



## **Kettenräder**

Teilbereich – Programm Norm

## **Roues à chaînes**

Extrait – Programme Standard

## **Chain wheels**

Summary – Standard Program



## Was zählt ist der Erfolg – wir helfen Ihnen dabei

Eindeutige Wettbewerbsvorteile und Chancen liegen heute in der Flexibilität, Schnelligkeit, Innovation und in der permanenten Optimierung. Wir verstehen die Zeit als immer wichtiger werdenden Wettbewerbsfaktor. In klar definierten Märkten bieten wir fortschrittliche Problemlösungen mit dem Ziel eines grossen Kundennutzens an. Mit international anerkannter Qualität – das Gesamtunternehmen ist zertifiziert nach ISO 9001:2008 – hoher Lieferbereitschaft und maximaler Zuverlässigkeit wollen wir unseren Kunden echte Partner sein. Dabei wissen wir, dass sich eine dauerhafte Partnerschaft im gegenseitigen Vertrauen misst, im Verständnis zueinander aufbaut und in der Zuverlässigkeit festigt. Alle Nozag-Mitarbeiter engagieren sich tagtäglich dafür, dieses Vertrauen unserer Partner – sei es als Kunde oder als Lieferant – zu gewinnen. Mit motivierten, überdurchschnittlich qualifizierten Mitarbeitern sowie modern eingerichteten Arbeitsplätzen legen wir die Basis dazu.

Die eigene Fertigung wird ergänzt mit unserer leistungsfähigen Logistik. Dazu gehört natürlich einfachste und direkteste Kommunikation mit unseren Partnern. Gesetzliche Vorschriften respektieren wir und halten sie ein. Insbesondere die, die unsere Umwelt sowie die Gesundheit und Sicherheit unserer Mitarbeitenden betreffen.

## Votre réussite nous importe – nous contribuons à votre succès

Aujourd'hui des avantages indiscutables de compétitivité sont liés à la flexibilité, rapidité, innovation et optimisation permanente. Nous considérons le temps comme un facteur majeur de la compétitivité. Pour des marchés clairement définis, nous offrons des solutions avancées ayant pour but le service optimal du client. Avec une fiabilité maximale, notre qualité reconnue internationalement – l'ensemble de notre entreprise est certifiée ISO 9001:2008 – et notre grande disponibilité de fourniture, nous voulons être un vrai partenaire pour nos clients. Ainsi, nous savons qu'un partenariat durable se mesure par une confiance réciproque se développant avec la compréhension mutuelle et se consolidant avec la fiabilité. Tous les collaborateurs de Nozag s'attellent au quotidien à trouver des solutions pour aider et mériter la juste confiance de nos partenaires clients ou fournisseurs. Nous créons aussi le cadre pour leur réussite en mettant à disposition nos spécialistes les plus qualifiés, ainsi que des moyens de travail performants.

Notre fabrication à la pointe du progrès est aussi dotée d'une logistique efficace. Nous respectons et appliquons les prescriptions légales, en particulier celles qui ont trait à l'environnement, ainsi qu'à la santé et à la sécurité de nos collaborateurs.

## What counts is success – We help you achieve it

Today clear competitive advantages and opportunities depend on flexibility, speed, innovation and continuous improvement. We understand that time has become one of the most significant competitive factors. In clearly defined markets, we offer advanced solutions that aim at optimum customer value. With internationally recognized quality, – our entire company is certified according to ISO 9001:2008 – high stock availability and maximum reliability, we aim at being a true partner for our customers. We are aware that a lasting partnership is built on mutual trust and understanding and will be further strengthened by absolute liability. Nozag employees commit themselves every day to win the confidence of clients and suppliers. Highly, above-average skilled employees and state-of-the-art facilities are the basis for that.

In-house manufacturing is supported by high-performance logistics; this going along with simple, direct and to-the-point communication with our partners. We respect and comply with all pertinent laws, especially those that protect the environment and the health and safety of our workers.



## Programm Norm / Programme standard / Standard Program

- 1 Stirnräder Modul 0.3 bis 8 / Engrenages modules 0.3 jusque 8 / Spur gears module 0.3 to 8
- 2 Kegelräder bis Modul 6 / Roues coniques jusque module 6 / Bevel gears up to module 6
- 3 Schnecken und Schneckenräder / Vis et roues à vis sans fin / Worms and worm wheels
- 4 Norm-Zahnstangen / Crémaillères normalisées / Standard racks
- Vis/écrous à filet trapézoïdal / Trapezoid threaded screws, trapezoid threaded nuts
- 6 Ketten und Kettenräder / Chaînes à rouleaux et roues à chaîne / Chains and chain wheels
- 7 Kupplungen / Accouplements / Couplings
- 8 Gehärtete und geschliffene Wellen / Arbres trempés-rectifiés / Hardened precision steel shafts
- 9 Fertigung nach Zeichnung / Fabrication selon dessin / Manufacturing according to drawing



## Programm System / Programme des systemes / System Program

- 1 Spindelhubgetriebe / Vérins à vis / Screw jacks
- 2 Kegelradgetriebe / Renvois d'angle / Bevel gearboxes
- 3 Verbindungswellen / Arbres de raccordement / Connecting shafts
- 4 Linearantriebe / Actionneurs linéaires / Linear drives
- 5 Getriebemotoren, Schneckengetriebe / Motorréducteurs et réducteurs à roue et vis sans fin / Gear, worm gear
- 6 Kundenspezifische Baugruppen / Réalisations speciale, plans Clients / Customer-specific construction group

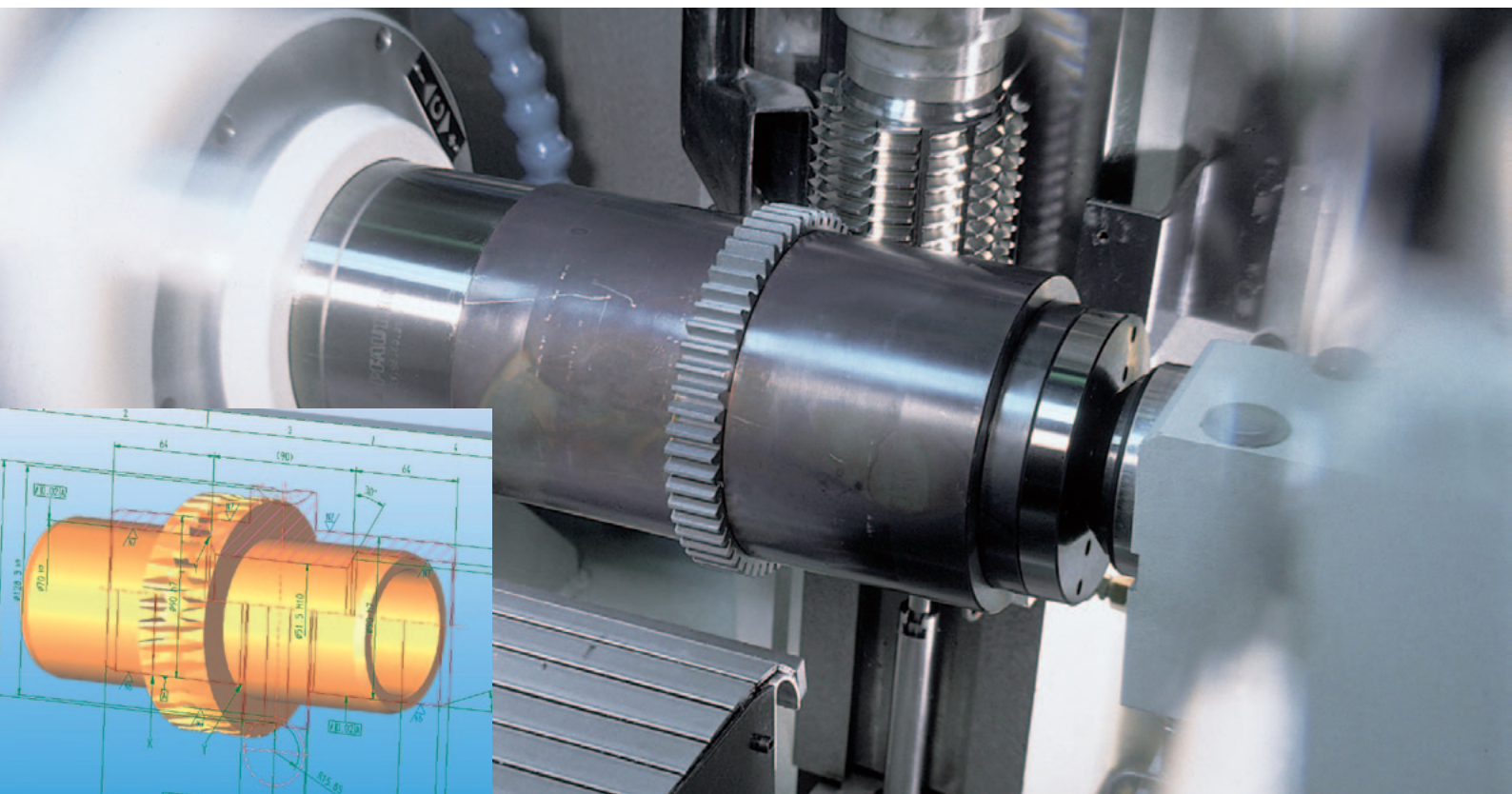
Verlangen Sie unseren separaten Katalog «Programm System»  
Demandez notre catalogue séparément «Programme des Systemes»  
Request our separate catalog «systems program»



## Verzahnungskomponenten, elektromechanische und pneumatische Antriebe

### Composants à engrenages, organes de transmission électromécaniques et pneumatiques

### Toothed components, electromechanical and pneumatic drives



## **Von Ihrer Skizze zu fertigen Komponenten** **Composants à compléter par votre croquis** **Components made from your drawing**

### **Nutzen Sie unsere Stärken und Kompetenzen**

- Eigene Produktion am Standort Pfäffikon
- Hohe Flexibilität
- Schweizer Qualität
- Kurze Lieferzeiten
- Ein persönlicher Ansprechpartner für die Beschaffung des fertigen Bauteils
- Auch Kleinserien
- Thermische oder galvanische Behandlungen

