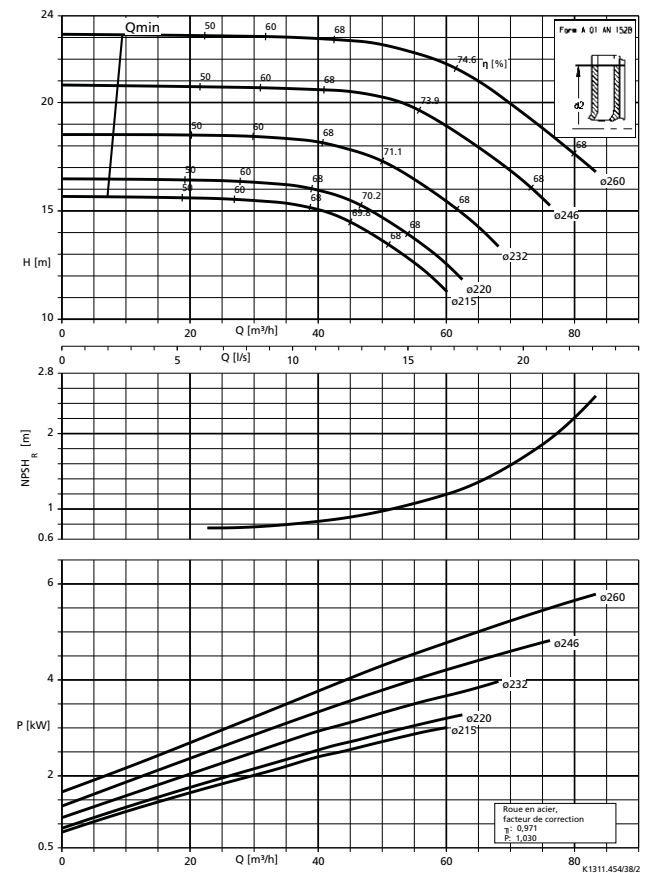


## Courbes caractéristiques

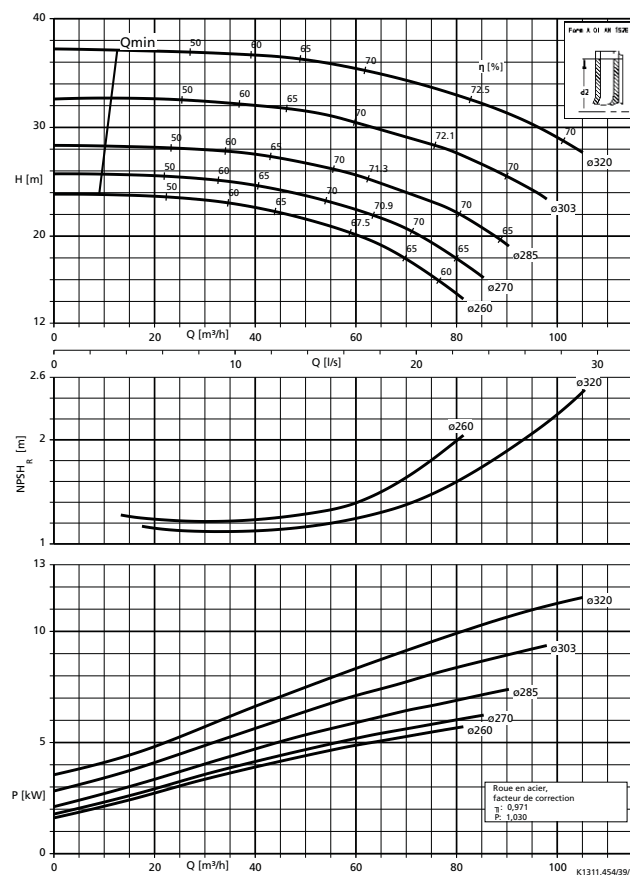
**Etanorm/Etabloc 080-065-200,  $n \approx 1450 \text{ min}^{-1}$**



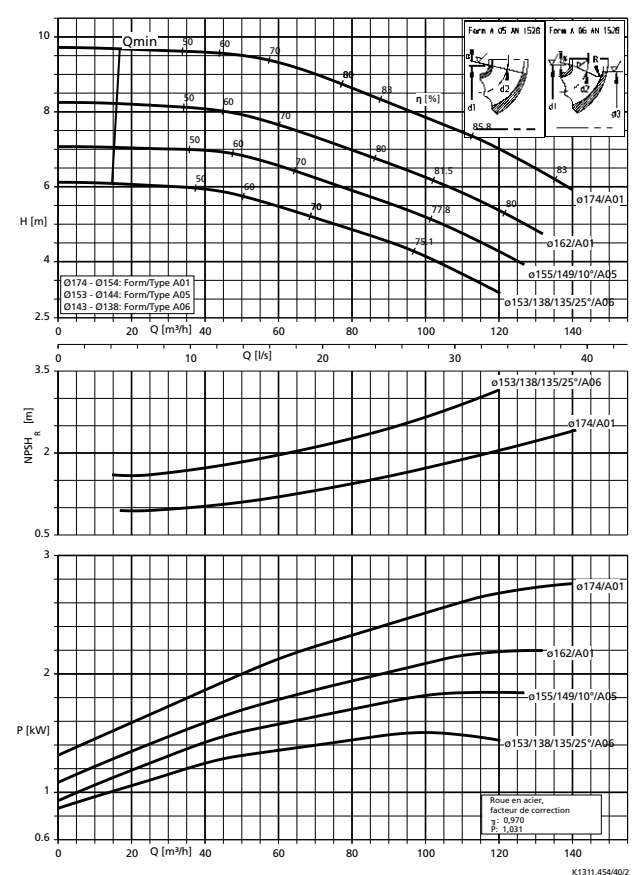
**Etanorm/Etabloc 080-065-250,  $n \approx 1450 \text{ min}^{-1}$**



**Etanorm/Etabloc 080-065-315,  $n \approx 1450 \text{ min}^{-1}$**

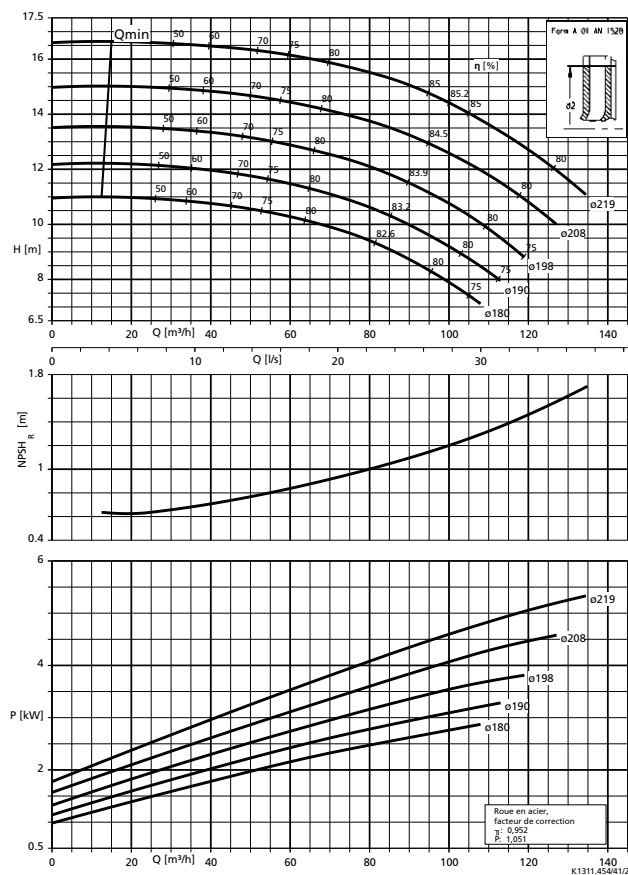


**Etanorm/Etabloc 100-080-160,  $n \approx 1450 \text{ min}^{-1}$**

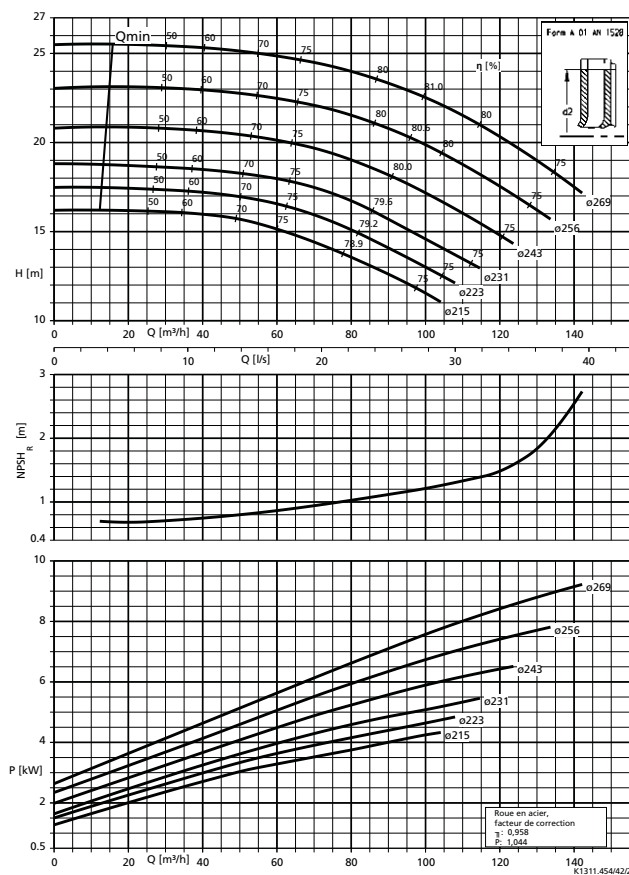


## Courbes caractéristiques

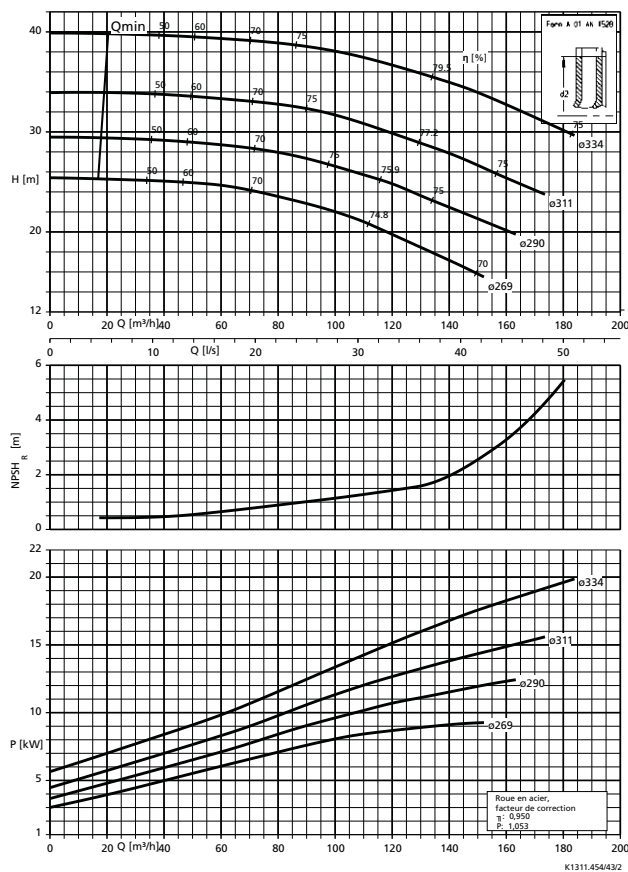
Etanorm/Etabloc 100-080-200,  $n \approx 1450 \text{ min}^{-1}$



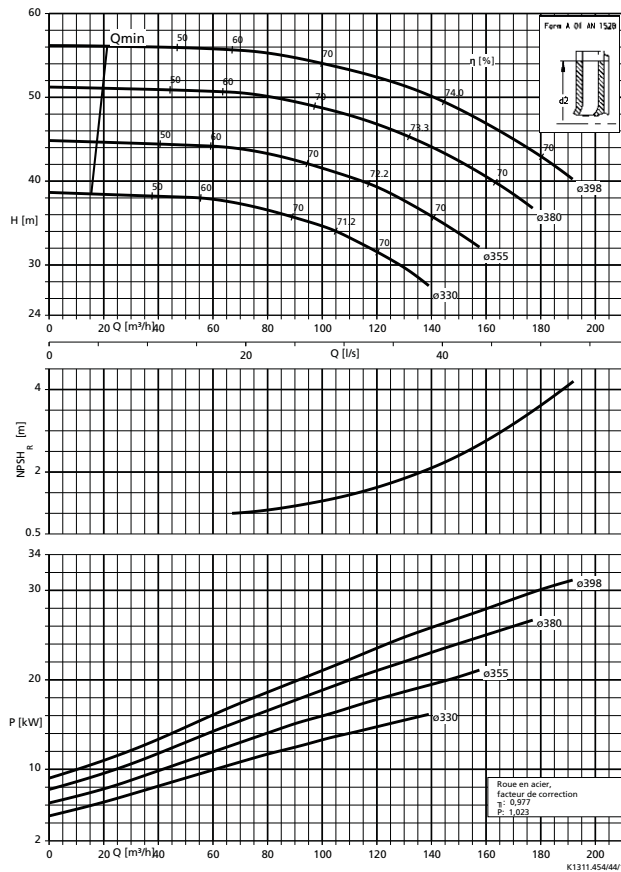
Etanorm/Etabloc 100-080-250,  $n \approx 1450 \text{ min}^{-1}$



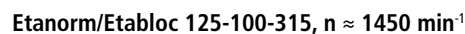
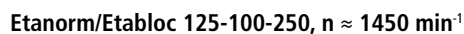
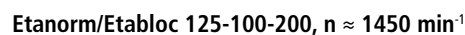
Etanorm/Etabloc 100-080-315,  $n \approx 1450 \text{ min}^{-1}$



Etanorm/Etabloc 100-080-400,  $n \approx 1450 \text{ min}^{-1}$

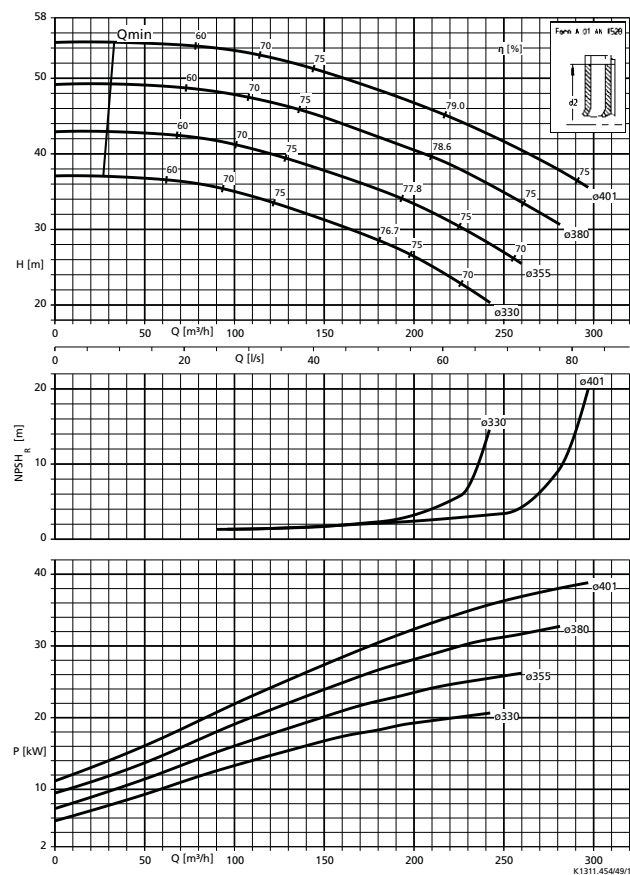


**Etanorm/Etabloc 125-100-160,  $n \approx 1450 \text{ min}^{-1}$**

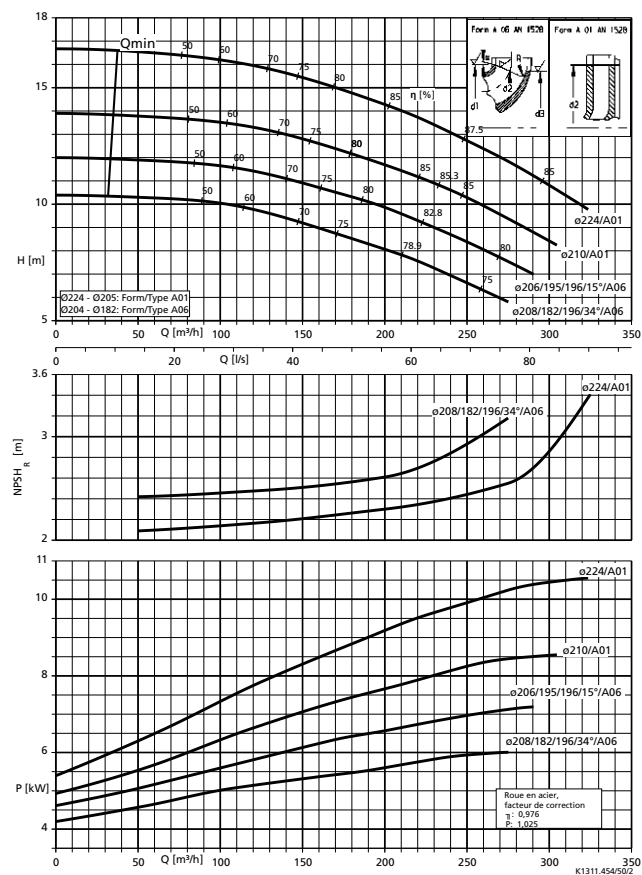


## Courbes caractéristiques

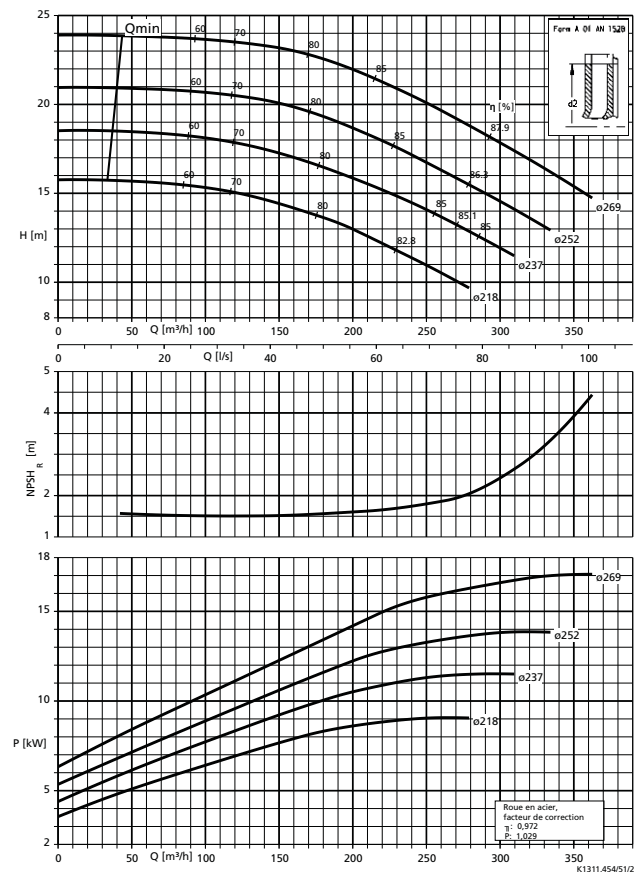
Etanorm/Etabloc 125-100-400,  $n \approx 1450 \text{ min}^{-1}$