### **Verzahnungsteile aus eigener Fertigung**

- Modul 0.3 bis 8 mm
- Bis Ø 500 mm
- Material: Stahl, rostfreier Edelstahl, Bronze, Messing, Kunststoff, Kunststoff mit Stahlkern, Hartgewebe etc.
- Auch schrägverzahnt, gehärtet und geschliffen

### **Utilisez nos points forts et notre compétence**

- propre fabrication sur le site Pfäffikon
- haute flexibilité
- qualité suisse
- courts délais de livraison
- un interlocuteur personnel pour vous procurer les pièces finies
- aussi des petites séries
- traitement thermique ou galvanisé

### **Engrenages de propre fabrication**

- module 0,3 jusque 8
- jusque diamètre 500 mm
- matières: acier, inox, bronze, laiton, plastique, plastique avec moyeu en acier, tissu stratifié etc.
- également denture hélicoïdale, trempée et rectifiée

### **Take advantage of our strengths and skills**

- our own production in Pfäffikon
- high flexibility
- Swiss quality
- short delivery times
- one partner for the sourcing of finished components
- even small batch series
- thermal or galvanic treatment

### **Gears from our own production**

- module from 0.3 to 8 mm
- up to Ø 500 mm
- material: steel, stainless steel, bronze, brass, plastic, plastic with steel-core, laminated fabric, etc.
- even helical toothed, hardened and ground



## **Von Ihrer Skizze zu fertigen Komponenten Composants à compléter par votre croquis Components made from your drawing**

### **Auf Wunsch übernehmen wir die Logistik für Sie**

- Abrufaufträge mit Laufzeit bis 12 Monate
- Lieferung in Austauschgebinden

### **Sie profitieren**

- Günstiger Preis durch grössere Serie
- Kurze Lieferzeit bei einzelnen Abrufen
- Tiefe Lagerkosten
- Keine Materialpreisschwankungen

### **Sur demande nous assurons votre logistique**

- livraisons partielles espacées sur 12 mois
- livraison et accord d'échange

### **Vous profitez**

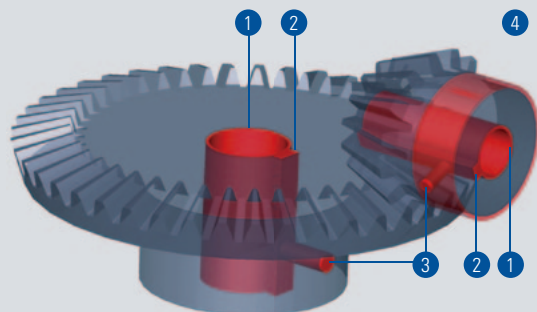
- prix de série avantageux
- courts délais de livraison sur appels isolés
- petits frais d'emmagasinement
- pas de variations des prix matière

### **Upon request we take over the logistics for you**

- call orders with duration of up to 12 months
- delivery in swap containers

### **You benefit of**

- reasonable price due to larger series
- short delivery time for each call-off
- smaller warehouse costs
- no material price fluctuations



**1** Bohrung grösser?  
alésage plus grand ?  
bore bigger?

**2** Keilnute?  
rainure de clavette ?  
keyway?

**3** Gewindebohrung?  
taraudage ?  
threaded bore?

**4** Nabe abdrehen?  
supprimer l'épaulement ?  
lathe off hub?





**Einfacher geht's nicht:  
[www.nozag.ch](http://www.nozag.ch)  
[www.nozag.de](http://www.nozag.de)**

- Benutzerfreundlicher Katalog mit Download-Möglichkeit einzelner Seiten für Ihre Dokumentation
- 3D-CAD-Download vom gesamten Nozag-Sortiment

Wenn Sie wünschen, beraten/unterstützen wir Sie gerne per Telefon oder bei Ihnen vor Ort.

Als Antriebstechnik-Spezialist befassen wir uns mit der Entwicklung, Herstellung und dem Vertrieb von Standard- oder Sonderausführungen von Verzahnungskomponenten, Kettenrädern, Spindelhubgetrieben, Kegelradgetrieben, Linearantrieben, sowie weiteren Antriebs-Technik-Komponenten und Sondergetrieben.

Nozag AG produziert ihre Produkte vorwiegend im Schweizer Stammhaus Pfäffikon/ZH. In den Märkten Schweiz, Deutschland, Frankreich sind wir mit eigenen Tochterfirmen und in vielen anderen Industrieländern über Handelshäuser vertreten.

**Sie finden bei uns**

- Eigene Produktion und Montage
- Entwicklung, Technische Beratung
- Schnellen Lieferservice – viele Komponenten ab Lager
- Kontinuität: Seit 1966 am Markt
- Über 35 Jahre Erfahrung in der Herstellung von Getrieben
- Qualität: zertifiziert nach ISO 9001 : 2008

**Plus simple ne va pas:  
[www.nozag.ch](http://www.nozag.ch)  
[www.nozag.fr](http://www.nozag.fr)**

- catalogue d'utilisation agréable. Si nécessaire download des pages catalogue de votre utilisation.
- CAD-3D-Download de tout l'assortiment Nozag

Si vous le souhaitez nous vous conseillons/assistons volontiers par téléphone ou chez vous sur site.

En tant que spécialistes en systèmes de transmission, nous sommes actifs dans le développement, la production et la vente de solutions standards, ainsi que de réalisations spécifiques de pièces d'engrenage, de roues à chaînes, de vérins à vis, d'engrenages coniques, d'actionneurs linéaires et d'autres composants spéciaux de transmission et d'engrenage.

Nous produisons à Pfäffikon/ZH en Suisse, sur notre site de la maison mère. Nozag est active sur le marché suisse ainsi qu'en Allemagne, en France et est représentée dans beaucoup d'autres pays industrialisés par ses revendeurs.

**Vous trouvez chez nous**

- Propre site de fabrication et de montage
- Développement, assistance technique
- Livraisons rapides – large choix de composants en stock
- Continuité : sur le marché depuis 1966
- Expériences dans la production de vérins depuis plus de 35 ans
- Qualité : Certification ISO 9001 : 2008

**It couldn't be easier:  
[www.nozag.ch](http://www.nozag.ch)**

- User-friendly catalog. If required, download individual catalog pages for your documentation.
- 3D-CAD download from the entire range of Nozag products

If you wish to be advised or supported in any way, we will be pleased to do this by phone or on site.

As a drive systems specialist, we deal with the development, manufacture and sale of standard or custom-designed gear components, sprockets, screw jacks, bevel gear drives, linear drives as well as other drive system components and special gears.

Nozag's products are manufactured mainly at the Swiss headquarters in Pfäffikon/ZH. We have subsidiaries in Switzerland, Germany and France and are represented by business partners in many other industrial countries worldwide.

**At Nozag you will find**

- In-house production and assembly
- Development, technical consultation
- Fast delivery service – many components from stock
- Continuity: on the market since 1966
- More than 35 years' experience in the manufacturing of gears
- Quality: ISO 9001 : certified 2008

## 9. Kettenräder / Roues à chaînes / Chain wheels

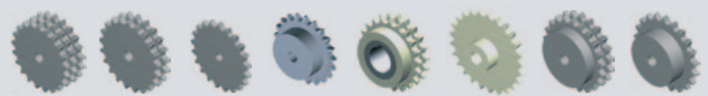
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### Sortimentsübersicht / Gamme de produits / Productrange

#### Kettenräder / Roues à chaînes / Chain wheels



|                                                                              | 03 | 04 | 05 | 06 | 081 | 083 | 084 | 08 | 10 | 12 | 16 | 20 | 24 |
|------------------------------------------------------------------------------|----|----|----|----|-----|-----|-----|----|----|----|----|----|----|
| <b>Stahl</b><br><b>Acier</b><br><b>Steel</b>                                 | ■  | ■  | ■  | ■  | ■   | ■   | ■   | ■  | ■  | ■  | ■  | ■  | ■  |
| <b>Rostfreier Stahl</b><br><b>Acier inoxydable</b><br><b>Stainless steel</b> |    |    |    | ■  |     |     |     | ■  | ■  | ■  |    |    |    |
| <b>Kunststoff</b><br><b>Plastique</b><br><b>Plastic</b>                      |    | ■  | ■  | ■  | ■   | ■   |     | ■  |    |    |    |    |    |



Rostfrei  
Inoxydable  
Stainless



Bearbeitung / Einbaufertig  
Usinage / prêt au montage  
Machining / ready to install

## Berechnungsgrößen Grandeurs de calcul Parameters

Vor der Berechnung der Gliederzahl und des Achsabstandes sind der ungefähre Achsabstand  $a$  (mm), die Zähnezahlen  $z_1$  und  $z_2$  sowie die Teilung  $p$  (mm) zu wählen.

$$x = \frac{2}{p} \cdot a + \frac{z_1 + z_2}{2} + \frac{\frac{(z_2 - z_1)^2}{2\pi^2}}{\frac{2}{p} \cdot a}$$

Die erreichte Gliederzahl wird auf eine ganze, möglichst gerade Gliederzahl gerundet, damit kein gekröpfted Glied eingebaut werden muss, (Bruchkraftreduktion um 20%). Mit dieser Gliederzahl  $X$  wird dann der genaue Achsabstand  $a_i$  errechnet.

Avant de calculer le nombre de maillons et de entraxe exacte, il faut choisir l'entraxe  $a$  (mm) approximative, les nombres de dents  $z_1$  et  $z_2$ , ainsi que le pas  $p$  (mm).

$$x = \frac{2}{p} \cdot a + \frac{z_1 + z_2}{2} + \frac{\frac{(z_2 - z_1)^2}{2\pi^2}}{\frac{2}{p} \cdot a}$$

Le nombre de maillons déterminé est arrondi à un nombre entier, autant que possible pair, afin qu'aucun maillon coudé ne doit être monté (diminution de 20% de la charge de rupture). A l'aide de ce nombre de maillons  $X$ , l'entraxe  $a_i$  exacte est alors définitivement calculée.