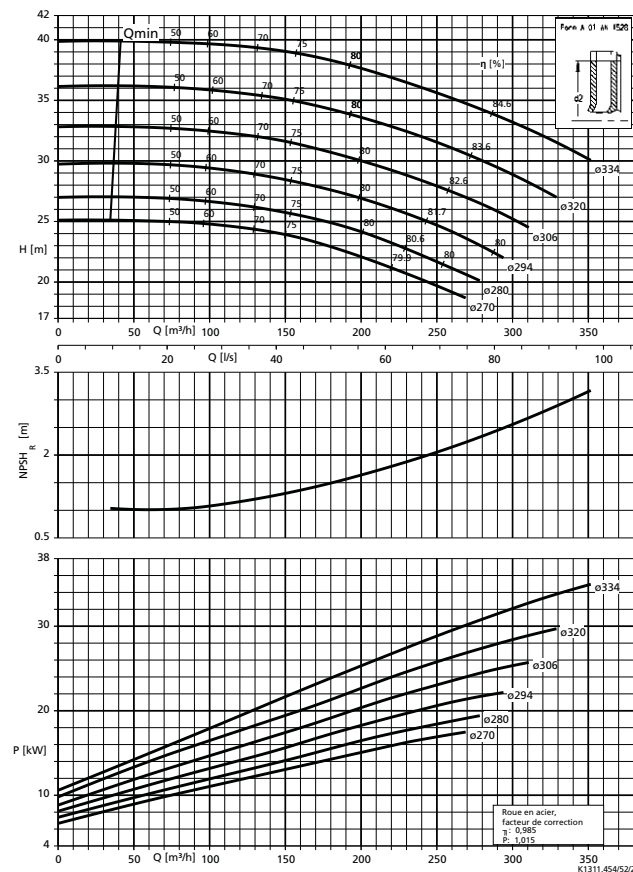
Etanorm/Etabloc 150-125-200,  $n \approx 1450 \text{ min}^{-1}$



Etanorm/Etabloc 150-125-250,  $n \approx 1450 \text{ min}^{-1}$

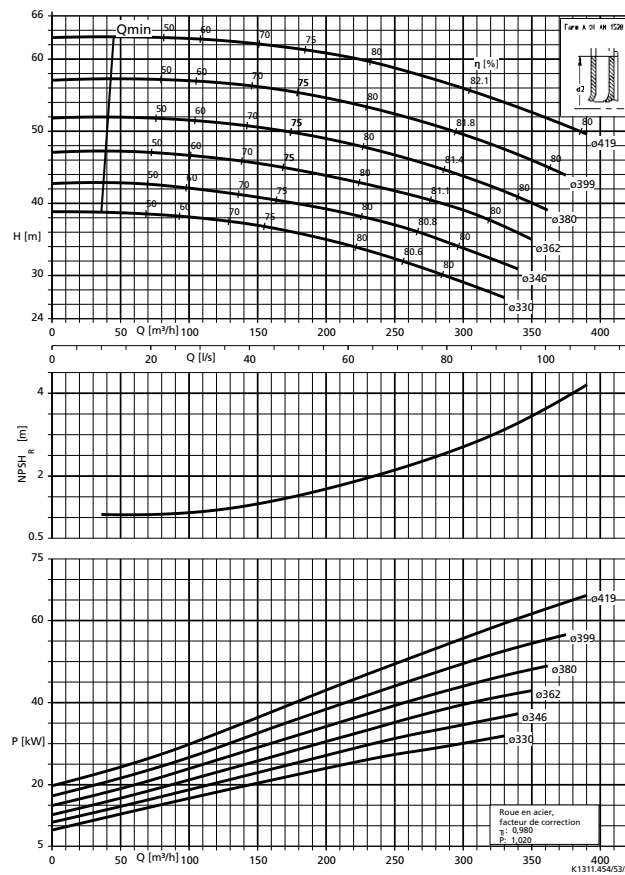


Etanorm/Etabloc 150-125-315,  $n \approx 1450 \text{ min}^{-1}$

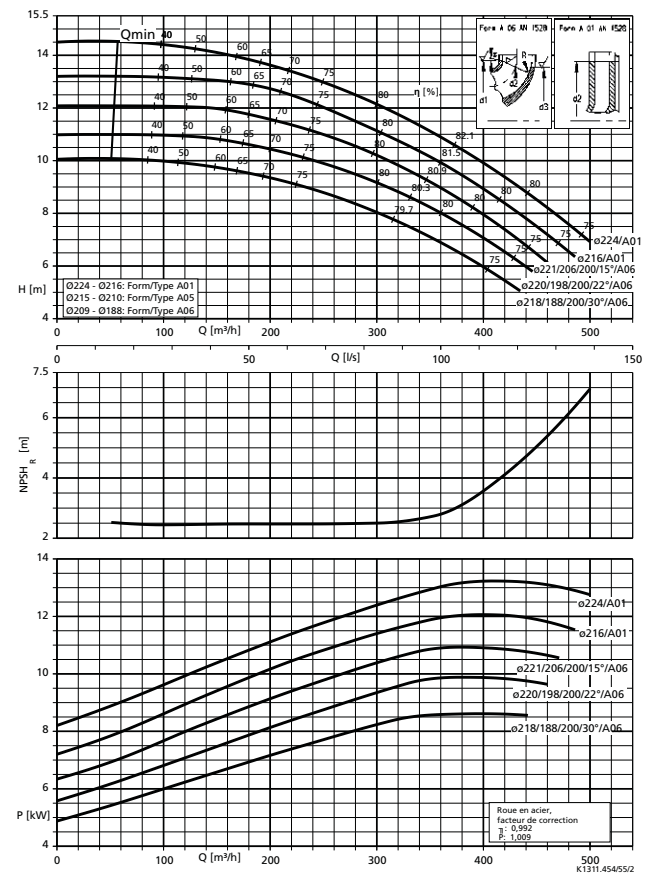


## Courbes caractéristiques

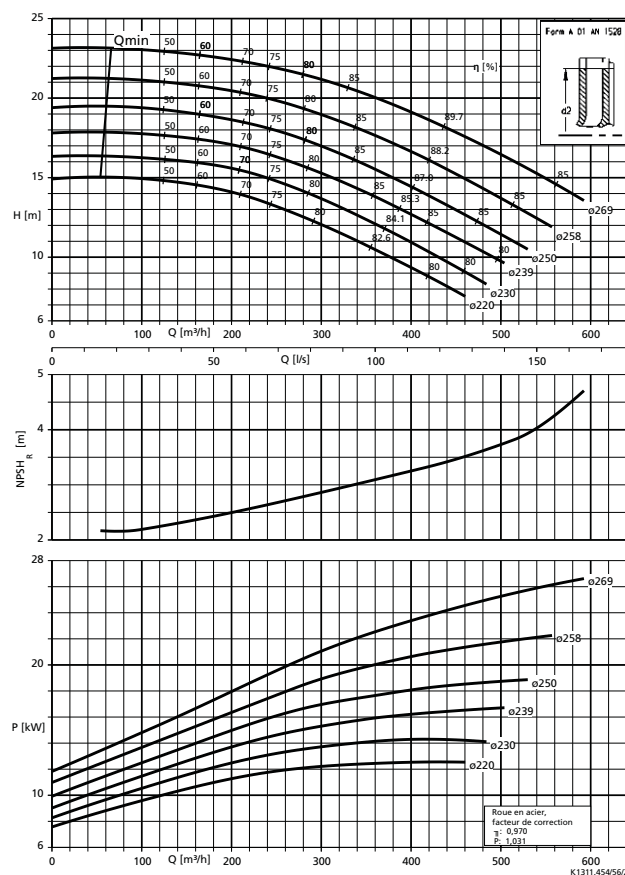
Etanorm/Etabloc 150-125-400,  $n \approx 1450 \text{ min}^{-1}$



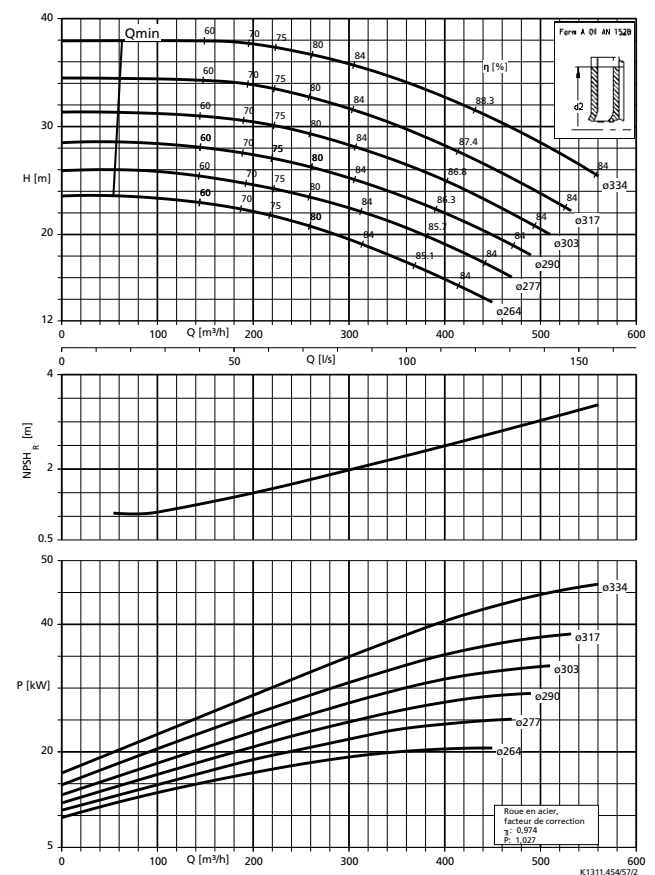
Etanorm/Etabloc 200-150-200,  $n \approx 1450 \text{ min}^{-1}$



Etanorm/Etabloc 200-150-250,  $n \approx 1450 \text{ min}^{-1}$

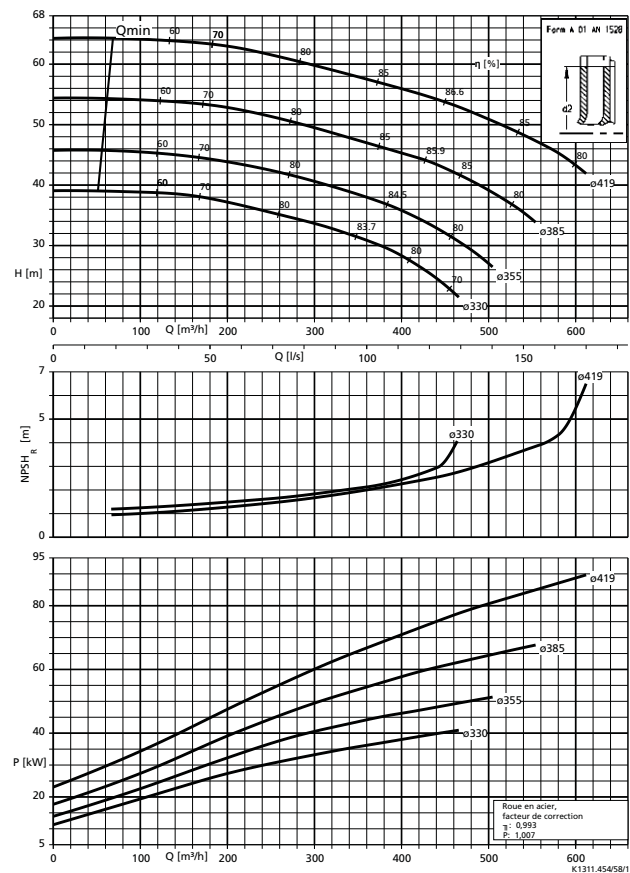


Etanorm/Etabloc 200-150-315,  $n \approx 1450 \text{ min}^{-1}$

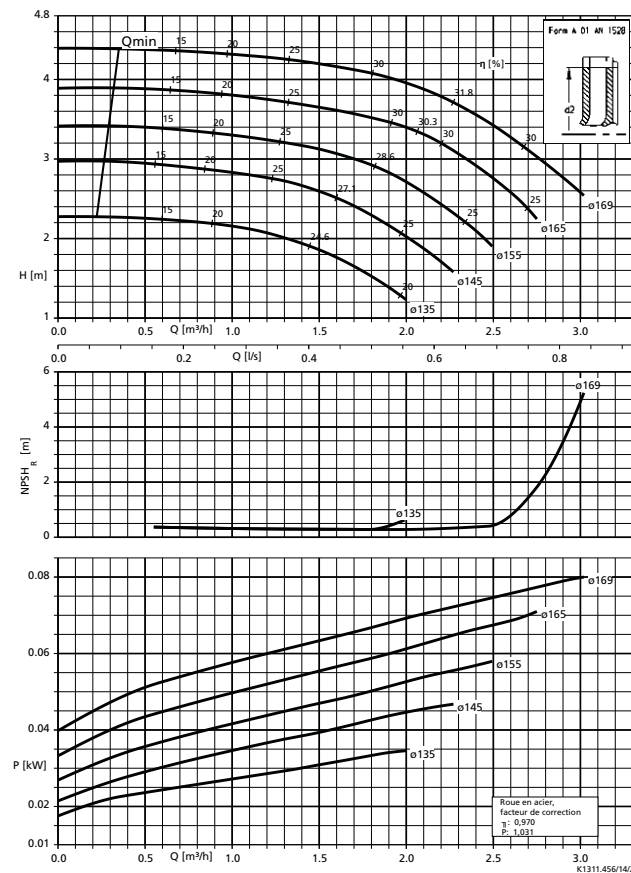


## Courbes caractéristiques

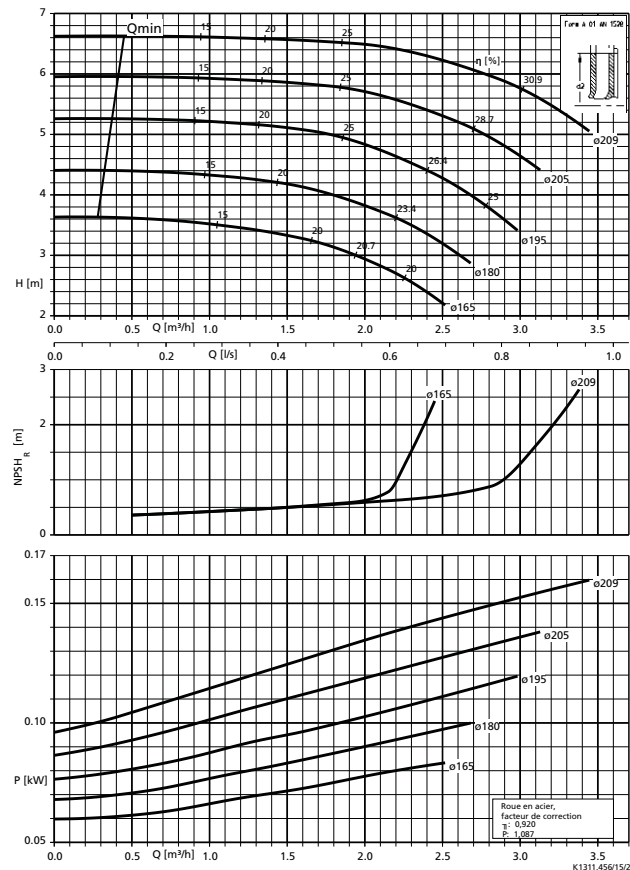
**Etanorm/Etabloc 200-150-400,  $n \approx 1450 \text{ min}^{-1}$**



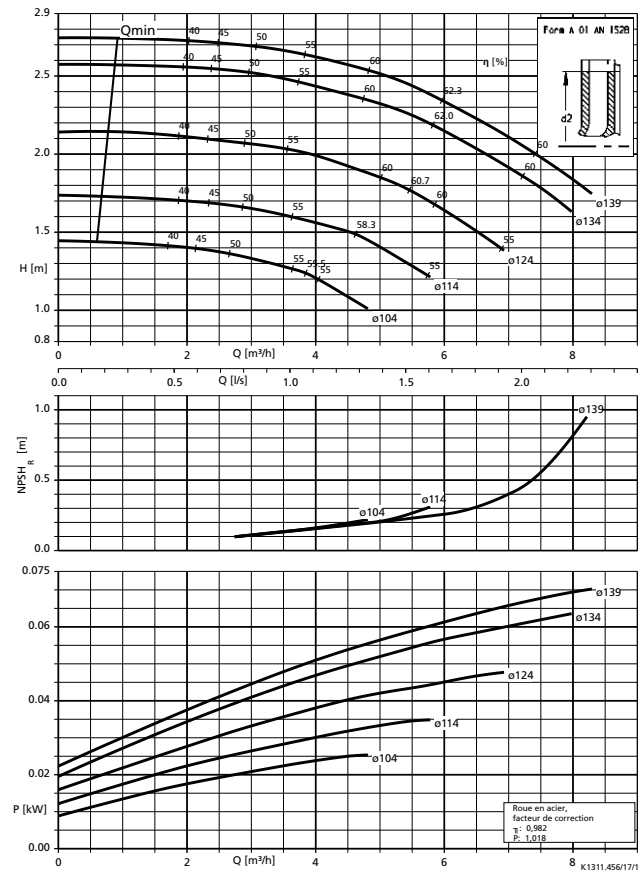
**Etanorm 040-025-160,  $n \approx 960 \text{ min}^{-1}$**



**Etanorm 040-025-200,  $n \approx 960 \text{ min}^{-1}$**

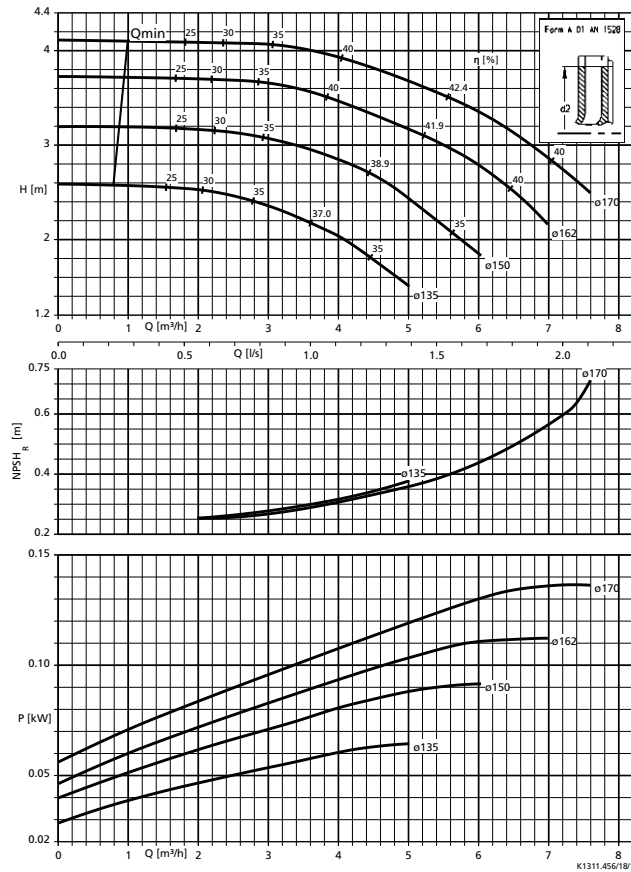


**Etanorm 050-032-125.1,  $n \approx 960 \text{ min}^{-1}$**

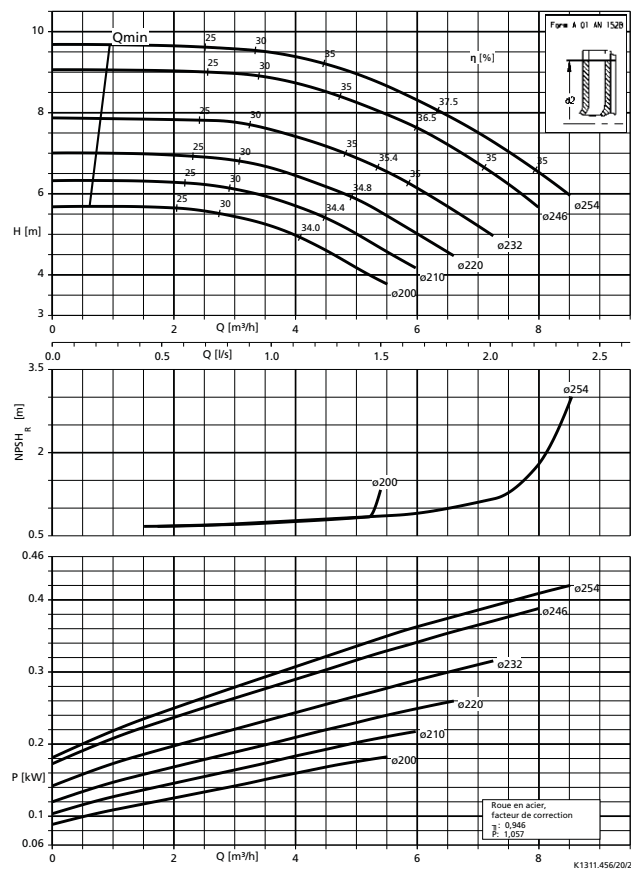


## Courbes caractéristiques

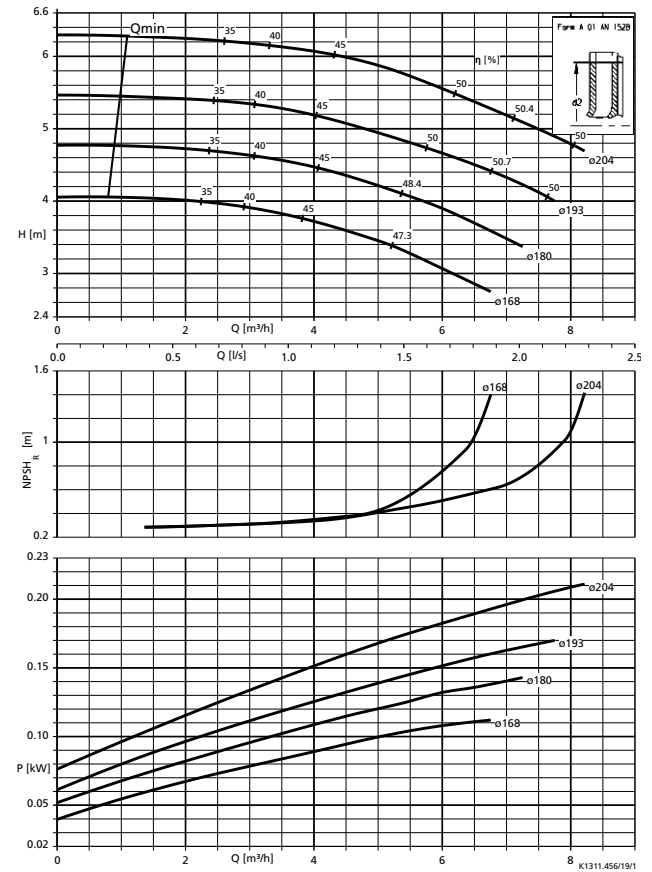
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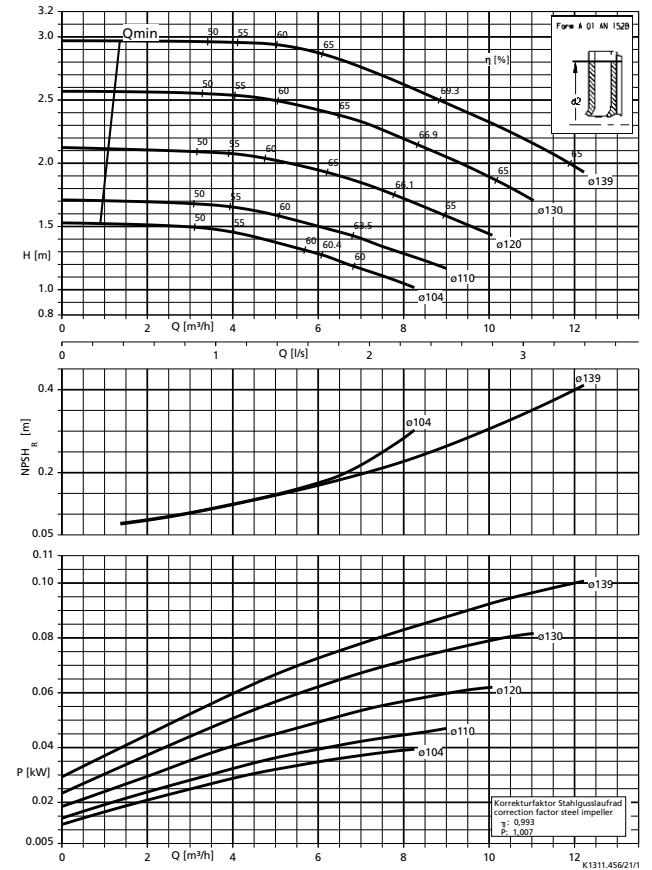
**Etanorm 050-032-250.1,  $n \approx 960 \text{ min}^{-1}$**



**Etanorm 050-032-200.1,  $n \approx 960 \text{ min}^{-1}$**

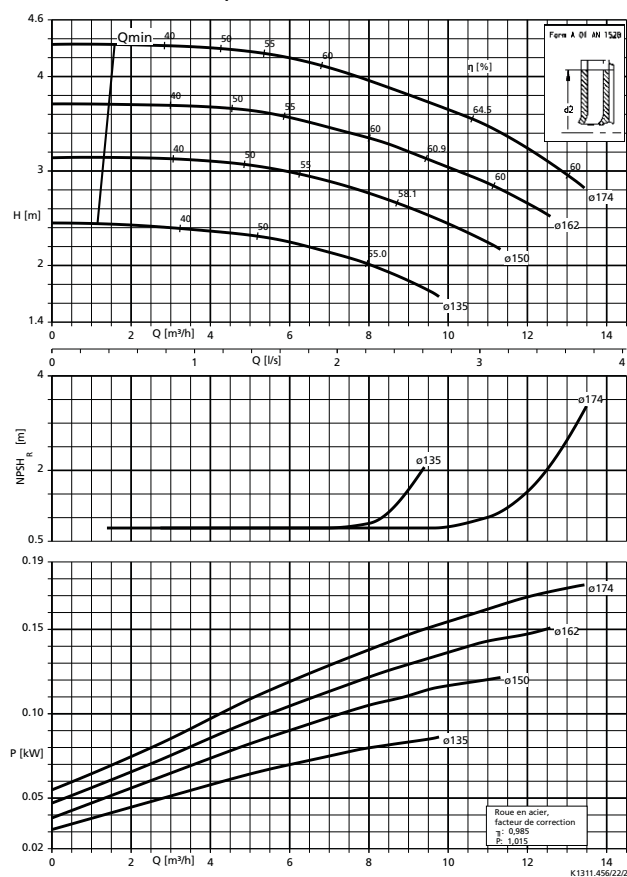


**Etanorm 050-032-125,  $n \approx 960 \text{ min}^{-1}$**

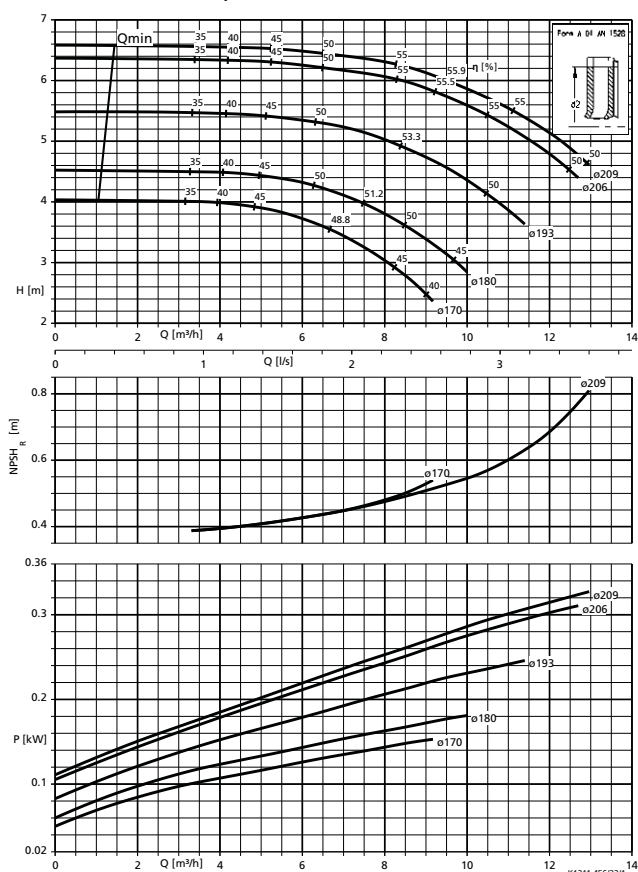


## Courbes caractéristiques

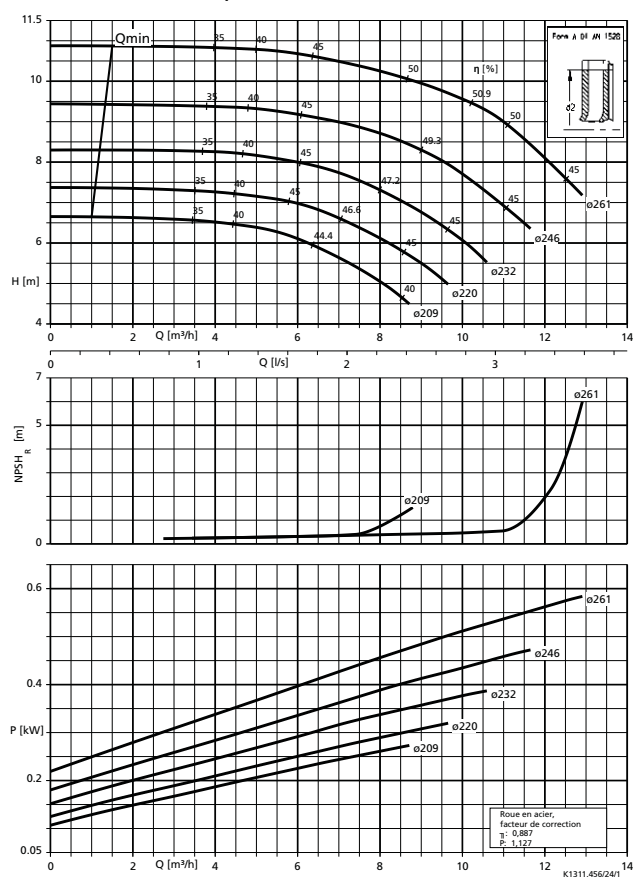
**Etanorm 050-032-160,  $n \approx 960 \text{ min}^{-1}$**



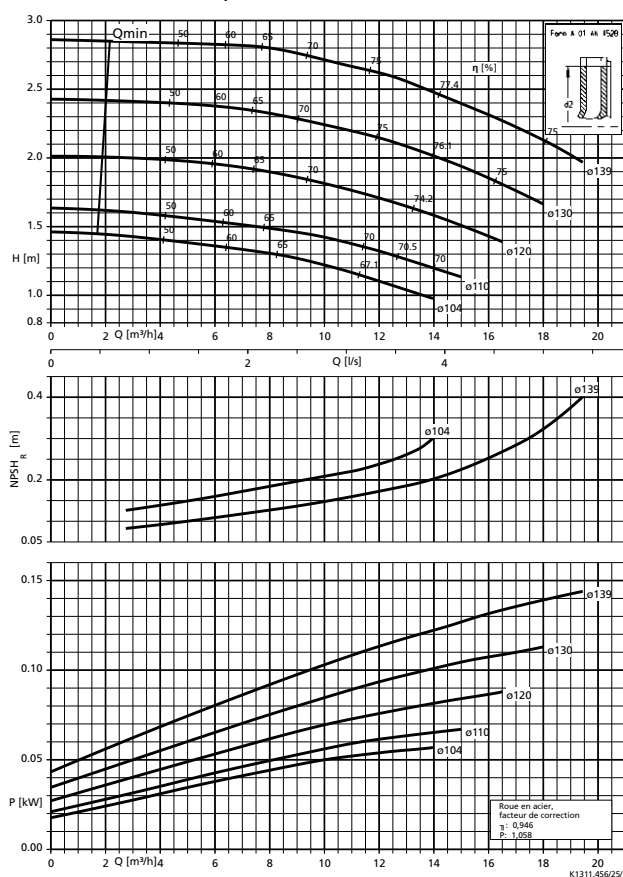
**Etanorm 050-032-200,  $n \approx 960 \text{ min}^{-1}$**