The approximate centre of distance  $a$  (mm), the numbers of teeth  $z_1$  and  $z_2$ , as well as the Pitch  $p$  (mm) are to be chosen, before the calculation of the number of links and centre distance.

$$x = \frac{2}{p} \cdot a + \frac{z_1 + z_2}{2} + \frac{\frac{(z_2 - z_1)^2}{2\pi^2}}{\frac{2}{p} \cdot a}$$

If possible, the calculated number of links should be rounded up to even numbers, so no cranked link is required. (Breaking load is 20% less). With this number of links  $X$ , the exact centre distance  $a_i$  can be calculated.

| $z_2 - z_1$ | $\frac{(z_2 - z_1)^2}{2\pi^2}$ | $z_2 - z_1$ | $\frac{(z_2 - z_1)^2}{2\pi^2}$ | $z_2 - z_1$ | $\frac{(z_2 - z_1)^2}{2\pi^2}$ | $z_2 - z_1$ | $\frac{(z_2 - z_1)^2}{2\pi^2}$ | $\frac{p}{mm}$ | $\frac{2}{p}$ |
|-------------|--------------------------------|-------------|--------------------------------|-------------|--------------------------------|-------------|--------------------------------|----------------|---------------|
| 1           | 0.0506                         | 31          | 48.6848                        | 61          | 188.5080                       | 91          | 419.5203                       | 5.000          | 0.4000        |
| 2           | 0.2026                         | 32          | 51.8764                        | 62          | 194.7393                       | 92          | 428.7912                       | 6.000          | 0.3333        |
| 3           | 0.4559                         | 33          | 55.1693                        | 63          | 201.0718                       | 93          | 438.1634                       | 6.350          | 0.3149        |
| 4           | 0.8105                         | 34          | 58.5636                        | 64          | 207.5057                       | 94          | 447.6369                       | 8.000          | 0.2500        |
| 5           | 1.2665                         | 35          | 62.0592                        | 65          | 214.0410                       | 95          | 457.2118                       | 9.525          | 0.2099        |
| 6           | 1.8237                         | 36          | 65.6561                        | 66          | 220.6775                       | 96          | 466.8880                       | 12.700         | 0.1574        |
| 7           | 2.4823                         | 37          | 69.3543                        | 67          | 227.4153                       | 97          | 476.6655                       | 15.875         | 0.1259        |
| 8           | 3.2422                         | 38          | 73.1538                        | 68          | 234.2545                       | 98          | 486.5443                       | 19.050         | 0.1049        |
| 9           | 4.1035                         | 39          | 77.0547                        | 69          | 241.1950                       | 99          | 496.5244                       | 25.400         | 0.0787        |
| 10          | 5.0660                         | 40          | 81.0569                        | 70          | 248.2369                       | 100         | 506.6059                       | 31.750         | 0.0629        |
| 11          | 6.1299                         | 41          | 85.1604                        | 71          | 255.3800                       | 101         | 516.7886                       | 38.100         | 0.0524        |
| 12          | 7.2951                         | 42          | 89.3652                        | 72          | 262.6245                       | 102         | 527.0727                       | 44.450         | 0.0449        |
| 13          | 8.5616                         | 43          | 93.6714                        | 73          | 269.9702                       | 103         | 537.4582                       | 50.800         | 0.0393        |
| 14          | 9.9294                         | 44          | 98.0789                        | 74          | 277.4174                       | 104         | 547.9449                       | 63.500         | 0.0314        |
| 15          | 11.3986                        | 45          | 102.5876                       | 75          | 284.9658                       | 105         | 558.5330                       | 76.200         | 0.0262        |
| 16          | 12.9691                        | 46          | 107.1978                       | 76          | 292.6155                       | 106         | 569.2224                       | 5.000          | 0.4000        |
| 17          | 14.6409                        | 47          | 111.9092                       | 77          | 300.3666                       | 107         | 580.0131                       | 6.000          | 0.3333        |
| 18          | 16.4140                        | 48          | 116.7220                       | 78          | 308.2190                       | 108         | 590.9051                       | 6.350          | 0.3149        |
| 19          | 18.2884                        | 49          | 121.6360                       | 79          | 316.1727                       | 109         | 601.8984                       | 8.000          | 0.2500        |
| 20          | 20.2642                        | 50          | 126.6514                       | 80          | 324.2277                       | 110         | 612.9931                       | 9.525          | 0.2099        |
| 21          | 22.3413                        | 51          | 131.7682                       | 81          | 332.3841                       | 111         | 624.1891                       | 12.700         | 0.1574        |
| 22          | 24.5197                        | 52          | 136.9862                       | 82          | 340.6418                       | 112         | 635.4864                       | 15.875         | 0.1259        |
| 23          | 26.7994                        | 53          | 142.3056                       | 83          | 349.0008                       | 113         | 646.8850                       | 19.050         | 0.1049        |
| 24          | 29.1805                        | 54          | 147.7262                       | 84          | 357.4611                       | 114         | 658.3850                       | 25.400         | 0.0787        |
| 25          | 31.6628                        | 55          | 153.2482                       | 85          | 366.0227                       | 115         | 669.9863                       | 31.750         | 0.0629        |
| 26          | 34.2465                        | 56          | 158.8716                       | 86          | 374.6857                       | 116         | 681.6889                       | 38.100         | 0.0524        |
| 27          | 36.9315                        | 57          | 164.5962                       | 87          | 383.4500                       | 117         | 693.4928                       | 44.450         | 0.0449        |
| 28          | 39.7179                        | 58          | 170.4222                       | 88          | 392.3156                       | 118         | 705.3980                       | 50.800         | 0.0393        |
| 29          | 42.6055                        | 59          | 176.3495                       | 89          | 401.2825                       | 119         | 717.4046                       | 63.500         | 0.0314        |
| 30          | 45.5945                        | 60          | 182.3781                       | 90          | 410.3507                       | 120         | 729.5125                       | 76.200         | 0.0262        |

Achsabstand / Entraxe / Centre distance

$$a_i = \frac{p}{8} \left[ 2x - z_1 - z_2 + \sqrt{(2x - z_1 - z_2)^2 - f_3 (z_2 - z_1)^2} \right] \text{ (mm)}$$

# Berechnungsgrößen

## Grandeurs de calcul

### Parameters

Tabelle für Faktor  $f_3$  / Tableau du facteur  $f_3$  / Table for factor  $f_3$

| $\frac{X - z_1}{z_2 - z_1}$ | $f_3$  | $\frac{X - z_1}{z_2 - z_1}$ | $f_3$  | $\frac{X - z_1}{z_2 - z_1}$ | $f_3$  | $\frac{X - z_1}{z_2 - z_1}$ | $f_3$  | $\frac{X - z_1}{z_2 - z_1}$ | $f_3$  |
|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|
| 12.0                        | 0.8106 | 3.80                        | 0.8111 | 2.00                        | 0.8138 | 1.31                        | 0.8238 | 1.160                       | 0.8336 |
| 11.0                        | 0.8106 | 3.60                        | 0.8112 | 1.90                        | 0.8143 | 1.30                        | 0.8243 | 1.150                       | 0.8346 |
| 10.0                        | 0.8107 | 3.40                        | 0.8113 | 1.80                        | 0.8150 | 1.29                        | 0.8248 | 1.140                       | 0.8358 |
| 9.0                         | 0.8107 | 3.20                        | 0.8114 | 1.70                        | 0.8158 | 1.28                        | 0.8253 | 1.130                       | 0.8372 |
| 8.0                         | 0.8107 | 3.00                        | 0.8115 | 1.60                        | 0.8170 | 1.27                        | 0.8258 | 1.120                       | 0.8387 |
| 7.0                         | 0.8108 | 2.90                        | 0.8116 | 1.50                        | 0.8185 | 1.26                        | 0.8264 | 1.110                       | 0.8405 |
| 6.0                         | 0.8108 | 2.80                        | 0.8118 | 1.40                        | 0.8207 | 1.25                        | 0.8270 | 1.100                       | 0.8425 |
| 5.0                         | 0.8109 | 2.70                        | 0.8119 | 1.39                        | 0.8209 | 1.24                        | 0.8276 | 1.090                       | 0.8448 |
| 4.8                         | 0.8109 | 2.60                        | 0.8121 | 1.38                        | 0.8212 | 1.23                        | 0.8282 | 1.080                       | 0.8474 |
| 4.6                         | 0.8109 | 2.50                        | 0.8123 | 1.37                        | 0.8215 | 1.22                        | 0.8289 | 1.070                       | 0.8503 |
| 4.4                         | 0.8110 | 2.40                        | 0.8125 | 1.36                        | 0.8219 | 1.21                        | 0.8295 | 1.060                       | 0.8537 |
| 4.2                         | 0.8110 | 2.30                        | 0.8127 | 1.35                        | 0.8222 | 1.20                        | 0.8302 | 1.058                       | 0.8544 |
| 4.0                         | 0.8110 | 2.20                        | 0.8130 | 1.34                        | 0.8226 | 1.19                        | 0.8310 | 1.056                       | 0.8551 |
|                             |        | 2.10                        | 0.8134 | 1.33                        | 0.8230 | 1.18                        | 0.8318 | 1.054                       | 0.8559 |
|                             |        |                             |        | 1.32                        | 0.8234 | 1.17                        | 0.8326 | 1.052                       | 0.8567 |

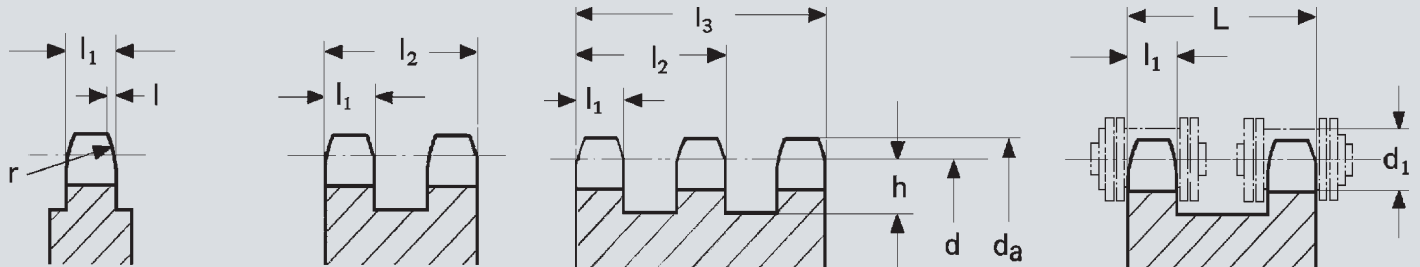
## Richtlinien zur Bestimmung des Teilkreises d Directives pour détermination du cercle primitif d Guidelines for determination of the pitch circle diameter d

Einfach / Simple / Simplex

Zweifach / Double / Duplex

Dreifach / Triple / Triplex

2×Einfachkette / 2×Chaîne simple / 2×simplex strand chain



### Europäische Bauart BS Série européenne BS European design BS

| Ketten<br>Chaines<br>Chain type | Teilung<br>Pas<br>Pitch |                      |                      |                      |         |         |         |                      |                        |
|---------------------------------|-------------------------|----------------------|----------------------|----------------------|---------|---------|---------|----------------------|------------------------|
| ISO/DIN<br>No.                  | p<br>mm                 | l <sub>1</sub><br>mm | l <sub>2</sub><br>mm | l <sub>3</sub><br>mm | l<br>mm | r<br>mm | h<br>mm | d <sub>1</sub><br>mm | L <sub>min</sub><br>mm |
| 04                              | 6.000                   | 2.6                  | —                    | —                    | 0.6     | 6       | 4.0     | 4.00                 | 12                     |
| 05B                             | 8.000                   | 2.8                  | 8.3                  | 14.0                 | 0.8     | 8       | 5.5     | 5.00                 | 14                     |
| 06B                             | 9.525                   | 5.3                  | 15.4                 | 25.6                 | 1.0     | 10      | 6.5     | 6.35                 | 21                     |
| 082                             | 12.700                  | 2.2                  | —                    | —                    | 0.4     | 13      | 7.0     | 7.75                 | 13                     |
| 081                             | 12.700                  | 3.0                  | —                    | —                    | 0.7     | 13      | 7.0     | 7.75                 | 15                     |
| 083                             | 12.700                  | 4.5                  | —                    | —                    | 0.8     | 13      | 7.0     | 7.75                 | 21                     |
| 08B                             | 12.700                  | 7.2                  | 21.0                 | 34.9                 | 1.3     | 13      | 8.0     | 8.51                 | 29                     |
| 10B                             | 15.875                  | 9.1                  | 25.5                 | 42.1                 | 1.6     | 16      | 10.0    | 10.16                | 34                     |
| 12B                             | 19.050                  | 11.1                 | 30.3                 | 49.7                 | 1.9     | 19      | 11.0    | 12.07                | 38                     |
| 16B                             | 25.400                  | 16.2                 | 47.7                 | 79.6                 | 2.5     | 25      | 15.0    | 15.88                | 58                     |
| 20B                             | 31.750                  | 18.5                 | 54.7                 | 91.2                 | 3.5     | 32      | 18.0    | 19.05                | 67                     |
| 24B                             | 38.100                  | 24.1                 | 72.3                 | 120.6                | 4.0     | 38      | 23.0    | 25.40                | 86                     |
| 28B                             | 44.450                  | 29.4                 | 88.7                 | 148.2                | 5.0     | 44      | 25.0    | 27.94                | 105                    |
| 32B                             | 50.800                  | 29.4                 | 87.6                 | 146.2                | 6.0     | 51      | 29.0    | 29.21                | 108                    |



### Amerikanische Bauart ANSI Série américaine ANSI American design ANSI

| Ketten<br>Chaines<br>Chain type | Teilung<br>Pas<br>Pitch |                      |                      |                      |         |         |         |                      |                        |
|---------------------------------|-------------------------|----------------------|----------------------|----------------------|---------|---------|---------|----------------------|------------------------|
| ISO/DIN<br>No.                  | p<br>mm                 | l <sub>1</sub><br>mm | l <sub>2</sub><br>mm | l <sub>3</sub><br>mm | l<br>mm | r<br>mm | h<br>mm | d <sub>1</sub><br>mm | L <sub>min</sub><br>mm |
| 04C(25)                         | 6.350                   | 2.9                  | —                    | —                    | 0.6     | 6       | 4.0     | 3.30                 | 13                     |
| 06C(35)                         | 9.525                   | 4.4                  | 14.4                 | 24.5                 | 0.9     | 10      | 6.5     | 5.08                 | 20                     |
| 08A(40)                         | 12.700                  | 7.2                  | 21.8                 | 35.8                 | 1.2     | 13      | 8.0     | 7.93                 | 29                     |
| 10A(50)                         | 15.875                  | 8.9                  | 26.9                 | 45.0                 | 1.5     | 16      | 11.0    | 10.16                | 34                     |
| 12A(60)                         | 19.050                  | 12.0                 | 34.6                 | 57.4                 | 1.9     | 19      | 12.0    | 11.91                | 42                     |
| 16A(80)                         | 25.400                  | 15.0                 | 44.0                 | 73.3                 | 2.5     | 25      | 16.0    | 15.88                | 56                     |
| 20A(100)                        | 31.750                  | 18.0                 | 53.4                 | 89.2                 | 3.1     | 32      | 20.0    | 19.05                | 67                     |
| 24A(120)                        | 38.100                  | 24.1                 | 69.1                 | 114.5                | 3.8     | 38      | 24.0    | 22.22                | 85                     |
| 28A(140)                        | 44.450                  | 24.1                 | 72.5                 | 121.4                | 4.5     | 44      | 28.0    | 25.40                | 92                     |
| 32A(160)                        | 50.800                  | 30.1                 | 88.0                 | 146.5                | 5.0     | 51      | 32.0    | 28.58                | 108                    |



## Richtlinien zur Bestimmung des Teilkreises d Directives pour détermination du cercle primitif d Guidelines for determination of the pitch circle diameter d

Kopfkreis  $d_a$  / Diamètre extérieur / Tip diameter  $d_a$ :  $d_a = d + 1,25 \cdot p - d_i$

**Bestimmung des Teilkreises d (mm) aus der Zähnezahl Z und der Teilung p (mm)**

**Cercle primitif d (mm) à partir du nombre de dents Z et du pas p (mm)**

**Determination of pitch circle diameter d (mm) from the number of teeth z and the pitch p (mm)**

| z  | f     | z  | f      | z  | f      | z  | f      | z  | f      | z   | f      | z   | f      | z   | f      |
|----|-------|----|--------|----|--------|----|--------|----|--------|-----|--------|-----|--------|-----|--------|
| 6  | 2.000 | 20 | 6.392  | 40 | 12.745 | 60 | 19.107 | 80 | 25.471 | 100 | 31.836 | 120 | 38.202 | 140 | 44.567 |
| 7  | 2.305 | 21 | 6.710  | 41 | 13.064 | 61 | 19.425 | 81 | 25.790 | 101 | 32.154 | 121 | 38.520 | 141 | 44.885 |
| 8  | 2.613 | 22 | 7.027  | 42 | 13.381 | 62 | 19.744 | 82 | 26.108 | 102 | 32.473 | 122 | 38.838 | 142 | 45.204 |
| 9  | 2.924 | 23 | 7.344  | 43 | 13.700 | 63 | 20.062 | 83 | 26.426 | 103 | 32.791 | 123 | 39.156 | 143 | 45.522 |
| 10 | 3.236 | 24 | 7.661  | 44 | 14.018 | 64 | 20.380 | 84 | 26.744 | 104 | 33.109 | 124 | 39.475 | 144 | 45.840 |
| 11 | 3.549 | 25 | 7.979  | 45 | 14.336 | 65 | 20.698 | 85 | 27.063 | 105 | 33.428 | 125 | 39.793 | 145 | 46.159 |
| 12 | 3.864 | 26 | 8.296  | 46 | 14.654 | 66 | 21.016 | 86 | 27.381 | 106 | 33.746 | 126 | 40.111 | 146 | 46.477 |
| 13 | 4.179 | 27 | 8.614  | 47 | 14.972 | 67 | 21.335 | 87 | 27.699 | 107 | 34.064 | 127 | 40.429 | 147 | 46.795 |
| 14 | 4.494 | 28 | 8.931  | 48 | 15.290 | 68 | 21.653 | 88 | 28.017 | 108 | 34.382 | 128 | 40.748 | 148 | 47.113 |
| 15 | 4.810 | 29 | 9.249  | 49 | 15.608 | 69 | 21.971 | 89 | 28.335 | 109 | 34.701 | 129 | 41.066 | 149 | 47.432 |
| 16 | 5.126 | 30 | 9.567  | 50 | 15.926 | 70 | 22.289 | 90 | 28.654 | 110 | 35.019 | 130 | 41.384 | 150 | 47.750 |
| 17 | 5.442 | 31 | 9.885  | 51 | 16.244 | 71 | 22.607 | 91 | 28.972 | 111 | 35.337 | 131 | 41.703 |     |        |
| 18 | 5.759 | 32 | 10.202 | 52 | 16.562 | 72 | 22.926 | 92 | 29.290 | 112 | 35.655 | 132 | 42.021 |     |        |
| 19 | 6.076 | 33 | 10.520 | 53 | 16.880 | 73 | 23.244 | 93 | 29.608 | 113 | 35.974 | 133 | 42.339 |     |        |
|    |       | 34 | 10.838 | 54 | 17.198 | 74 | 23.562 | 94 | 29.927 | 114 | 36.292 | 134 | 42.657 |     |        |
|    |       | 35 | 11.156 | 55 | 17.517 | 75 | 23.880 | 95 | 30.245 | 115 | 36.610 | 135 | 42.976 |     |        |
|    |       | 36 | 11.474 | 56 | 17.835 | 76 | 24.198 | 96 | 30.563 | 116 | 36.928 | 136 | 43.294 |     |        |
|    |       | 37 | 11.792 | 57 | 18.153 | 77 | 24.517 | 97 | 30.881 | 117 | 37.247 | 137 | 43.612 |     |        |
|    |       | 38 | 12.110 | 58 | 18.471 | 78 | 24.835 | 98 | 31.200 | 118 | 37.565 | 138 | 43.931 |     |        |
|    |       | 39 | 12.428 | 59 | 18.789 | 79 | 25.153 | 99 | 31.518 | 119 | 37.883 | 139 | 44.249 |     |        |