**Etanorm 050-032-250,  $n \approx 960 \text{ min}^{-1}$**

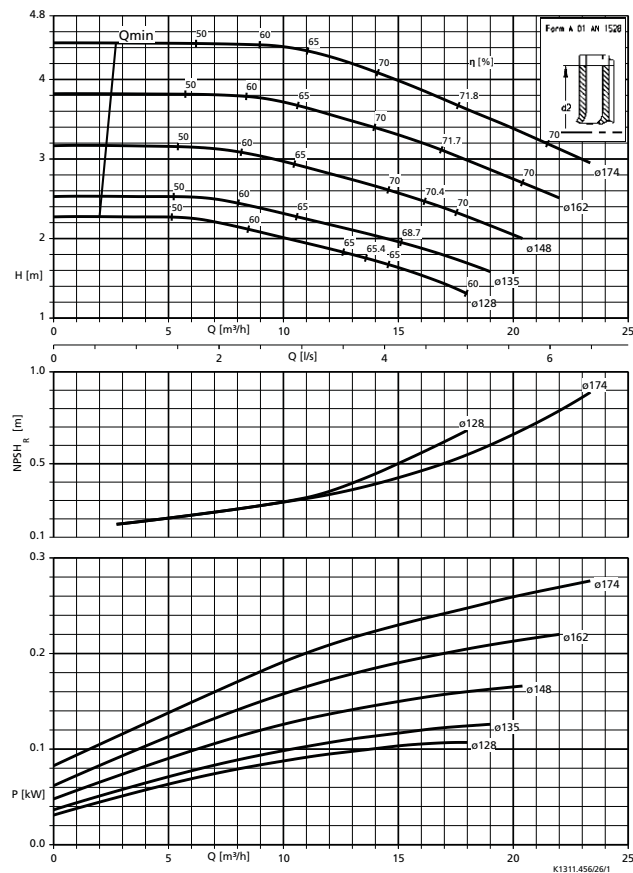


**Etanorm 065-040-125,  $n \approx 960 \text{ min}^{-1}$**

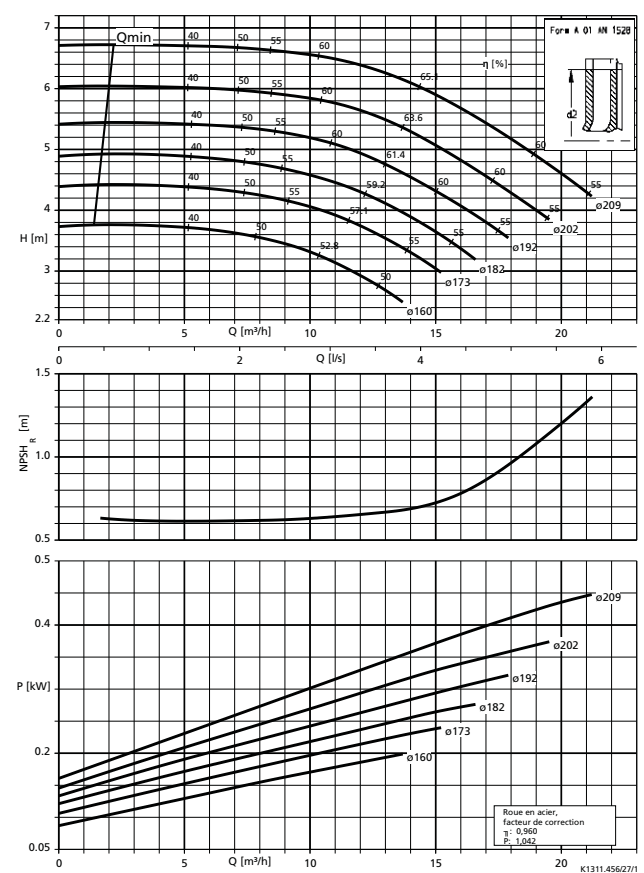


## Courbes caractéristiques

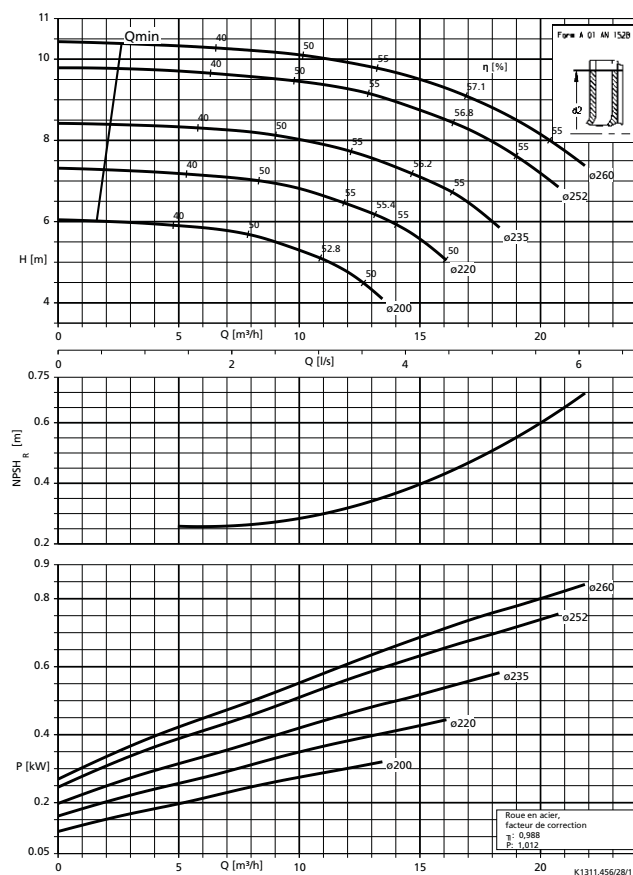
Etanorm 065-040-160,  $n \approx 960 \text{ min}^{-1}$



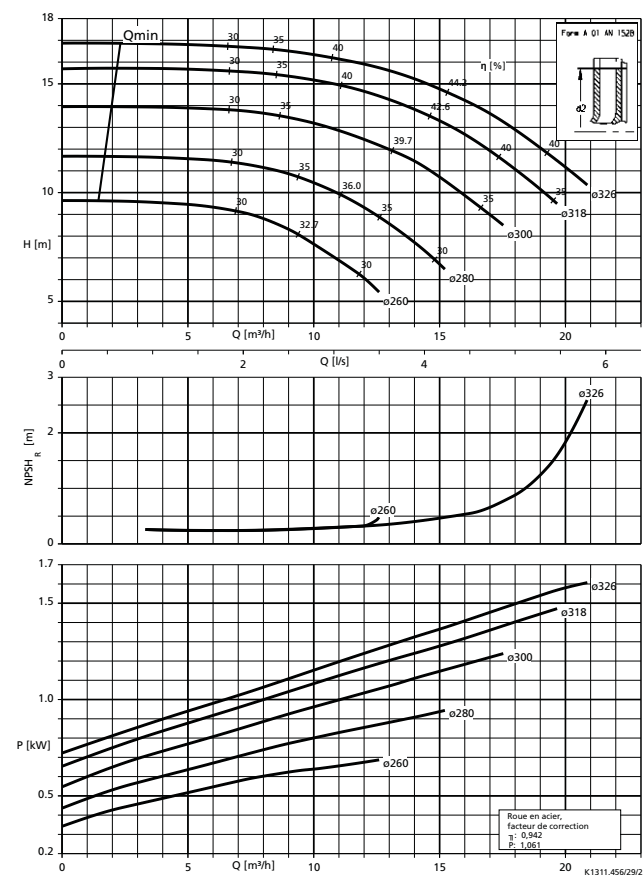
Etanorm 065-040-200,  $n \approx 960 \text{ min}^{-1}$



Etanorm 065-040-250,  $n \approx 960 \text{ min}^{-1}$

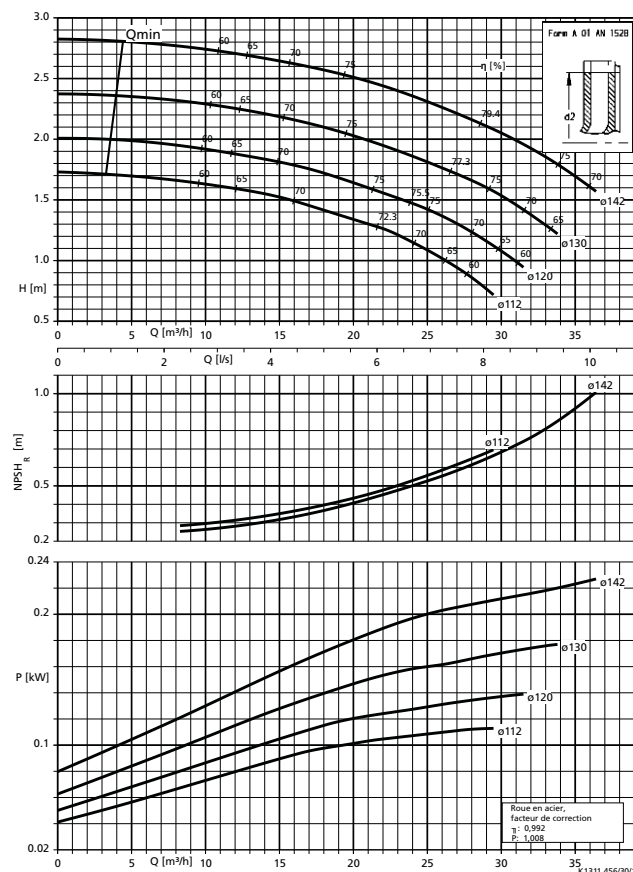


Etanorm 065-040-315,  $n \approx 960 \text{ min}^{-1}$

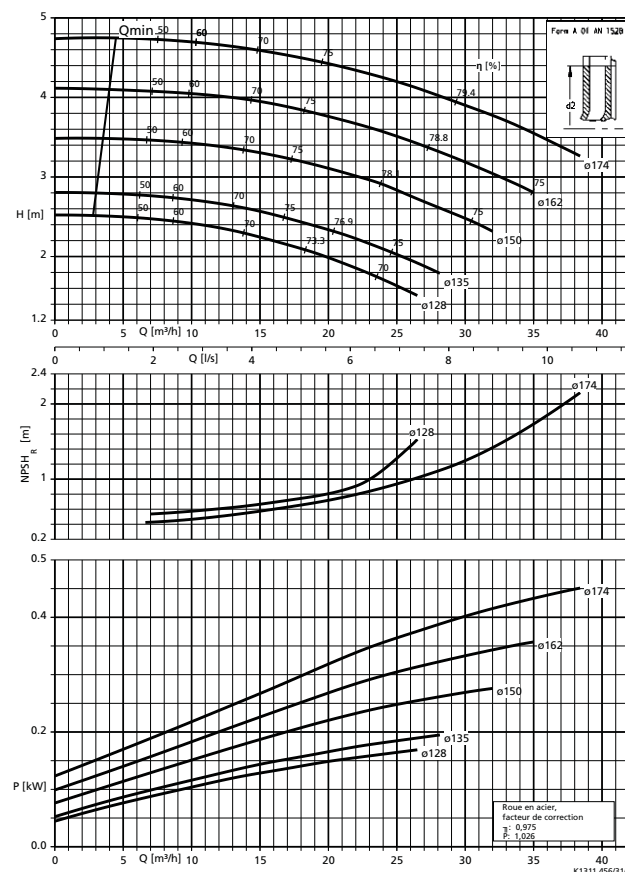


## Courbes caractéristiques

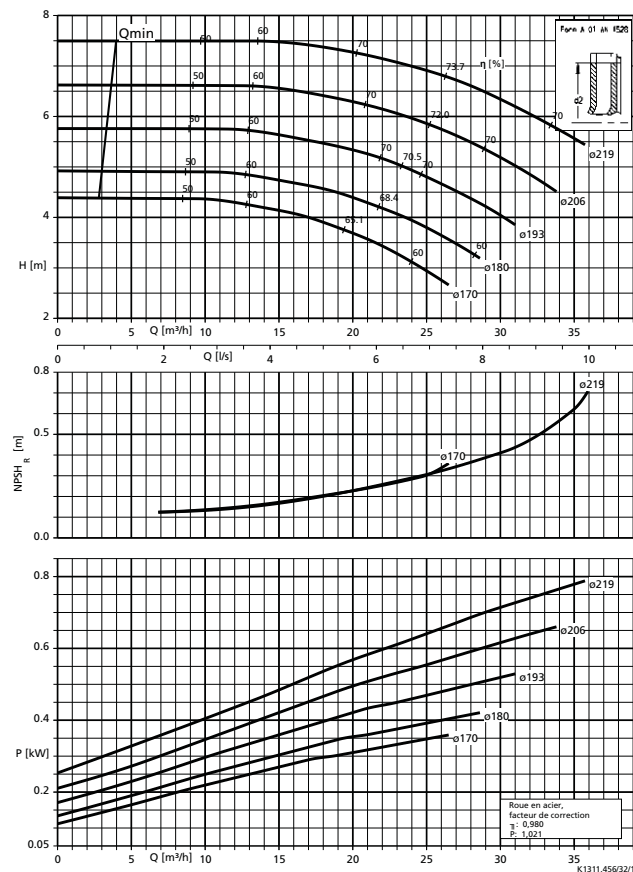
Etanorm 065-050-125,  $n \approx 960 \text{ min}^{-1}$



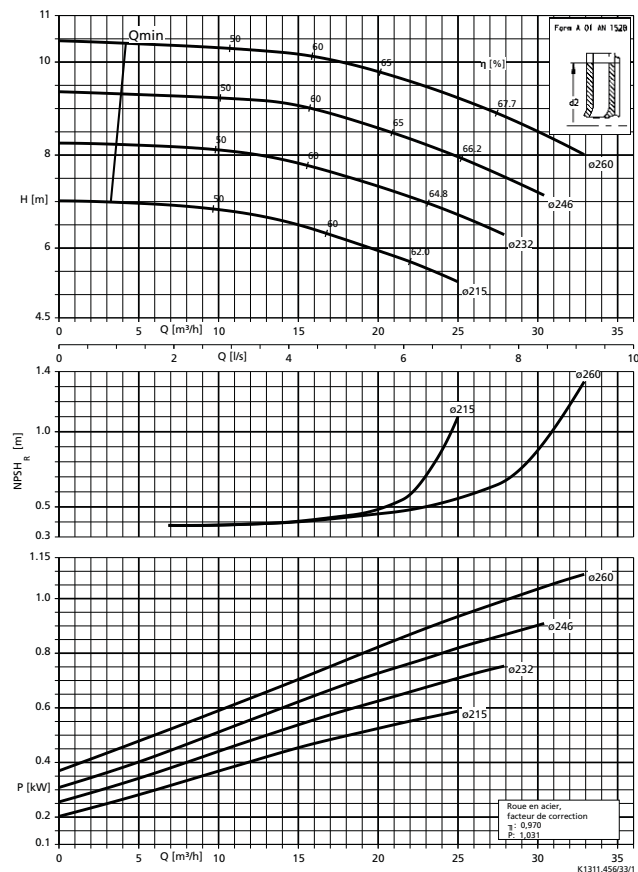
Etanorm 065-050-160,  $n \approx 960 \text{ min}^{-1}$



Etanorm 065-050-200,  $n \approx 960 \text{ min}^{-1}$

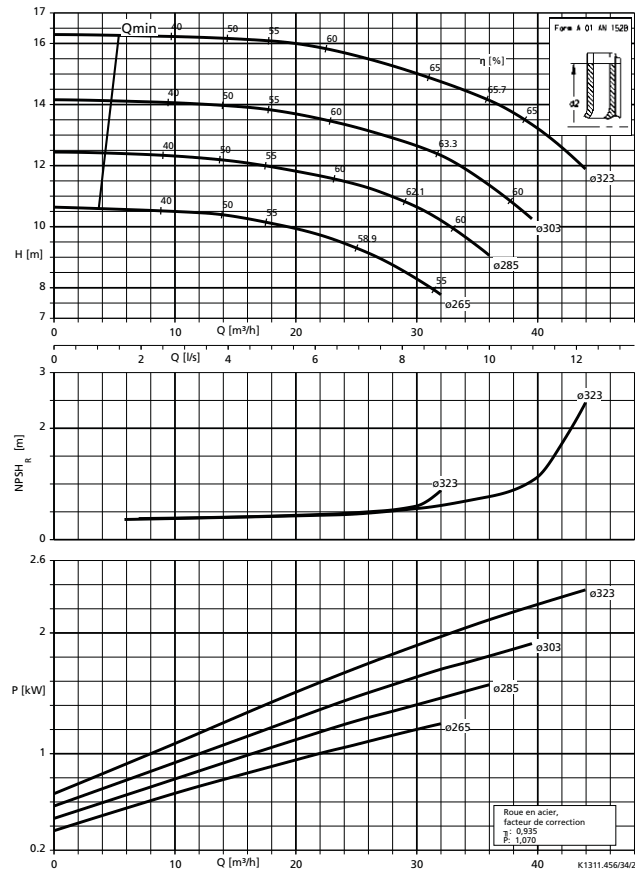


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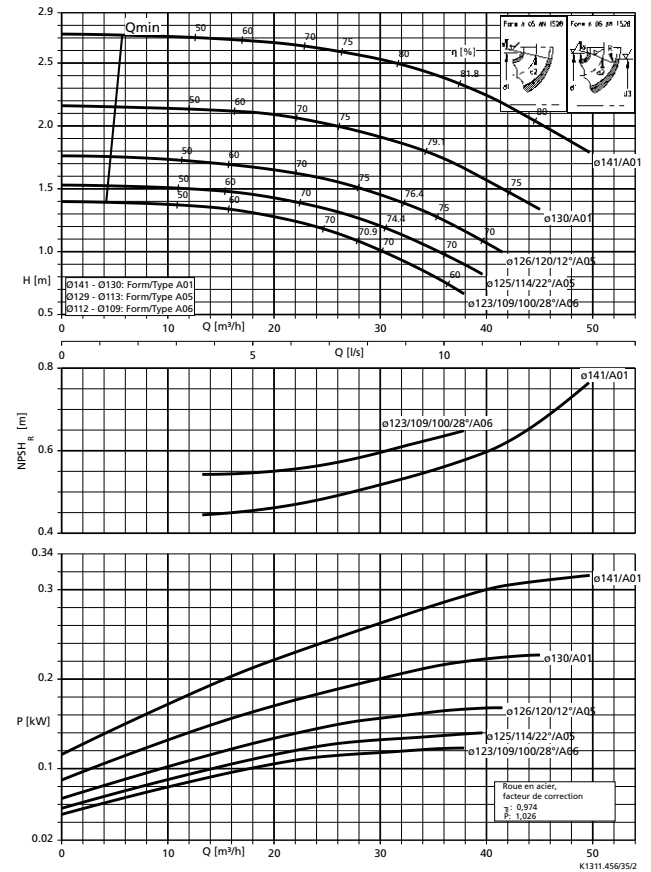


## Courbes caractéristiques

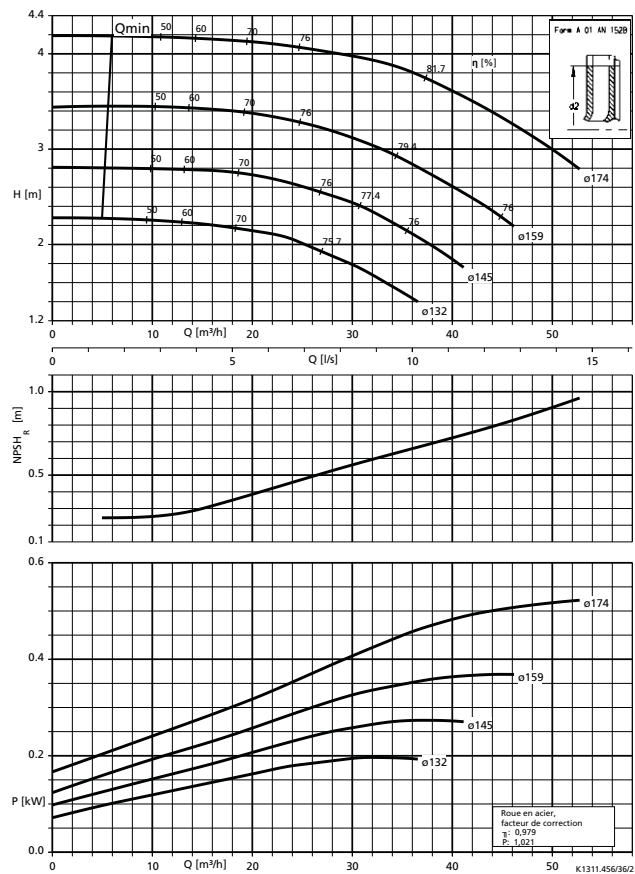
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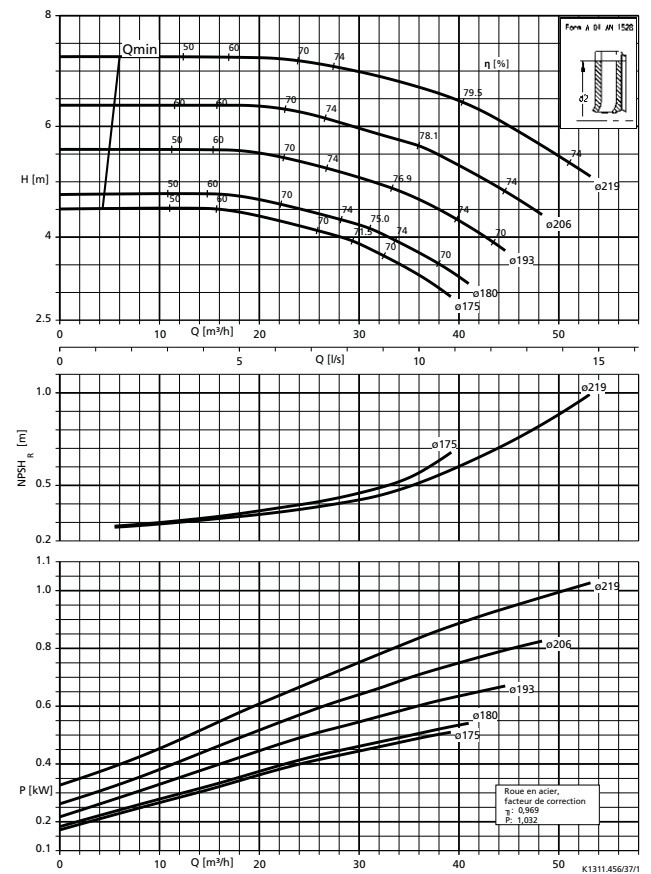
Etanorm 080-065-125,  $n \approx 960 \text{ min}^{-1}$



Etanorm 080-065-160,  $n \approx 960 \text{ min}^{-1}$

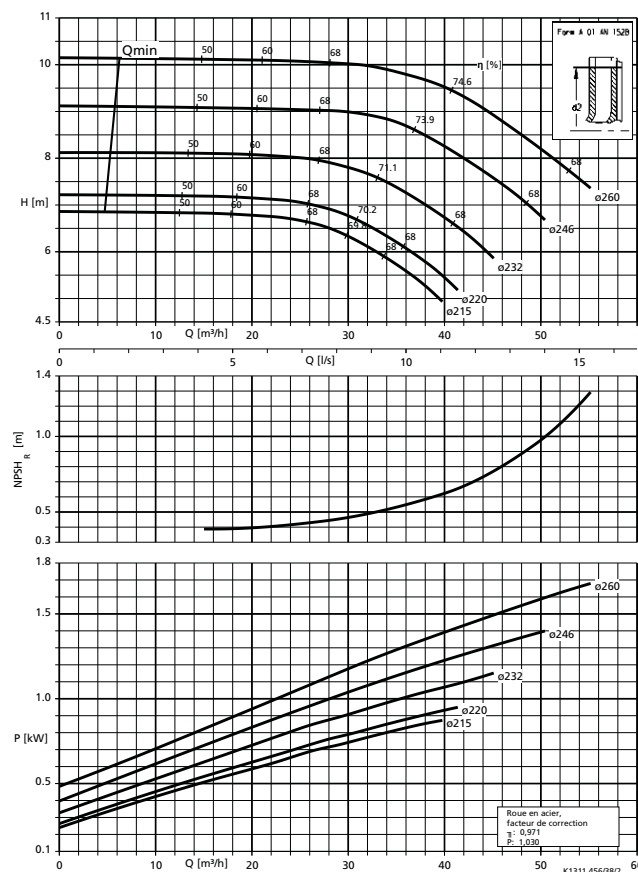


Etanorm 080-065-200,  $n \approx 960 \text{ min}^{-1}$

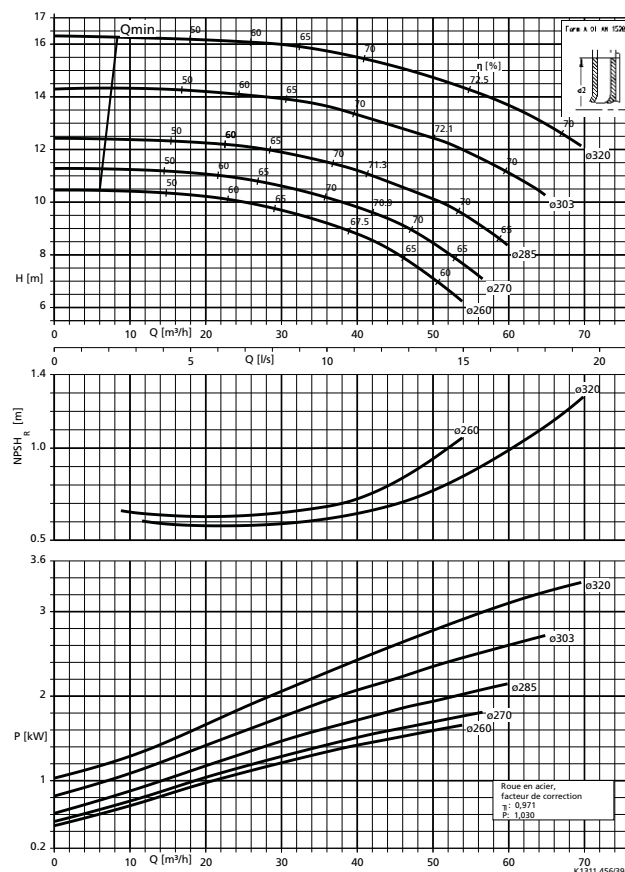


## Courbes caractéristiques

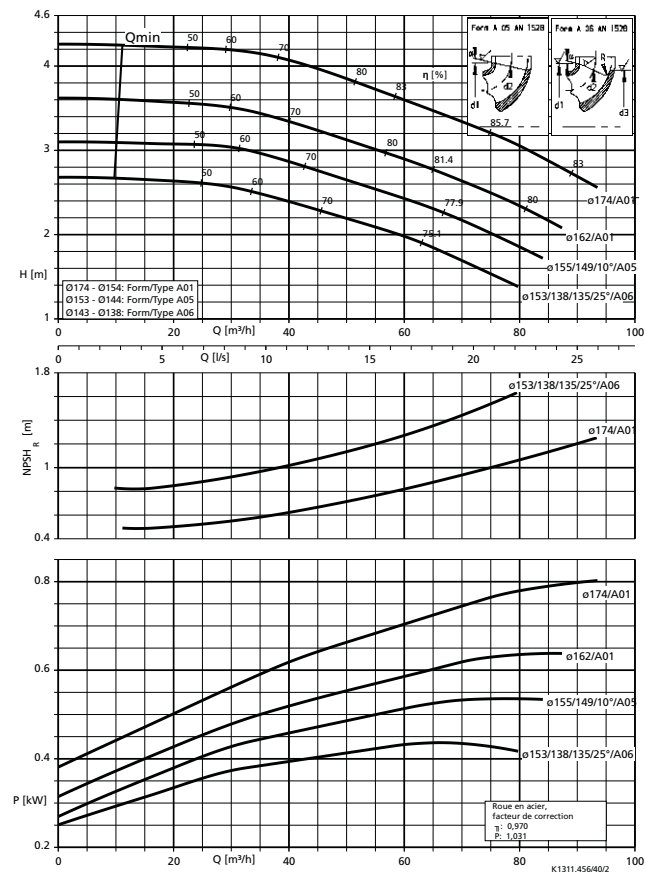
**Etanorm 080-065-250,  $n \approx 960 \text{ min}^{-1}$**



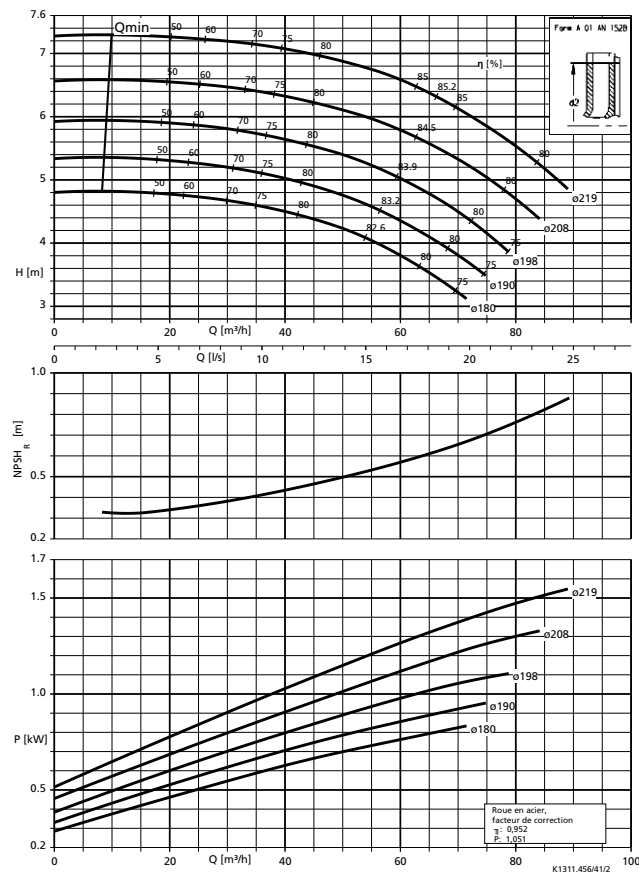
**Etanorm 080-065-315,  $n \approx 960 \text{ min}^{-1}$**



**Etanorm 100-080-160,  $n \approx 960 \text{ min}^{-1}$**

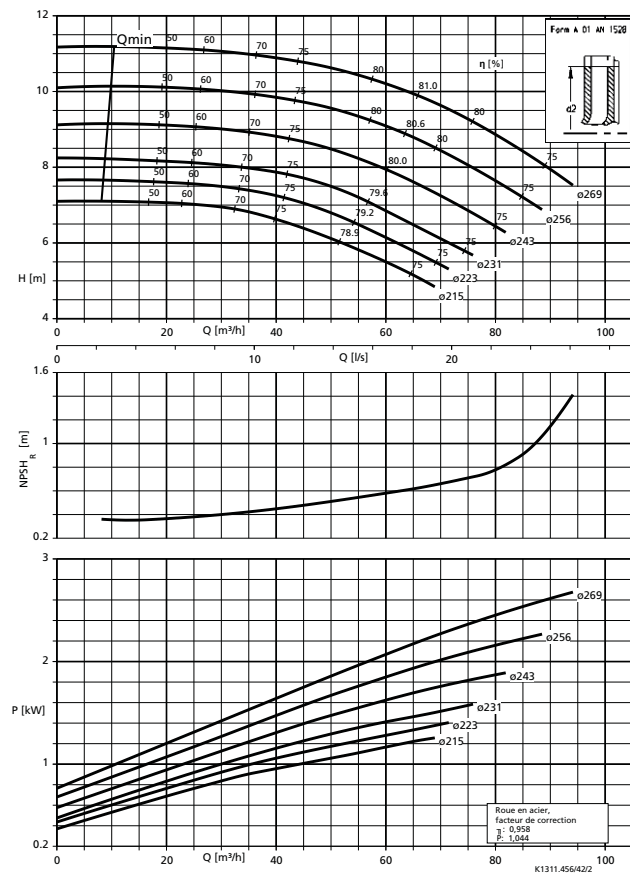


**Etanorm 100-080-200,  $n \approx 960 \text{ min}^{-1}$**

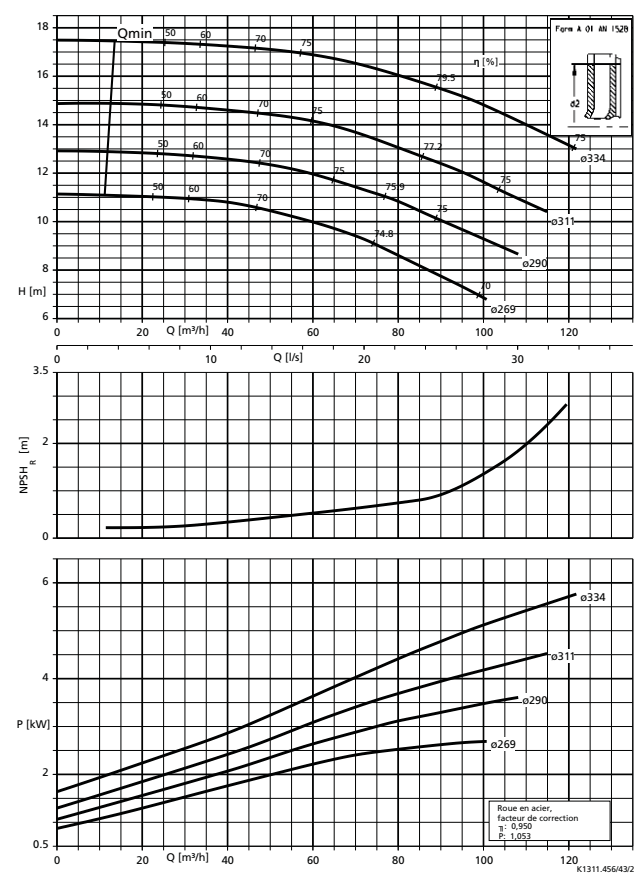


## Courbes caractéristiques

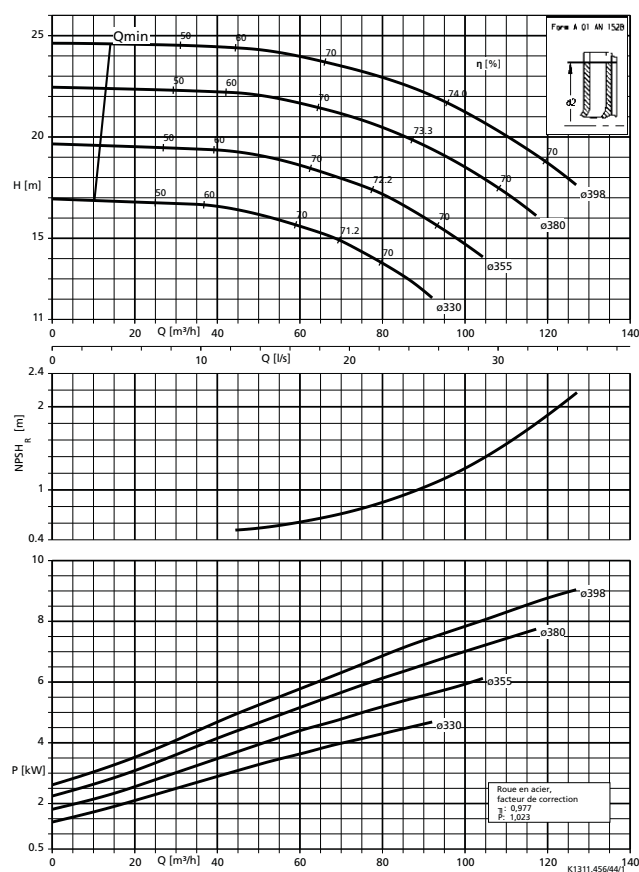
**Etanorm 100-080-250,  $n \approx 960 \text{ min}^{-1}$**