Beispiel:  $z = 31, p = \frac{3}{4}'' = 19.05 \text{ mm}, f = 9.885$  aus Tabelle  
Teilkreis  $d = p \cdot f = 19.05 \cdot 9.885 = 188.31 \text{ mm}$

Exemple:  $z = 31, p = \frac{3}{4}'' = 19.05 \text{ mm}, f = 9.885$  du tableau  
cercle primitif  $d = p \cdot f = 19.05 \cdot 9.885 = 188.31 \text{ mm}$

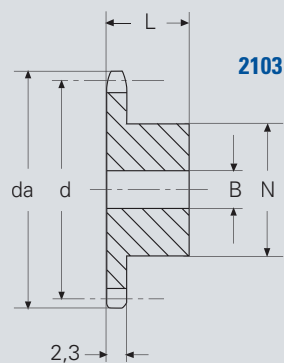
Example:  $z = 31, p = \frac{3}{4}'' = 19.05 \text{ mm}, f = 9.885$  from table  
Pitch circle diameter  $d = p \cdot f = 19.05 \cdot 9.885 = 188.31 \text{ mm}$

### Kettenräder 03-1, Stahl Roues à chaînes 03-1, acier Chain wheels 03-1, steel

Einfach, aus Stahl, passend zu Ketten  
03-1 (5×2.5 mm R Ø 3.2 mm)

Simple en acier, correspondant aux chaînes  
03-1 (5×2.5 mm R Ø 3.2 mm)

Simplex, made of steel, compatible to chain  
03-1 (5×2.5 mm R Ø 3.2 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2103                         | 11                                              |

| z * | ** Vorgebohrt / Pré alésage /<br>predrilled |       |    |   |    |
|-----|---------------------------------------------|-------|----|---|----|
|     | da                                          | d     | N  | B | L  |
| 8   | 15.2                                        | 13.06 | 7  | 4 | 10 |
| 9   | 16.8                                        | 14.62 | 8  | 5 | 10 |
| 10  | 18.3                                        | 16.18 | 9  | 5 | 10 |
| 11  | 19.9                                        | 17.75 | 11 | 6 | 10 |
| 12  | 21.5                                        | 19.32 | 12 | 6 | 10 |
| 13  | 23.0                                        | 20.89 | 14 | 6 | 10 |
| 14  | 24.6                                        | 22.47 | 15 | 6 | 10 |
| 15  | 26.2                                        | 24.04 | 16 | 6 | 10 |
| 16  | 27.8                                        | 25.63 | 18 | 8 | 13 |
| 17  | 29.4                                        | 27.20 | 18 | 8 | 13 |
| 18  | 30.9                                        | 28.79 | 18 | 8 | 13 |
| 19  | 32.5                                        | 30.38 | 18 | 8 | 13 |
| 20  | 34.1                                        | 31.96 | 18 | 8 | 13 |
| 21  | 35.7                                        | 33.54 | 20 | 8 | 13 |
| 22  | 37.3                                        | 35.13 | 20 | 8 | 13 |
| 23  | 38.9                                        | 36.72 | 20 | 8 | 13 |
| 24  | 40.5                                        | 38.30 | 20 | 8 | 13 |
| 25  | 42.0                                        | 39.89 | 20 | 8 | 13 |
| 26  | 43.6                                        | 41.48 | 25 | 8 | 15 |
| 27  | 45.2                                        | 43.07 | 25 | 8 | 15 |
| 28  | 46.8                                        | 44.65 | 25 | 8 | 15 |
| 29  | 48.4                                        | 46.25 | 25 | 8 | 15 |
| 30  | 50.0                                        | 47.83 | 25 | 8 | 15 |
| 31  | 51.6                                        | 49.42 | 30 | 8 | 15 |
| 32  | 53.3                                        | 51.01 | 30 | 8 | 15 |
| 33  | 54.8                                        | 52.60 | 30 | 8 | 15 |
| 34  | 56.3                                        | 54.19 | 30 | 8 | 15 |
| 35  | 57.9                                        | 55.78 | 30 | 8 | 15 |
| 36  | 59.5                                        | 57.37 | 30 | 8 | 15 |
| 37  | 61.1                                        | 58.96 | 30 | 8 | 15 |
| 38  | 62.7                                        | 60.54 | 30 | 8 | 15 |
| 39  | 64.3                                        | 62.13 | 30 | 8 | 15 |
| 40  | 65.9                                        | 63.73 | 30 | 8 | 15 |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

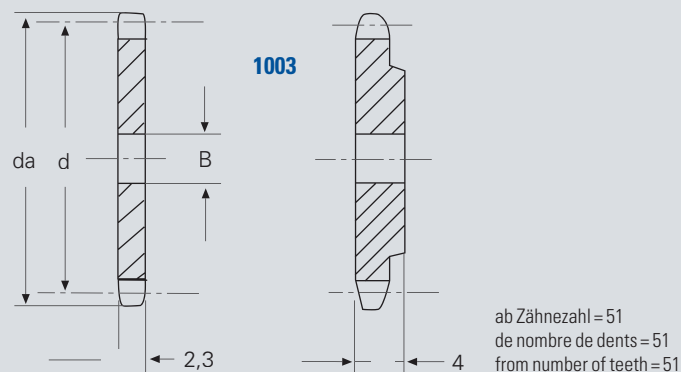
## Kettenradscheiben 03-1, Stahl Disques à chaîn 03-1, acier Chain wheel plates 03-1, steel



Einfach aus Stahl, passend zu Ketten  
03-1 (5 × 2.5 mm R Ø 3.2 mm)

Simple en acier, correspondant aux chaînes  
03-1 (5 × 2.5 mm R Ø 3.2 mm)

Simplex, made of steel, compatible to chain  
03-1 (5 × 2.5 mm R Ø 3.2 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 1003                         | 11                                              |

| ** Vorgebohrt / Pré alésage /<br>predrilled |      |       |   |
|---------------------------------------------|------|-------|---|
| z *                                         | da   | d     | B |
| 11                                          | 19.9 | 17.75 | 5 |
| 12                                          | 21.5 | 19.32 | 5 |
| 13                                          | 23.0 | 20.89 | 5 |
| 14                                          | 24.6 | 22.47 | 5 |
| 15                                          | 26.2 | 24.04 | 5 |
| 16                                          | 27.8 | 25.63 | 6 |
| 17                                          | 29.4 | 27.20 | 6 |
| 18                                          | 30.9 | 28.79 | 6 |
| 19                                          | 32.5 | 30.38 | 6 |
| 20                                          | 34.1 | 31.96 | 6 |
| 21                                          | 35.7 | 33.54 | 8 |
| 22                                          | 37.3 | 35.13 | 8 |
| 23                                          | 38.9 | 36.72 | 8 |
| 24                                          | 40.5 | 38.30 | 8 |
| 25                                          | 42.0 | 39.89 | 8 |
| 26                                          | 43.6 | 41.48 | 8 |
| 27                                          | 45.2 | 43.07 | 8 |
| 28                                          | 46.8 | 44.65 | 8 |
| 30                                          | 50.0 | 47.83 | 8 |
| 32                                          | 53.2 | 51.01 | 8 |
| 33                                          | 54.8 | 52.60 | 8 |
| 34                                          | 56.3 | 54.19 | 8 |
| 35                                          | 57.9 | 55.78 | 8 |
| 36                                          | 59.5 | 57.37 | 8 |
| 37                                          | 61.1 | 58.96 | 8 |
| 38                                          | 62.7 | 60.54 | 8 |
| 40                                          | 65.9 | 63.73 | 8 |
| 42                                          | 69.1 | 66.91 | 8 |
| 44                                          | 70.6 | 68.49 | 8 |

| ** Vorgebohrt / Pré alésage /<br>predrilled |       |        |    |
|---------------------------------------------|-------|--------|----|
| z *                                         | da    | d      | B  |
| 45                                          | 73.8  | 71.68  | 8  |
| 46                                          | 75.4  | 73.27  | 8  |
| 48                                          | 78.6  | 76.45  | 8  |
| 50                                          | 81.8  | 79.63  | 8  |
| 52                                          | 85.0  | 82.81  | 10 |
| 54                                          | 88.1  | 85.97  | 10 |
| 55                                          | 89.7  | 87.58  | 10 |
| 57                                          | 92.9  | 90.76  | 10 |
| 60                                          | 97.7  | 95.53  | 10 |
| 62                                          | 100.9 | 98.72  | 12 |
| 65                                          | 105.6 | 103.49 | 12 |
| 70                                          | 113.6 | 111.44 | 12 |
| 76                                          | 123.1 | 120.99 | 12 |
| 80                                          | 129.5 | 127.35 | 12 |
| 90                                          | 145.4 | 143.27 | 14 |
| 95                                          | 153.4 | 151.22 | 14 |
| 114                                         | 183.6 | 181.46 | 14 |

\* Zähnezahl / nombre de dents / Number of teeth

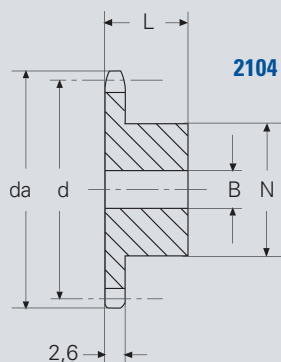
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

### Kettenräder 04-1, Stahl Roues à chaînes 04-1, acier Chain wheels 04-1, steel

Einfach, aus Stahl, passend zu Ketten  
04-1 (6×2.8 mm R Ø 4 mm)

Simple en acier, correspondant aux chaînes  
04-1 (6×2.8 mm R Ø 4 mm)