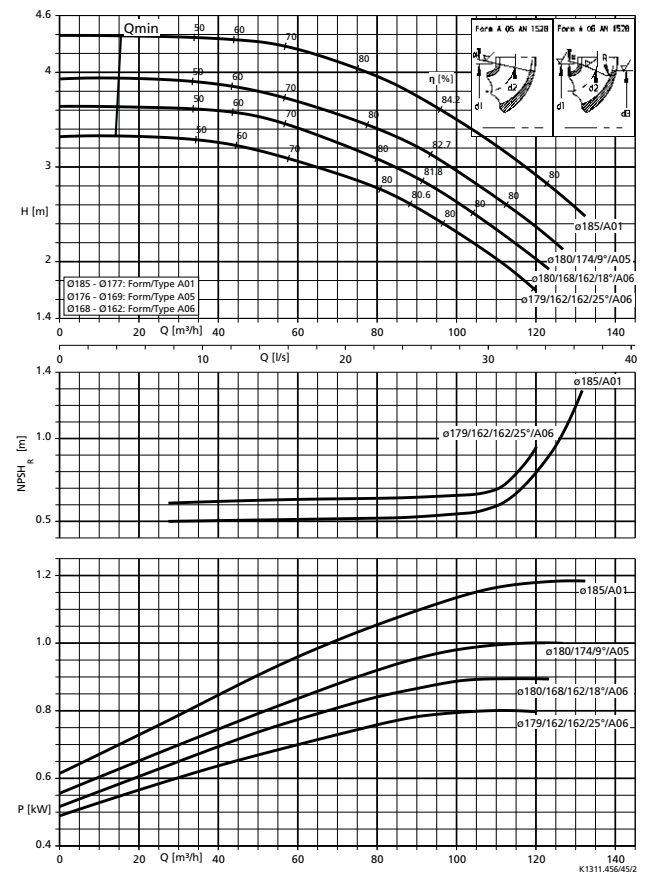
**Etanorm 100-080-315,  $n \approx 960 \text{ min}^{-1}$**



**Etanorm 100-080-400,  $n \approx 960 \text{ min}^{-1}$**

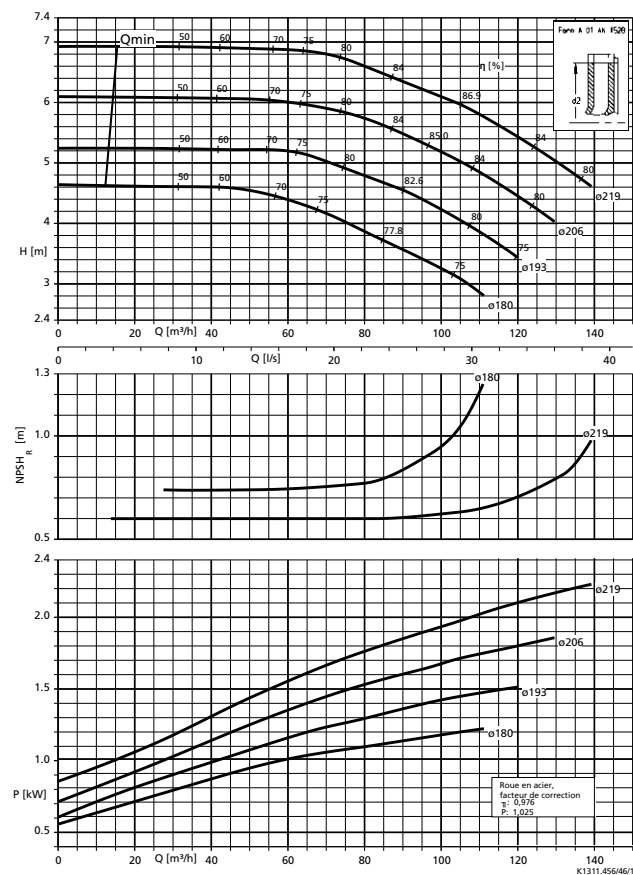


**Etanorm 125-100-160,  $n \approx 960 \text{ min}^{-1}$**

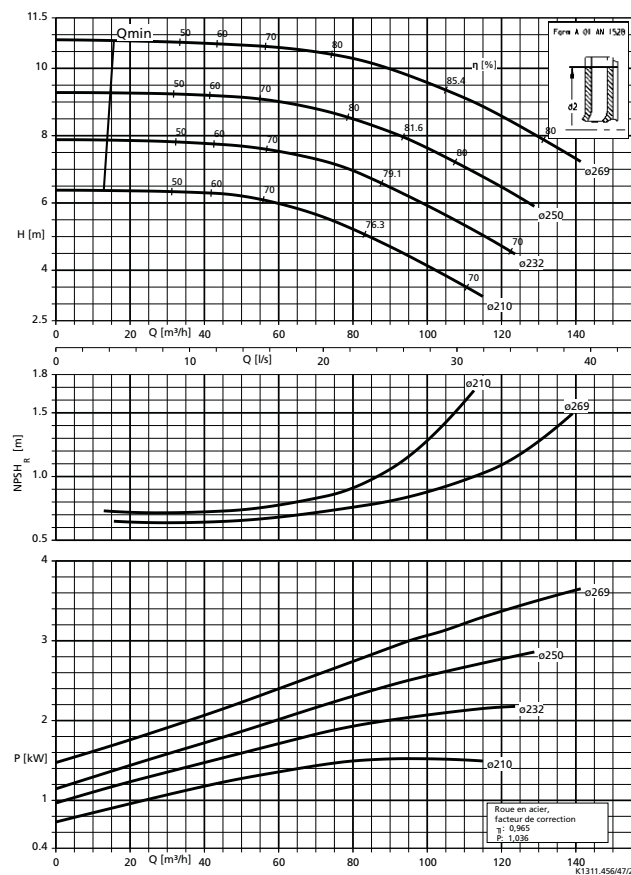


## Courbes caractéristiques

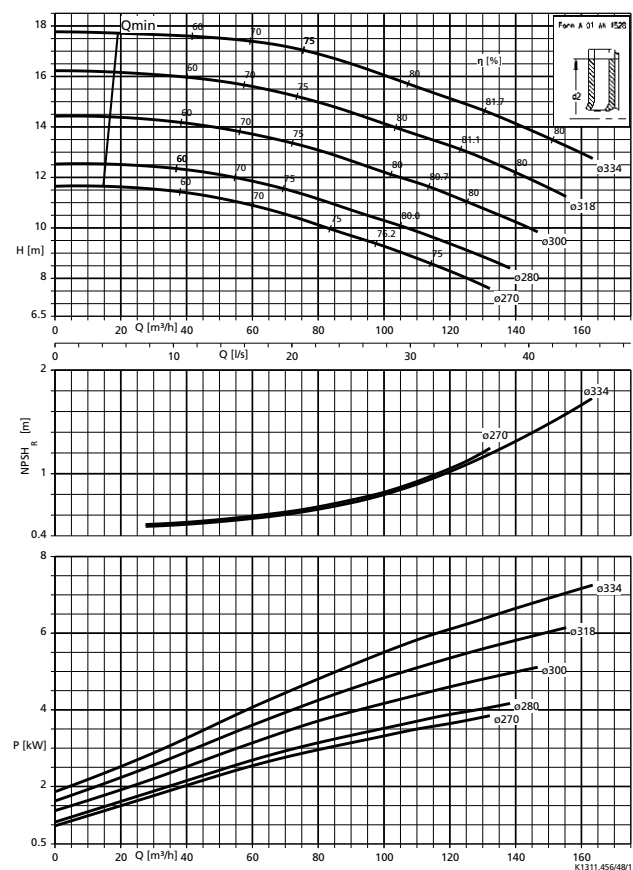
**Etanorm 125-100-200,  $n \approx 960 \text{ min}^{-1}$**



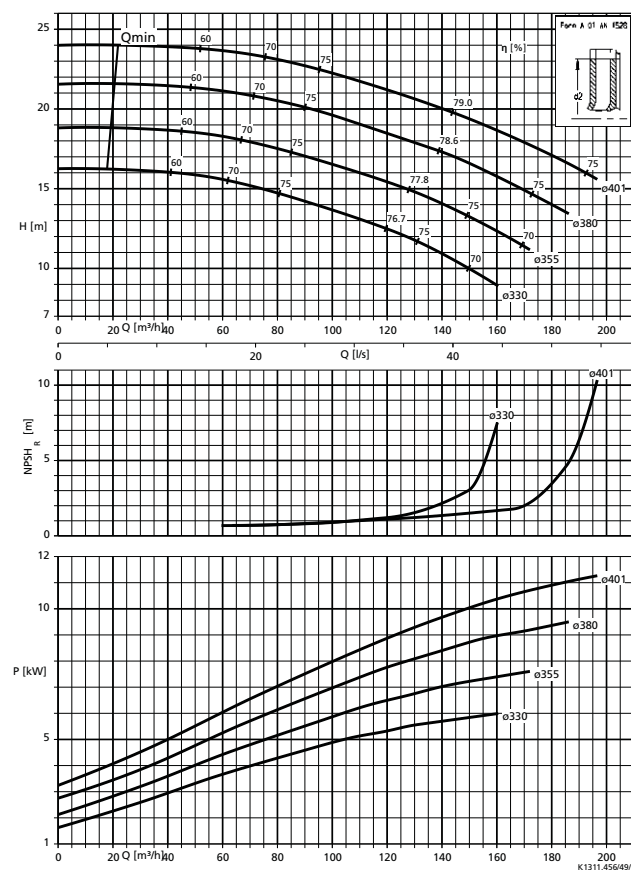
**Etanorm 125-100-250,  $n \approx 960 \text{ min}^{-1}$**



**Etanorm 125-100-315,  $n \approx 960 \text{ min}^{-1}$**

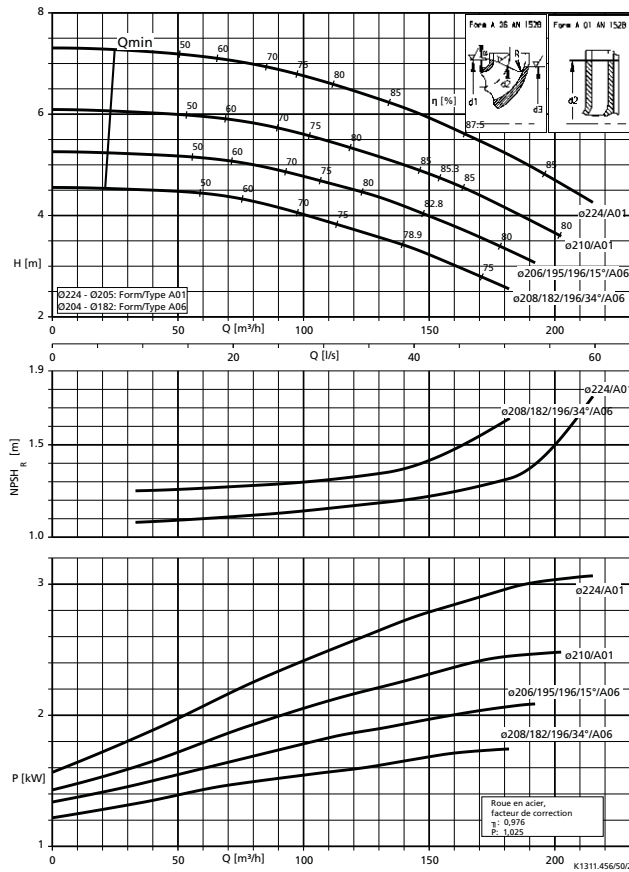


**Etanorm 125-100-400,  $n \approx 960 \text{ min}^{-1}$**

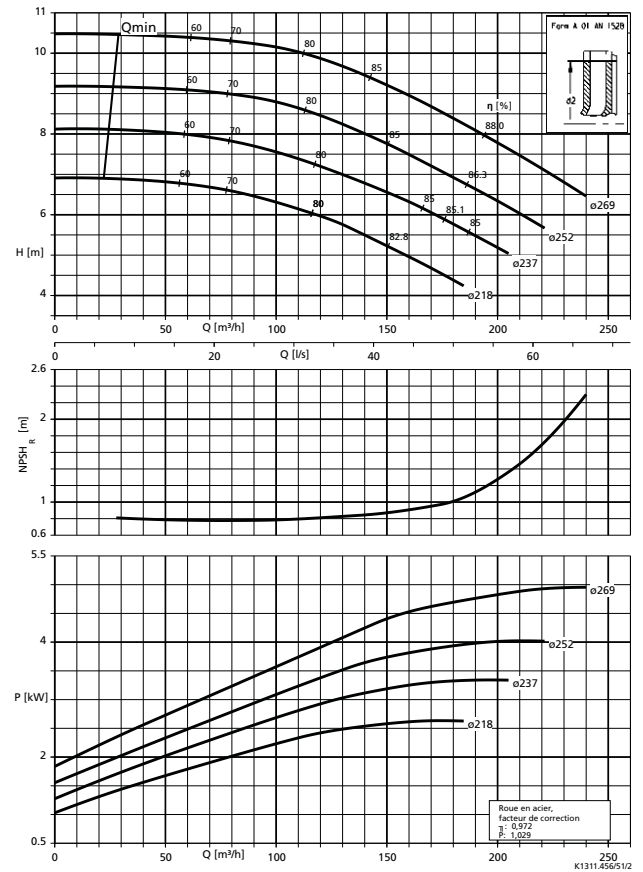


## Courbes caractéristiques

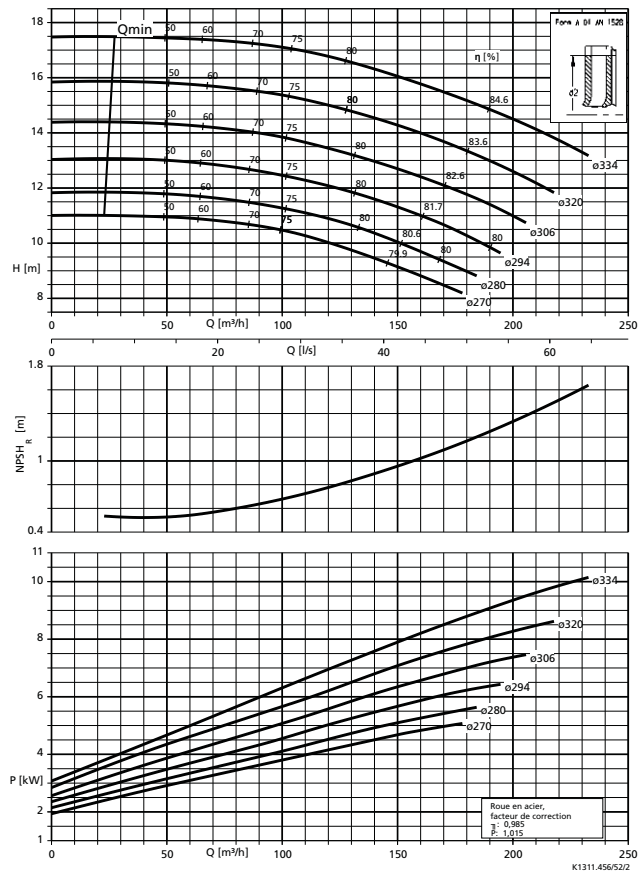
**Etanorm 150-125-200,  $n \approx 960 \text{ min}^{-1}$**



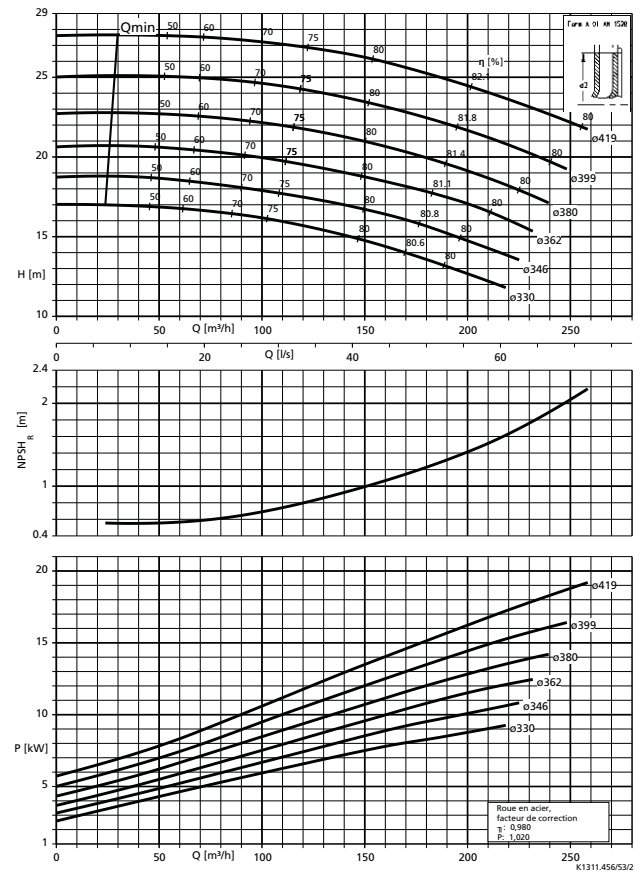
**Etanorm 150-125-250,  $n \approx 960 \text{ min}^{-1}$**



**Etanorm 150-125-315,  $n \approx 960 \text{ min}^{-1}$**

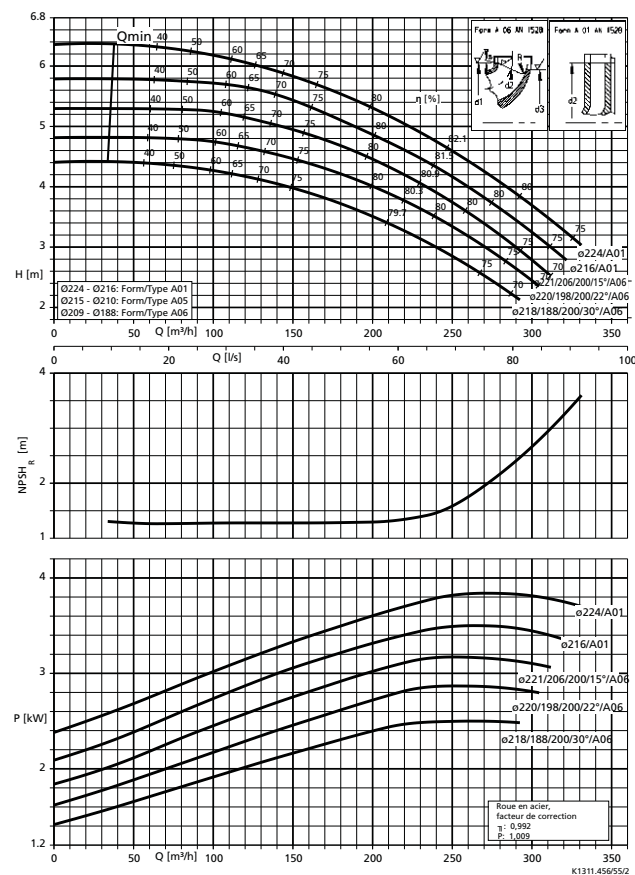


**Etanorm 150-125-400,  $n \approx 960 \text{ min}^{-1}$**

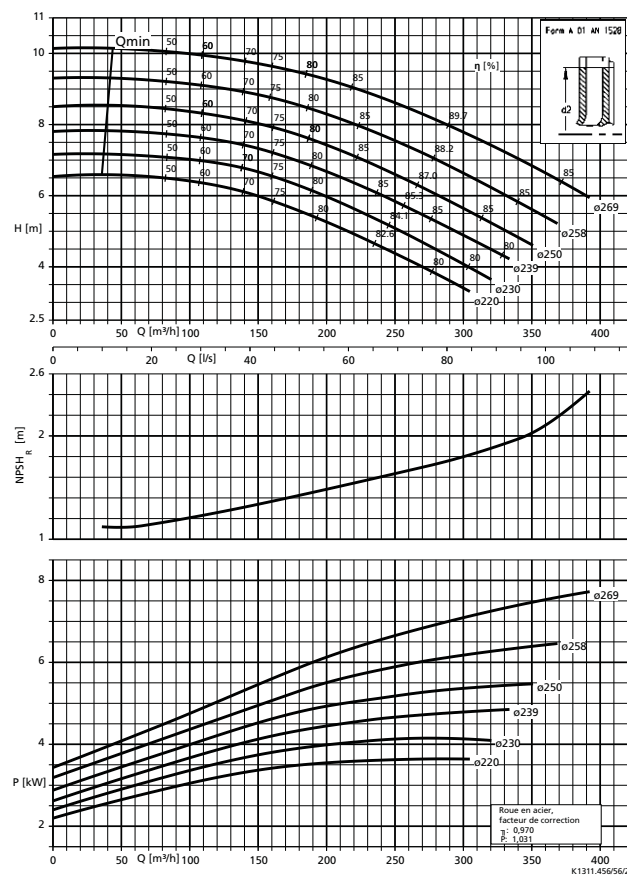


## Courbes caractéristiques

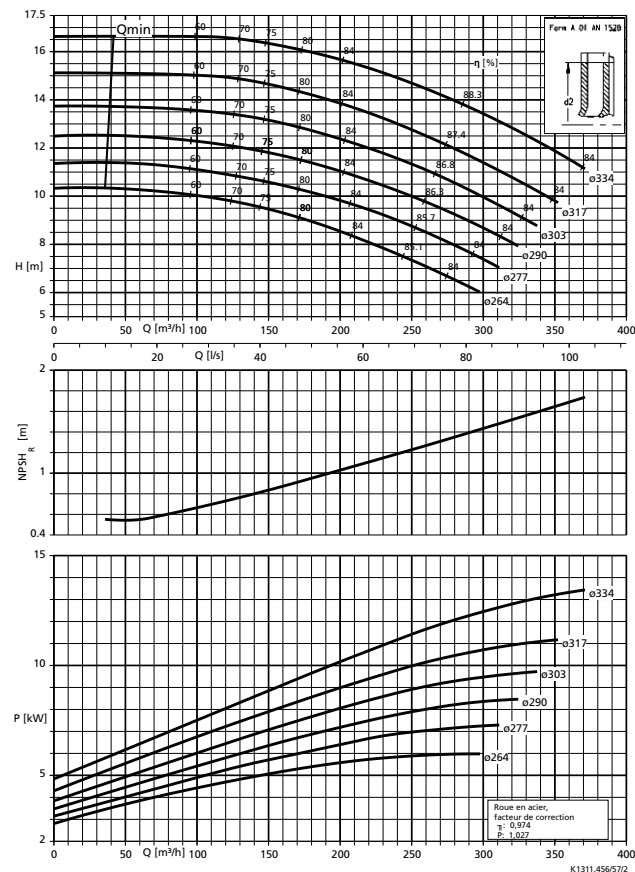
**Etanorm 200-150-200,  $n \approx 960 \text{ min}^{-1}$**



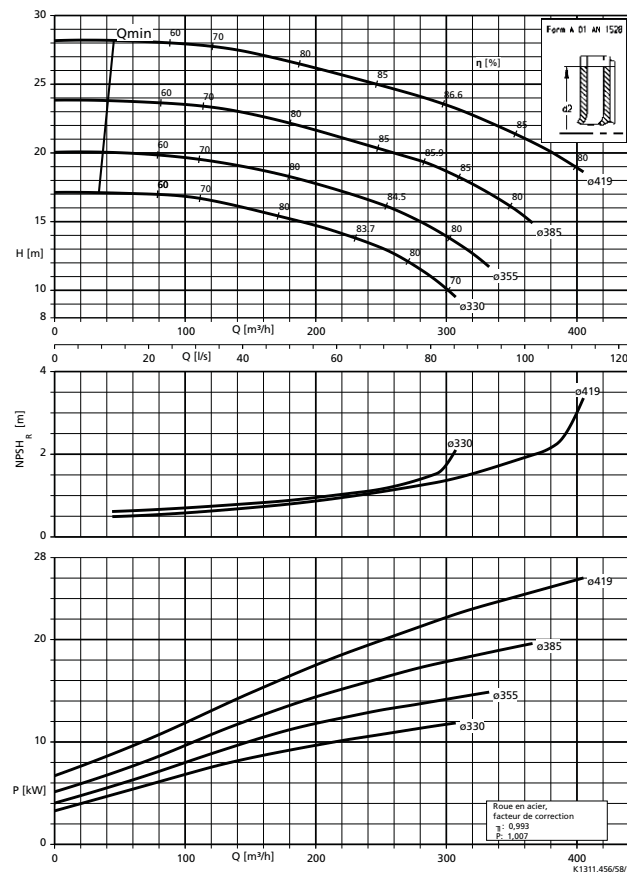
**Etanorm 200-150-250,  $n \approx 960 \text{ min}^{-1}$**



**Etanorm 200-150-315,  $n \approx 960 \text{ min}^{-1}$**

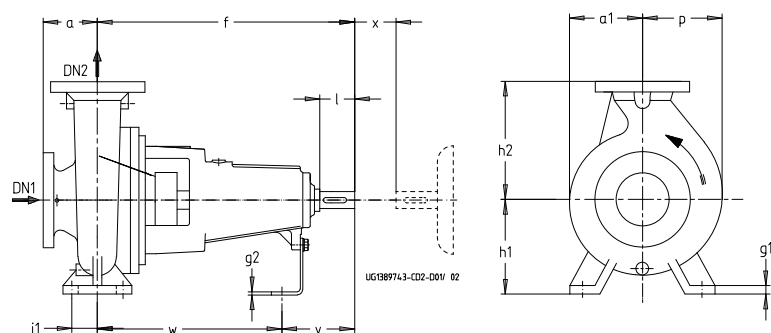


**Etanorm 200-150-400,  $n \approx 960 \text{ min}^{-1}$**



## Dimensions

### Pompe

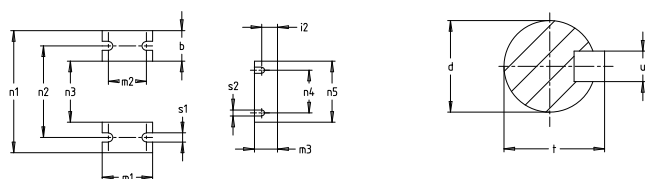


Dimensions [mm]

| Taille        | Support de palier | Support de palier | DN1 | DN2 | a   | a1  | b   | f   | g1 | g2 | h1  | h2  | m1  | m3 | n1  | n3  | n5  | p   |
|---------------|-------------------|-------------------|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|----|-----|-----|-----|-----|
| 040-025-160   | WS_LD_25          | -                 | 40  | 25  | 80  | 118 | 50  | 360 | 15 | 4  | 132 | 160 | 100 | 48 | 240 | 140 | 160 | 118 |
| 040-025-200   | WS_LD_25          | -                 | 40  | 25  | 80  | 142 | 50  | 360 | 15 | 4  | 160 | 180 | 100 | 48 | 240 | 140 | 160 | 142 |
| 050-032-125.1 | WS_LD_25          | -                 | 50  | 32  | 80  | 116 | 50  | 360 | 15 | 4  | 112 | 140 | 100 | 48 | 190 | 90  | 160 | 116 |
| 050-032-160.1 | WS_LD_25          | -                 | 50  | 32  | 80  | 116 | 50  | 360 | 15 | 4  | 132 | 160 | 100 | 48 | 240 | 140 | 160 | 121 |
| 050-032-200.1 | WS_LD_25          | -                 | 50  | 32  | 80  | 142 | 50  | 360 | 18 | 4  | 160 | 180 | 100 | 48 | 240 | 140 | 160 | 142 |
| 050-032-250.1 | WS_LD_25          | -                 | 50  | 32  | 100 | 168 | 65  | 360 | 18 | 6  | 180 | 225 | 125 | 48 | 320 | 190 | 160 | 168 |
| 050-032-125   | WS_LD_25          | -                 | 50  | 32  | 80  | 115 | 50  | 360 | 15 | 4  | 112 | 140 | 100 | 48 | 190 | 90  | 160 | 115 |
| 050-032-160   | WS_LD_25          | -                 | 50  | 32  | 80  | 118 | 50  | 360 | 15 | 4  | 132 | 160 | 100 | 48 | 240 | 140 | 160 | 128 |
| 050-032-200   | WS_LD_25          | -                 | 50  | 32  | 80  | 142 | 50  | 360 | 18 | 4  | 160 | 180 | 100 | 48 | 240 | 140 | 160 | 143 |
| 050-032-250   | WS_LD_25          | -                 | 50  | 32  | 100 | 169 | 65  | 360 | 18 | 6  | 180 | 225 | 125 | 48 | 320 | 190 | 160 | 178 |
| 065-040-125   | WS_LD_25          | -                 | 65  | 40  | 80  | 117 | 50  | 360 | 15 | 4  | 112 | 140 | 100 | 48 | 210 | 110 | 160 | 117 |
| 065-040-160   | WS_LD_25          | -                 | 65  | 40  | 80  | 119 | 50  | 360 | 15 | 4  | 132 | 160 | 100 | 48 | 240 | 140 | 160 | 134 |
| 065-040-200   | WS_LD_25          | -                 | 65  | 40  | 100 | 142 | 50  | 360 | 18 | 4  | 160 | 180 | 100 | 48 | 265 | 165 | 160 | 155 |
| 065-040-250   | WS_LD_25          | -                 | 65  | 40  | 100 | 169 | 65  | 360 | 18 | 6  | 180 | 225 | 125 | 48 | 320 | 190 | 160 | 179 |
| 065-040-315   | WS_LD_35          | -                 | 65  | 40  | 125 | 207 | 65  | 470 | 18 | 6  | 225 | 250 | 125 | 48 | 345 | 215 | 160 | 207 |
| 065-040-315   | -                 | WS_50_LR          | 65  | 40  | 125 | 207 | 65  | 500 | 18 | 6  | 225 | 250 | 125 | 48 | 345 | 215 | 160 | 207 |
| 065-050-125   | WS_25_LS          | -                 | 65  | 50  | 100 | 117 | 50  | 360 | 18 | 4  | 132 | 160 | 100 | 48 | 240 | 140 | 160 | 130 |
| 065-050-160   | WS_25_LS          | -                 | 65  | 50  | 100 | 128 | 50  | 360 | 18 | 4  | 160 | 180 | 100 | 48 | 265 | 165 | 160 | 149 |
| 065-050-200   | WS_25_LS          | -                 | 65  | 50  | 100 | 144 | 50  | 360 | 18 | 4  | 160 | 200 | 100 | 48 | 265 | 165 | 160 | 163 |
| 065-050-250   | WS_25_LS          | -                 | 65  | 50  | 100 | 170 | 65  | 360 | 18 | 6  | 180 | 225 | 125 | 48 | 320 | 190 | 160 | 186 |
| 065-050-315   | WS_35_LS          | -                 | 65  | 50  | 125 | 207 | 65  | 470 | 18 | 6  | 225 | 280 | 125 | 48 | 345 | 215 | 160 | 215 |
| 065-050-315   | -                 | WS_50_LR          | 65  | 50  | 125 | 207 | 65  | 500 | 18 | 6  | 225 | 280 | 125 | 48 | 345 | 215 | 160 | 215 |
| 080-065-125   | WS_25_LS          | -                 | 80  | 65  | 100 | 117 | 65  | 360 | 18 | 4  | 160 | 180 | 125 | 48 | 280 | 150 | 160 | 150 |
| 080-065-160   | WS_25_LS          | -                 | 80  | 65  | 100 | 132 | 65  | 360 | 18 | 4  | 160 | 200 | 125 | 48 | 280 | 150 | 160 | 160 |
| 080-065-200   | WS_25_LS          | -                 | 80  | 65  | 100 | 155 | 65  | 360 | 18 | 6  | 180 | 225 | 125 | 48 | 320 | 190 | 160 | 178 |
| 080-065-250   | WS_35_LS          | -                 | 80  | 65  | 100 | 179 | 80  | 470 | 20 | 6  | 200 | 250 | 160 | 48 | 360 | 200 | 160 | 199 |
| 080-065-315   | WS_35_LS          | -                 | 80  | 65  | 125 | 209 | 80  | 470 | 20 | 6  | 225 | 280 | 160 | 48 | 400 | 240 | 160 | 229 |
| 080-065-315   | -                 | WS_60_LR          | 80  | 65  | 125 | 209 | 80  | 530 | 20 | 6  | 225 | 280 | 160 | 48 | 400 | 240 | 160 | 229 |
| 100-080-160   | WS_25_LS          | -                 | 100 | 80  | 125 | 138 | 65  | 360 | 18 | 6  | 180 | 225 | 125 | 48 | 320 | 190 | 160 | 174 |
| 100-080-200   | WS_35_LS          | -                 | 100 | 80  | 125 | 159 | 65  | 470 | 18 | 4  | 180 | 250 | 125 | 48 | 345 | 215 | 160 | 188 |
| 100-080-250   | WS_35_LS          | -                 | 100 | 80  | 125 | 183 | 80  | 470 | 18 | 6  | 200 | 280 | 160 | 48 | 400 | 240 | 160 | 209 |
| 100-080-315   | WS_35_LS          | -                 | 100 | 80  | 125 | 218 | 80  | 470 | 20 | 6  | 250 | 315 | 160 | 48 | 400 | 240 | 160 | 242 |
| 100-080-315   | -                 | WS_60_LR          | 100 | 80  | 125 | 218 | 80  | 530 | 20 | 6  | 250 | 315 | 160 | 48 | 400 | 240 | 160 | 242 |
| 100-080-400   | WS_55_LS          | -                 | 100 | 80  | 125 | 257 | 80  | 530 | 20 | 6  | 280 | 355 | 160 | 48 | 435 | 275 | 160 | 280 |
| 125-100-160   | WS_35_LS          | -                 | 125 | 100 | 125 | 178 | 80  | 470 | 18 | 6  | 200 | 280 | 160 | 48 | 360 | 200 | 160 | 225 |
| 125-100-200   | WS_35_LS          | -                 | 125 | 100 | 125 | 173 | 80  | 470 | 18 | 6  | 200 | 280 | 160 | 48 | 360 | 200 | 160 | 212 |
| 125-100-250   | WS_35_LS          | -                 | 125 | 100 | 140 | 188 | 80  | 470 | 18 | 6  | 225 | 280 | 160 | 48 | 400 | 240 | 160 | 219 |
| 125-100-315   | WS_35_LS          | -                 | 125 | 100 | 140 | 225 | 80  | 470 | 18 | 6  | 250 | 315 | 160 | 48 | 400 | 240 | 160 | 255 |
| 125-100-315   | -                 | WS_60_LR          | 125 | 100 | 140 | 225 | 80  | 530 | 18 | 6  | 250 | 315 | 160 | 48 | 400 | 240 | 160 | 255 |
| 125-100-400   | WS_55_LS          | -                 | 125 | 100 | 140 | 255 | 100 | 530 | 20 | 6  | 280 | 355 | 200 | 48 | 500 | 300 | 160 | 283 |
| 150-125-200   | WS_35_LS          | -                 | 150 | 125 | 140 | 189 | 80  | 470 | 20 | 6  | 250 | 315 | 160 | 48 | 400 | 240 | 160 | 242 |
| 150-125-250   | WS_35_LS          | -                 | 150 | 125 | 140 | 226 | 80  | 470 | 20 | 6  | 250 | 355 | 160 | 48 | 400 | 240 | 160 | 275 |
| 150-125-250   | -                 | WS_60_LR          | 150 | 125 | 140 | 226 | 80  | 530 | 20 | 6  | 250 | 355 | 160 | 48 | 400 | 240 | 160 | 275 |
| 150-125-315   | WS_55_LS          | -                 | 150 | 125 | 140 | 243 | 100 | 530 | 20 | 6  | 280 | 355 | 200 | 48 | 500 | 300 | 160 | 280 |
| 150-125-400   | WS_55_LS          | -                 | 150 | 125 | 140 | 277 | 100 | 530 | 20 | 6  | 315 | 400 | 200 | 48 | 500 | 300 | 160 | 309 |
| 200-150-200   | WS_35_LS          | -                 | 200 | 150 | 160 | 240 | 100 | 470 | 20 | 6  | 280 | 400 | 200 | 48 | 550 | 350 | 160 | 316 |
| 200-150-250   | WS_35_LS          | -                 | 200 | 150 | 160 | 230 | 100 | 470 | 20 | 6  | 280 | 400 | 200 | 48 | 500 | 300 | 160 | 300 |
| 200-150-250   | -                 | WS_60_LR          | 200 | 150 | 160 | 230 | 100 | 530 | 20 | 6  | 280 | 400 | 200 | 48 | 500 | 300 | 160 | 300 |
| 200-150-315   | WS_55_LS          | -                 | 200 | 150 | 160 | 255 | 100 | 530 | 20 | 6  | 280 | 400 | 200 | 48 | 550 | 350 | 160 | 304 |
| 200-150-400   | WS_55_LS          | -                 | 200 | 150 | 160 | 289 | 100 | 530 | 20 | 6  | 315 | 450 | 200 | 48 | 550 | 350 | 160 | 331 |