Simplex, made of steel, compatible to chain  
04-1 (6×2.8 mm R Ø 4 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2104                         | 11                                              |

| z * | ** Vorgebohrt / Pré alésage /<br>predrilled |       |      |   |    |
|-----|---------------------------------------------|-------|------|---|----|
|     | da                                          | d     | N    | B | L  |
| 8   | 17.5                                        | 15.68 | 9.8  | 5 | 10 |
| 9   | 19.5                                        | 17.54 | 11.5 | 5 | 10 |
| 10  | 21.5                                        | 19.41 | 13.0 | 6 | 10 |
| 11  | 23.5                                        | 21.29 | 14.0 | 6 | 10 |
| 12  | 25.5                                        | 23.18 | 16.0 | 6 | 10 |
| 13  | 27.5                                        | 25.07 | 18.0 | 8 | 10 |
| 14  | 29.0                                        | 26.96 | 20.0 | 8 | 10 |
| 15  | 31.0                                        | 28.86 | 20.0 | 8 | 10 |
| 16  | 33.0                                        | 30.75 | 20.0 | 8 | 13 |
| 17  | 35.0                                        | 32.65 | 20.0 | 8 | 13 |
| 18  | 37.0                                        | 34.55 | 20.0 | 8 | 13 |
| 19  | 39.0                                        | 36.45 | 20.0 | 8 | 13 |
| 20  | 40.5                                        | 38.36 | 20.0 | 8 | 13 |
| 21  | 42.5                                        | 40.26 | 25.0 | 8 | 13 |
| 22  | 44.5                                        | 42.16 | 25.0 | 8 | 13 |
| 23  | 46.5                                        | 44.06 | 25.0 | 8 | 13 |
| 24  | 48.5                                        | 45.96 | 25.0 | 8 | 13 |
| 25  | 50.0                                        | 47.87 | 25.0 | 8 | 13 |
| 26  | 52.0                                        | 49.77 | 30.0 | 8 | 15 |
| 27  | 54.0                                        | 51.68 | 30.0 | 8 | 15 |
| 28  | 56.0                                        | 53.58 | 30.0 | 8 | 15 |
| 29  | 58.0                                        | 55.49 | 30.0 | 8 | 15 |
| 30  | 60.0                                        | 57.40 | 30.0 | 8 | 15 |
| 31  | 61.5                                        | 59.31 | 30.0 | 8 | 15 |
| 32  | 63.5                                        | 61.21 | 30.0 | 8 | 15 |
| 33  | 65.5                                        | 63.12 | 30.0 | 8 | 15 |
| 34  | 67.5                                        | 65.03 | 30.0 | 8 | 15 |
| 35  | 69.5                                        | 66.93 | 30.0 | 8 | 15 |
| 36  | 71.0                                        | 68.84 | 30.0 | 8 | 15 |
| 37  | 73.0                                        | 70.75 | 30.0 | 8 | 15 |
| 38  | 75.0                                        | 72.66 | 30.0 | 8 | 15 |
| 39  | 77.0                                        | 74.57 | 30.0 | 8 | 15 |
| 40  | 79.0                                        | 76.47 | 30.0 | 8 | 15 |

\* Zähnezahl / nombre de dents / Number of teeth

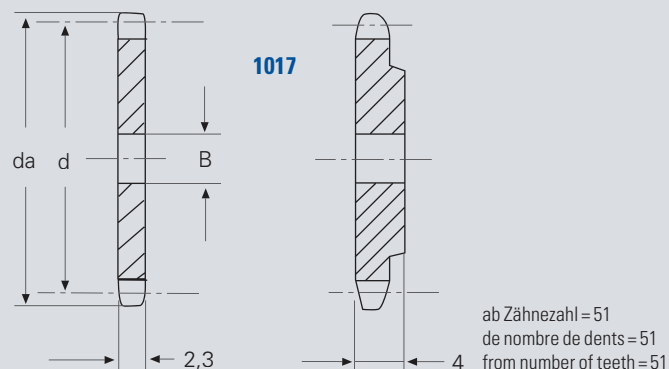
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

### Kettenradscheiben 04-1, Stahl Disques à chaîn 04-1, acier Chain wheel plates 04-1, steel

Einfach aus Stahl, passend zu Ketten  
04-1 (6 × 2.8 mm R Ø 4 mm)

Simple en acier, correspondant aux chaînes  
04-1 (6 × 2.8 mm R Ø 4 mm)

Simplex, made of steel, compatible to chain  
04-1 (6 × 2.8 mm R Ø 4 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 1017                         | 11                                              |

| ** Vorgebohrt / Pré alésage /<br>predrilled |      |       |    |
|---------------------------------------------|------|-------|----|
| z *                                         | da   | d     | B  |
| 11                                          | 23.6 | 21.30 | 6  |
| 12                                          | 25.6 | 23.18 | 6  |
| 13                                          | 27.5 | 25.07 | 8  |
| 14                                          | 29.2 | 26.96 | 8  |
| 15                                          | 31.0 | 28.86 | 8  |
| 16                                          | 33.0 | 30.76 | 8  |
| 17                                          | 35.0 | 32.65 | 8  |
| 18                                          | 36.9 | 34.55 | 8  |
| 19                                          | 38.8 | 36.45 | 8  |
| 20                                          | 40.7 | 38.35 | 8  |
| 21                                          | 43.0 | 40.26 | 8  |
| 22                                          | 44.9 | 42.16 | 8  |
| 23                                          | 46.8 | 44.06 | 8  |
| 24                                          | 48.8 | 45.97 | 8  |
| 25                                          | 50.7 | 47.87 | 8  |
| 26                                          | 52.6 | 49.78 | 8  |
| 27                                          | 54.5 | 51.68 | 8  |
| 28                                          | 56.4 | 53.59 | 8  |
| 30                                          | 60.3 | 57.40 | 8  |
| 32                                          | 64.1 | 61.21 | 8  |
| 33                                          | 66.0 | 63.12 | 8  |
| 34                                          | 67.9 | 65.03 | 8  |
| 35                                          | 69.8 | 66.94 | 8  |
| 36                                          | 71.8 | 68.84 | 8  |
| 37                                          | 73.7 | 70.75 | 8  |
| 38                                          | 75.6 | 72.66 | 8  |
| 40                                          | 79.4 | 76.47 | 8  |
| 42                                          | 83.2 | 80.29 | 10 |
| 44                                          | 86.5 | 84.11 | 10 |
| 45                                          | 89.0 | 86.01 | 10 |

| ** Vorgebohrt / Pré alésage /<br>predrilled |       |        |    |
|---------------------------------------------|-------|--------|----|
| z *                                         | da    | d      | B  |
| 46                                          | 90.5  | 87.92  | 10 |
| 48                                          | 94.7  | 91.74  | 10 |
| 50                                          | 98.5  | 95.56  | 10 |
| 52                                          | 101.5 | 99.37  | 12 |
| 54                                          | 105.5 | 103.19 | 12 |
| 55                                          | 108.1 | 105.10 | 12 |
| 57                                          | 111.9 | 108.92 | 12 |
| 60                                          | 117.7 | 114.64 | 12 |
| 62                                          | 121.0 | 118.46 | 14 |
| 65                                          | 127.2 | 124.19 | 14 |
| 70                                          | 136.8 | 133.74 | 14 |
| 76                                          | 148.2 | 145.19 | 16 |
| 80                                          | 155.9 | 152.83 | 16 |
| 90                                          | 174.5 | 171.92 | 16 |
| 95                                          | 184.6 | 181.47 | 16 |
| 114                                         | 220.8 | 217.75 | 16 |

\* Zähnezahl / nombre de dents / Number of teeth

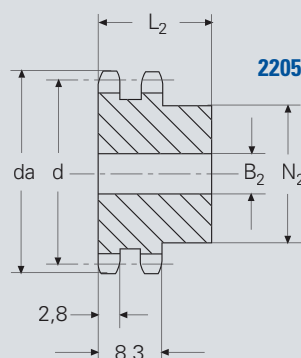
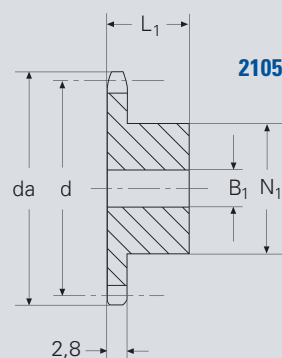
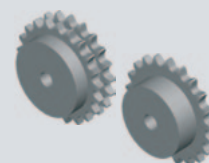
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

### Kettenräder 05B-..., Stahl Roues à chaînes 05B-..., acier Chain wheels 05B-..., steel

Ein- und zweifach, aus Stahl, passend zu Ketten  
05B-1 und 05B-2 (8 × 3 mm R Ø 5 mm)

Simple et double, en acier, correspondant  
aux chaînes 05B-1 et 05B-2 (8 × 3 mm R Ø 5 mm)

Simplex and duplex, made of steel, compatible  
to chain 05B-1 and 05B-2 (8 × 3 mm R Ø 5 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

Einfach  
Simple  
Simplex

2105

Zweifach  
Double  
Duplex

2205

Zähnezahl  
nombre de dents  
number of teeth

10

| z * | ** Vorgebohrt / Pré alésage /<br>predrilled |        |                |                | ** Vorgebohrt / Pré alésage /<br>predrilled |                |                |                |
|-----|---------------------------------------------|--------|----------------|----------------|---------------------------------------------|----------------|----------------|----------------|
|     | da                                          | d      | N <sub>1</sub> | N <sub>2</sub> | B <sub>1</sub>                              | B <sub>2</sub> | L <sub>1</sub> | L <sub>2</sub> |
| 8   | 24.0                                        | 20.90  | 13             | 12             | 6                                           | 8              | 12             | 18             |
| 9   | 26.5                                        | 23.39  | 15             | 15             | 6                                           | 8              | 12             | 18             |
| 10  | 29.0                                        | 25.89  | 17             | 17             | 8                                           | 8              | 12             | 18             |
| 11  | 31.5                                        | 28.39  | 18             | 19             | 8                                           | 10             | 13             | 18             |
| 12  | 34.0                                        | 30.91  | 20             | 21             | 8                                           | 10             | 13             | 18             |
| 13  | 36.5                                        | 33.42  | 23             | 24             | 8                                           | 10             | 13             | 18             |
| 14  | 39.0                                        | 35.95  | 25             | 26             | 8                                           | 10             | 13             | 18             |
| 15  | 41.5                                        | 38.48  | 28             | 29             | 8                                           | 10             | 13             | 18             |
| 16  | 44.0                                        | 41.01  | 30             | 32             | 8                                           | 10             | 14             | 20             |
| 17  | 46.5                                        | 43.53  | 30             | 34             | 8                                           | 10             | 14             | 20             |
| 18  | 49.5                                        | 46.07  | 30             | 37             | 8                                           | 10             | 14             | 20             |
| 19  | 52.0                                        | 48.61  | 30             | 39             | 8                                           | 10             | 14             | 20             |
| 20  | 54.5                                        | 51.14  | 30             | 40             | 8                                           | 10             | 14             | 20             |
| 21  | 57.0                                        | 53.68  | 35             | 40             | 8                                           | 10             | 14             | 20             |
| 22  | 60.0                                        | 56.21  | 35             | 40             | 8                                           | 10             | 14             | 20             |
| 23  | 62.5                                        | 58.75  | 35             | 40             | 8                                           | 10             | 14             | 20             |
| 24  | 65.0                                        | 61.29  | 35             | 40             | 8                                           | 10             | 14             | 20             |
| 25  | 67.0                                        | 63.83  | 35             | 40             | 8                                           | 10             | 14             | 20             |
| 26  | 70.0                                        | 66.37  | 40             | 50             | 10                                          | 12             | 16             | 22             |
| 27  | 72.5                                        | 68.91  | 40             | 50             | 10                                          | 12             | 16             | 22             |
| 28  | 75.0                                        | 71.45  | 40             | 50             | 10                                          | 12             | 16             | 22             |
| 29  | 77.5                                        | 73.99  | 40             | 50             | 10                                          | 12             | 16             | 22             |
| 30  | 80.0                                        | 76.53  | 40             | 50             | 10                                          | 12             | 16             | 22             |
| 31  | 83.0                                        | 79.08  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 32  | 85.5                                        | 81.61  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 33  | 88.0                                        | 84.16  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 34  | 90.5                                        | 86.70  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 35  | 93.0                                        | 89.25  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 36  | 95.5                                        | 91.79  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 37  | 98.0                                        | 94.33  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 38  | 100.5                                       | 96.88  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 39  | 103.0                                       | 99.42  | 40             | 60             | 10                                          | 12             | 16             | 22             |
| 40  | 105.5                                       | 101.97 | 40             | 60             | 10                                          | 12             | 16             | 22             |

\* Zähnezahl / nombre de dents / Number of teeth

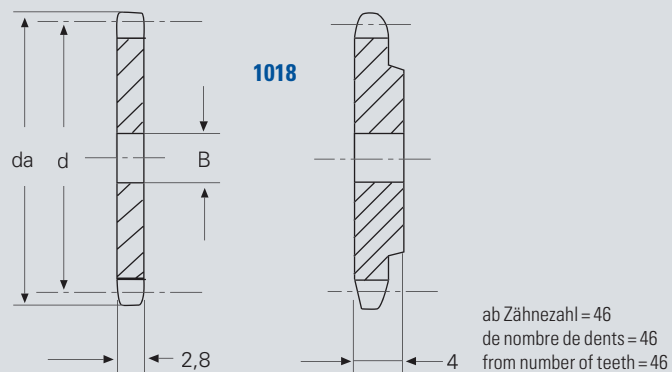
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

### Kettenradscheiben 05B-1, Stahl Disques à chaîn 05B-1, acier Chain wheel plates 05B-1, steel

Einfach, aus Stahl, passend zu Ketten  
05B-1 (8 × 3 mm R Ø 5 mm)

Simple, en acier, correspondant aux chaînes  
05B-1 (8 × 3 mm R Ø 5 mm)

Simplex, made of steel, compatible  
to chain 05B-1 (8 × 3 mm R Ø 5 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 1018                         | 11                                              |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 11                                          | 31  | 28.39  | 8  |
| 12                                          | 34  | 30.91  | 8  |
| 13                                          | 36  | 33.43  | 8  |
| 14                                          | 39  | 35.95  | 8  |
| 15                                          | 42  | 38.48  | 8  |
| 16                                          | 44  | 41.01  | 8  |
| 17                                          | 47  | 43.53  | 8  |
| 18                                          | 49  | 46.07  | 8  |
| 19                                          | 52  | 48.61  | 8  |
| 20                                          | 55  | 51.14  | 8  |
| 21                                          | 57  | 53.68  | 8  |
| 22                                          | 60  | 56.21  | 8  |
| 23                                          | 62  | 58.75  | 8  |
| 24                                          | 65  | 61.29  | 8  |
| 25                                          | 67  | 63.83  | 8  |
| 26                                          | 70  | 66.37  | 10 |
| 27                                          | 72  | 68.91  | 10 |
| 28                                          | 75  | 71.45  | 10 |
| 29                                          | 77  | 73.99  | 10 |
| 30                                          | 80  | 76.53  | 10 |
| 31                                          | 82  | 79.08  | 10 |
| 32                                          | 86  | 81.61  | 10 |
| 33                                          | 88  | 84.16  | 10 |
| 34                                          | 90  | 86.70  | 10 |
| 35                                          | 93  | 89.25  | 10 |
| 36                                          | 95  | 91.79  | 10 |
| 37                                          | 98  | 94.33  | 10 |
| 38                                          | 101 | 96.88  | 10 |
| 39                                          | 103 | 99.42  | 10 |
| 40                                          | 106 | 101.97 | 10 |
| 41                                          | 108 | 104.51 | 12 |
| 42                                          | 111 | 107.05 | 12 |
| 44                                          | 116 | 112.14 | 12 |
| 45                                          | 118 | 114.68 | 12 |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 46                                          | 121 | 117.23 | 12 |
| 48                                          | 126 | 122.32 | 12 |
| 50                                          | 131 | 127.41 | 12 |
| 52                                          | 136 | 132.49 | 14 |
| 54                                          | 141 | 137.59 | 14 |
| 55                                          | 144 | 140.13 | 14 |
| 57                                          | 149 | 145.22 | 14 |
| 60                                          | 157 | 152.86 | 14 |
| 62                                          | 161 | 157.95 | 16 |
| 65                                          | 169 | 165.59 | 16 |
| 70                                          | 182 | 178.32 | 16 |
| 76                                          | 197 | 193.59 | 20 |
| 80                                          | 208 | 203.77 | 20 |
| 90                                          | 233 | 229.23 | 20 |
| 95                                          | 246 | 241.96 | 20 |
| 114                                         | 294 | 290.34 | 20 |

\* Zähnezahl / nombre de dents / Number of teeth

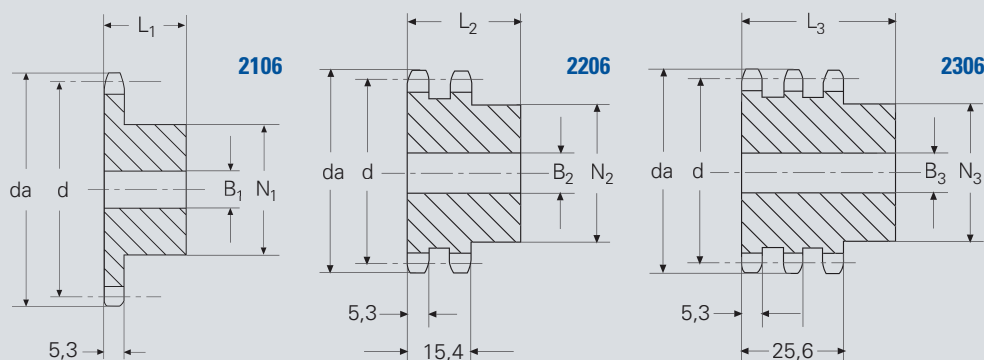
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

## Kettenräder 06B-..., Stahl Roues à chaînes 06B-..., acier Chain wheels 06B-..., steel

Ein-, zwei- und dreifach, aus Stahl,  
passend zu Ketten 06B-1, 06B-2 und 06B-3  
( $\frac{3}{8} \times \frac{7}{32}$  " R Ø 6.35 mm)

Simple, double et triple, en acier,  
correspondant aux chaînes 06B-1, 06B-2 et 06B-3  
( $\frac{3}{8} \times \frac{7}{32}$  " R Ø 6.35 mm)

Simplex, duplex and triplex, made of steel,  
compatible to chain 06B-1, 06B-2 and 06B-3  
( $\frac{3}{8} \times \frac{7}{32}$  " R Ø 6.35 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                              |                               |                                                 |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2106                         | 2206                         | 2306                          | 10                                              |