## Dimensions

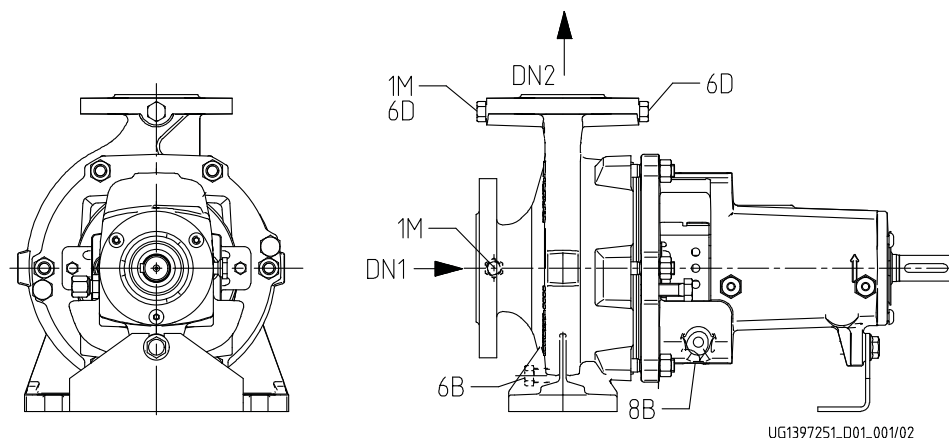
### Dimensions bout d'arbre pompe et pieds de pompe [mm]



### Dimensions [mm]

| Taille        | Support de palier | Support de palier | DN1 | DN2 | d  | i1   | i2 | i   | m2  | n2  | n4  | s1 | s2 | t  | u  | v   | w   | x <sup>(10)</sup> |
|---------------|-------------------|-------------------|-----|-----|----|------|----|-----|-----|-----|-----|----|----|----|----|-----|-----|-------------------|
| 040-025-160   | WS_LD_25          | -                 | 40  | 25  | 24 | 35   | 23 | 50  | 70  | 190 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 040-025-200   | WS_LD_25          | -                 | 40  | 25  | 24 | 35   | 23 | 50  | 70  | 190 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 050-032-125.1 | WS_LD_25          | -                 | 50  | 32  | 24 | 35   | 23 | 50  | 70  | 140 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 050-032-160.1 | WS_LD_25          | -                 | 50  | 32  | 24 | 35   | 23 | 50  | 70  | 190 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 050-032-200.1 | WS_LD_25          | -                 | 50  | 32  | 24 | 35   | 23 | 50  | 70  | 190 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 050-032-250.1 | WS_LD_25          | -                 | 50  | 32  | 24 | 47,5 | 25 | 50  | 95  | 250 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 050-032-125   | WS_LD_25          | -                 | 50  | 32  | 24 | 35   | 23 | 50  | 70  | 140 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 050-032-160   | WS_LD_25          | -                 | 50  | 32  | 24 | 35   | 23 | 50  | 70  | 190 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 050-032-200   | WS_LD_25          | -                 | 50  | 32  | 24 | 35   | 23 | 50  | 70  | 190 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 050-032-250   | WS_LD_25          | -                 | 50  | 32  | 24 | 47,5 | 25 | 50  | 95  | 250 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-040-125   | WS_LD_25          | -                 | 65  | 40  | 24 | 35   | 23 | 50  | 70  | 160 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-040-160   | WS_LD_25          | -                 | 65  | 40  | 24 | 35   | 23 | 50  | 70  | 190 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-040-200   | WS_LD_25          | -                 | 65  | 40  | 24 | 35   | 23 | 50  | 70  | 212 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-040-250   | WS_LD_25          | -                 | 65  | 40  | 24 | 47,5 | 25 | 50  | 95  | 250 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-040-315   | WS_LD_35          | -                 | 65  | 40  | 32 | 47,5 | 24 | 80  | 95  | 280 | 110 | 14 | 14 | 35 | 10 | 130 | 340 | 100               |
| 065-040-315   | -                 | WS_50_LR          | 65  | 40  | 32 | 47,5 | 26 | 80  | 95  | 280 | 110 | 14 | 14 | 35 | 10 | 130 | 370 | 100               |
| 065-050-125   | WS_25_LS          | -                 | 65  | 50  | 24 | 35   | 23 | 50  | 70  | 190 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-050-160   | WS_25_LS          | -                 | 65  | 50  | 24 | 35   | 23 | 50  | 70  | 212 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-050-200   | WS_25_LS          | -                 | 65  | 50  | 24 | 35   | 23 | 50  | 70  | 212 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-050-250   | WS_25_LS          | -                 | 65  | 50  | 24 | 47,5 | 25 | 50  | 95  | 250 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 065-050-315   | WS_35_LS          | -                 | 65  | 50  | 32 | 47,5 | 24 | 80  | 95  | 280 | 110 | 14 | 14 | 35 | 10 | 130 | 340 | 100               |
| 065-050-315   | -                 | WS_50_LR          | 65  | 50  | 32 | 47,5 | 26 | 80  | 95  | 280 | 110 | 14 | 14 | 35 | 10 | 130 | 370 | 100               |
| 080-065-125   | WS_25_LS          | -                 | 80  | 65  | 24 | 47,5 | 23 | 50  | 95  | 212 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 080-065-160   | WS_25_LS          | -                 | 80  | 65  | 24 | 47,5 | 23 | 50  | 95  | 212 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 100               |
| 080-065-200   | WS_25_LS          | -                 | 80  | 65  | 24 | 47,5 | 25 | 50  | 95  | 250 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 140               |
| 080-065-250   | WS_35_LS          | -                 | 80  | 65  | 32 | 60   | 24 | 80  | 120 | 280 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 080-065-315   | WS_35_LS          | -                 | 80  | 65  | 32 | 60   | 24 | 80  | 120 | 315 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 080-065-315   | -                 | WS_60_LR          | 80  | 65  | 42 | 60   | 26 | 110 | 120 | 315 | 110 | 19 | 14 | 45 | 12 | 160 | 370 | 140               |
| 100-080-160   | WS_25_LS          | -                 | 100 | 80  | 24 | 47,5 | 25 | 50  | 95  | 250 | 110 | 14 | 14 | 27 | 8  | 100 | 260 | 140               |
| 100-080-200   | WS_35_LS          | -                 | 100 | 80  | 32 | 47,5 | 22 | 80  | 95  | 280 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 100-080-250   | WS_35_LS          | -                 | 100 | 80  | 32 | 60   | 24 | 80  | 120 | 315 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 100-080-315   | WS_35_LS          | -                 | 100 | 80  | 32 | 60   | 24 | 80  | 120 | 315 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 100-080-315   | -                 | WS_60_LR          | 100 | 80  | 42 | 60   | 26 | 110 | 120 | 315 | 110 | 19 | 14 | 45 | 12 | 160 | 370 | 140               |
| 100-080-400   | WS_55_LS          | -                 | 100 | 80  | 42 | 60   | 25 | 110 | 120 | 355 | 110 | 19 | 14 | 45 | 12 | 160 | 370 | 140               |
| 125-100-160   | WS_35_LS          | -                 | 125 | 100 | 32 | 60   | 24 | 80  | 120 | 280 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 125-100-200   | WS_35_LS          | -                 | 125 | 100 | 32 | 60   | 24 | 80  | 120 | 280 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 125-100-250   | WS_35_LS          | -                 | 125 | 100 | 32 | 60   | 24 | 80  | 120 | 315 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 125-100-315   | WS_35_LS          | -                 | 125 | 100 | 32 | 60   | 24 | 80  | 120 | 315 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 125-100-315   | -                 | WS_60_LR          | 125 | 100 | 42 | 60   | 26 | 110 | 120 | 315 | 110 | 19 | 14 | 45 | 12 | 160 | 370 | 140               |
| 125-100-400   | WS_55_LS          | -                 | 125 | 100 | 42 | 75   | 25 | 110 | 150 | 400 | 110 | 24 | 14 | 45 | 12 | 160 | 370 | 140               |
| 150-125-200   | WS_35_LS          | -                 | 150 | 125 | 32 | 60   | 24 | 80  | 120 | 315 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 150-125-250   | WS_35_LS          | -                 | 150 | 125 | 32 | 60   | 24 | 80  | 120 | 315 | 110 | 19 | 14 | 35 | 10 | 130 | 340 | 140               |
| 150-125-250   | -                 | WS_60_LR          | 150 | 125 | 42 | 60   | 26 | 110 | 120 | 315 | 110 | 19 | 14 | 45 | 12 | 160 | 370 | 140               |
| 150-125-315   | WS_55_LS          | -                 | 150 | 125 | 42 | 75   | 25 | 110 | 150 | 400 | 110 | 24 | 14 | 45 | 12 | 160 | 370 | 140               |
| 150-125-400   | WS_55_LS          | -                 | 150 | 125 | 42 | 75   | 25 | 110 | 150 | 400 | 110 | 24 | 14 | 45 | 12 | 160 | 370 | 140               |
| 200-150-200   | WS_35_LS          | -                 | 200 | 150 | 32 | 75   | 24 | 80  | 150 | 450 | 110 | 24 | 14 | 35 | 10 | 130 | 340 | 140               |
| 200-150-250   | WS_35_LS          | -                 | 200 | 150 | 32 | 75   | 24 | 80  | 150 | 400 | 110 | 24 | 14 | 35 | 10 | 130 | 340 | 140               |
| 200-150-250   | -                 | WS_60_LR          | 200 | 150 | 42 | 75   | 26 | 110 | 150 | 400 | 110 | 24 | 14 | 45 | 12 | 160 | 370 | 140               |
| 200-150-315   | WS_55_LS          | -                 | 200 | 150 | 42 | 75   | 25 | 110 | 150 | 450 | 110 | 24 | 14 | 45 | 12 | 160 | 370 | 140               |
| 200-150-400   | WS_55_LS          | -                 | 200 | 150 | 42 | 75   | 25 | 110 | 150 | 450 | 110 | 24 | 14 | 45 | 12 | 160 | 370 | 140               |

## Variantes de raccordement



## Raccords sur la pompe

### Variantes de raccordement

| Raccord      | Exécution                         | Conception                                       | Position               |
|--------------|-----------------------------------|--------------------------------------------------|------------------------|
| 1M           | Raccord de prise de pression      | Pour groupes motopompes avec capteur de pression | DN2                    |
| 6B           | Vidange fluide pompé              | Alésé et obturé                                  | -                      |
| 6D           | Remplissage et purge fluide pompé | Alésé et obturé                                  | DN2, côté aspiration   |
| 8B           | Vidange liquide de fuite          | Alésé et obturé                                  | -                      |
| 1M optionnel | Raccord de prise de pression      | Alésé et obturé ou avec capteur de pression      | DN1                    |
| 6D optionnel | Remplissage et purge fluide pompé | Alésé et obturé                                  | DN2, côté entraînement |

## Variantes de brides

### Variantes de brides en fonction des matériaux

| Variante de matériau | Norme     | Plage de pression | Norme                    | Plage de pression |
|----------------------|-----------|-------------------|--------------------------|-------------------|
| G, GB, GC            | EN 1092-2 | PN 16             | Alésé suivant ASME B16.1 | Class 125         |
| S, SB, SC            | EN 1092-2 | PN 16             | Alésé suivant ASME B16.1 | Class 125         |
| B                    | EN 1092-3 | PN 10             | Alésé suivant ASME B16.1 | Class 125         |
| C                    | EN 1092-1 | PN 16             | Alésé suivant ASME B16.5 | Class 150         |

## Étendue de la fourniture

Selon la variante choisie, les composants suivants font partie de la livraison :

### Étendue de la fourniture

|                          |
|--------------------------|
| Étendue de la fourniture |
| Pompe                    |
| Socle                    |
| Accouplement             |
| Protège-accouplement     |
| Moteur                   |

## Liste des pièces de rechange

Sur demande

**motralec**

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Tel. : 01.39.97.65.10 / Fax. : 01.39.97.68.48  
Demande de prix / e-mail : service-commercial@motralec.com  
[www.motralec.com](http://www.motralec.com)