| z * | da    | d      | N <sub>1</sub> | N <sub>2</sub><br>N <sub>3</sub> | ** Vorgebohrt / Pré alésage /<br>predrilled | B <sub>1</sub> | B <sub>2</sub> | B <sub>3</sub> | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> |
|-----|-------|--------|----------------|----------------------------------|---------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 8   | 28.0  | 24.89  | 15             | —                                | —                                           | 6              | —              | —              | 22             | —              | —              |
| 9   | 31.0  | 27.85  | 18             | —                                | —                                           | 8              | —              | —              | 22             | —              | —              |
| 10  | 34.0  | 30.82  | 20             | 20                               | —                                           | 8              | 8              | —              | 22             | 22             | —              |
| 11  | 37.0  | 33.80  | 22             | 22                               | —                                           | 8              | 10             | —              | 25             | 25             | —              |
| 12  | 40.0  | 36.80  | 25             | 25                               | —                                           | 8              | 10             | 10             | 25             | 25             | 35             |
| 13  | 43.0  | 39.79  | 28             | 28                               | —                                           | 10             | 10             | 10             | 25             | 25             | 35             |
| 14  | 46.0  | 42.80  | 31             | 31                               | —                                           | 10             | 10             | —              | 25             | 25             | —              |
| 15  | 49.0  | 45.81  | 34             | 34                               | —                                           | 10             | 10             | 12             | 25             | 25             | 35             |
| 16  | 52.0  | 48.82  | 37             | 37                               | —                                           | 10             | 12             | —              | 28             | 30             | —              |
| 17  | 55.5  | 51.83  | 40             | 40                               | —                                           | 10             | 12             | 12             | 28             | 30             | 35             |
| 18  | 58.5  | 54.85  | 43             | 43                               | —                                           | 10             | 12             | —              | 28             | 30             | —              |
| 19  | 61.5  | 57.87  | 45             | 46                               | —                                           | 10             | 12             | 12             | 28             | 30             | 35             |
| 20  | 65.0  | 60.89  | 46             | 49                               | —                                           | 10             | 12             | —              | 28             | 30             | —              |
| 21  | 68.0  | 63.91  | 48             | 52                               | —                                           | 12             | 12             | 14             | 28             | 30             | 40             |
| 22  | 71.0  | 66.93  | 50             | 55                               | —                                           | 12             | 12             | —              | 28             | 30             | —              |
| 23  | 74.0  | 69.95  | 52             | 58                               | —                                           | 12             | 12             | 14             | 28             | 30             | 40             |
| 24  | 77.0  | 72.97  | 54             | 61                               | —                                           | 12             | 12             | 14             | 28             | 30             | 40             |
| 25  | 80.0  | 76.00  | 57             | 64                               | —                                           | 12             | 12             | 14             | 28             | 30             | 40             |
| 26  | 83.0  | 79.02  | 60             | —                                | —                                           | 12             | —              | —              | 28             | —              | —              |
| 27  | 86.0  | 82.05  | 60             | 70                               | —                                           | 12             | 12             | —              | 28             | 30             | —              |
| 28  | 89.0  | 85.07  | 60             | —                                | —                                           | 12             | —              | —              | 28             | —              | —              |
| 29  | 92.5  | 88.09  | 60             | —                                | —                                           | 12             | —              | —              | 28             | —              | —              |
| 30  | 95.5  | 91.12  | 60             | 79                               | —                                           | 12             | 12             | 14             | 30             | 30             | 40             |
| 31  | 98.5  | 94.15  | 65             | —                                | —                                           | 14             | —              | —              | 30             | —              | —              |
| 32  | 101.5 | 97.17  | 65             | —                                | —                                           | 14             | —              | —              | 30             | —              | —              |
| 33  | 104.5 | 100.20 | 65             | —                                | —                                           | 14             | —              | —              | 30             | —              | —              |
| 34  | 107.5 | 103.23 | 65             | —                                | —                                           | 14             | —              | —              | 30             | —              | —              |
| 35  | 110.5 | 106.26 | 65             | —                                | —                                           | 14             | —              | —              | 30             | —              | —              |
| 36  | 113.5 | 109.29 | 70             | —                                | —                                           | 16             | —              | —              | 30             | —              | —              |
| 37  | 116.5 | 112.32 | 70             | —                                | —                                           | 16             | —              | —              | 30             | —              | —              |
| 38  | 119.5 | 115.35 | 70             | —                                | —                                           | 16             | —              | —              | 30             | —              | —              |
| 39  | 122.5 | 118.37 | 70             | —                                | —                                           | 16             | —              | —              | 30             | —              | —              |
| 40  | 125.5 | 121.40 | 70             | —                                | —                                           | 16             | —              | —              | 30             | —              | —              |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

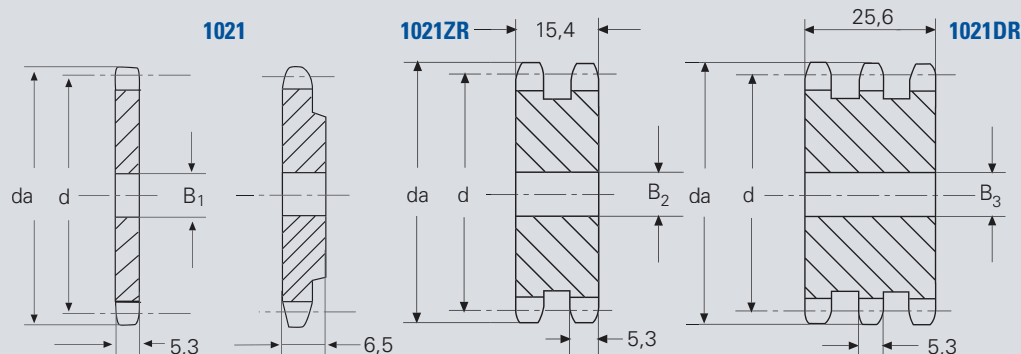
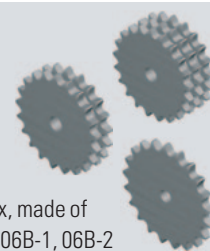
— = kein Lagerrad / pas standard / non standard

## Kettenradscheiben 06B-..., Stahl Disques à chaîne 06B-..., acier Chain wheel plates 06B-..., steel

Ein-, zwei- und dreifach, aus Stahl,  
passend zu Ketten 06B-1, 06B-2 und 06B-3  
( $\frac{3}{8}'' \times \frac{7}{32}''$  RØ 6.35 mm)

Simple, double et triple, en acier,  
correspondant aux chaînes 06B-1, 06B-2 et 06B-3  
( $\frac{3}{8}'' \times \frac{7}{32}''$  RØ 6.35 mm)

Simplex, duplex and triplex, made of  
steel, compatible to chain 06B-1, 06B-2  
and 06B-3 ( $\frac{3}{8}'' \times \frac{7}{32}''$  RØ 6.35 mm)



ab Zähnezahl = 100  
de nombre de dents = 100  
from number of teeth = 100

Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                              |                               |                                                 |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 1021                         | 1021ZR                       | 1021DR                        | 10                                              |

| z * | da    | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-------|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 10  | 34.0  | 30.82  | 7                                         | —                                         | —                                         |
| 11  | 37.0  | 33.80  | 8                                         | 10                                        | 10                                        |
| 12  | 40.0  | 36.80  | 8                                         | 10                                        | 10                                        |
| 13  | 43.0  | 39.79  | 8                                         | 10                                        | —                                         |
| 14  | 47.0  | 42.80  | 8                                         | 10                                        | —                                         |
| 15  | 50.0  | 45.81  | 8                                         | 10                                        | 12                                        |
| 16  | 53.0  | 48.82  | 10                                        | 12                                        | —                                         |
| 17  | 56.0  | 51.83  | 10                                        | 12                                        | 12                                        |
| 18  | 59.0  | 54.85  | 10                                        | 12                                        | 12                                        |
| 19  | 62.0  | 57.87  | 10                                        | 12                                        | 12                                        |
| 20  | 65.0  | 60.89  | 10                                        | 12                                        | 12                                        |
| 21  | 68.0  | 63.91  | 10                                        | 12                                        | 14                                        |
| 22  | 71.0  | 66.93  | 10                                        | 12                                        | 14                                        |
| 23  | 74.0  | 69.95  | 10                                        | 12                                        | 14                                        |
| 24  | 77.0  | 72.97  | 10                                        | 12                                        | 14                                        |
| 25  | 80.0  | 76.00  | 10                                        | 12                                        | 14                                        |
| 26  | 83.0  | 79.02  | 10                                        | 12                                        | —                                         |
| 27  | 86.0  | 82.05  | 10                                        | 12                                        | 14                                        |
| 28  | 89.0  | 85.07  | 10                                        | 12                                        | 14                                        |
| 29  | 92.0  | 88.10  | 10                                        | —                                         | —                                         |
| 30  | 95.5  | 91.12  | 10                                        | 12                                        | 14                                        |
| 31  | 99.0  | 94.15  | 12                                        | —                                         | —                                         |
| 32  | 102.0 | 97.18  | 12                                        | 14                                        | —                                         |
| 33  | 105.0 | 100.20 | 12                                        | —                                         | —                                         |
| 34  | 108.0 | 103.23 | 12                                        | —                                         | —                                         |
| 35  | 111.0 | 106.26 | 12                                        | 14                                        | 16                                        |
| 36  | 114.0 | 109.29 | 12                                        | 14                                        | —                                         |
| 37  | 117.0 | 112.32 | 12                                        | —                                         | —                                         |
| 38  | 120.0 | 115.34 | 12                                        | 14                                        | 16                                        |
| 39  | 123.0 | 118.37 | 12                                        | —                                         | —                                         |

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 40  | 126 | 121.40 | 12                                        | 14                                        | 16                                        |
| 41  | 128 | 124.43 | 16                                        | —                                         | —                                         |
| 42  | 132 | 127.46 | 16                                        | —                                         | —                                         |
| 43  | 134 | 130.49 | 16                                        | —                                         | —                                         |
| 44  | 137 | 133.52 | 16                                        | —                                         | —                                         |
| 45  | 141 | 136.55 | 16                                        | 16                                        | 16                                        |
| 46  | 144 | 139.58 | 16                                        | —                                         | —                                         |
| 47  | 147 | 142.61 | 16                                        | —                                         | —                                         |
| 48  | 150 | 145.64 | 16                                        | 16                                        | —                                         |
| 49  | 153 | 148.66 | 16                                        | —                                         | —                                         |
| 50  | 156 | 151.70 | 16                                        | 16                                        | 16                                        |
| 52  | 163 | 157.75 | 16                                        | —                                         | —                                         |
| 54  | 168 | 163.82 | 16                                        | 16                                        | —                                         |
| 55  | 171 | 166.85 | 16                                        | 16                                        | —                                         |
| 57  | 177 | 172.91 | 16                                        | 16                                        | 20                                        |
| 58  | 180 | 175.94 | 16                                        | —                                         | —                                         |
| 60  | 186 | 182.00 | 16                                        | 16                                        | 20                                        |
| 62  | 193 | 188.06 | 20                                        | —                                         | —                                         |
| 64  | 199 | 194.12 | 20                                        | —                                         | —                                         |
| 65  | 202 | 197.15 | 20                                        | —                                         | —                                         |
| 70  | 217 | 212.31 | 20                                        | 20                                        | —                                         |
| 72  | 223 | 218.37 | 20                                        | —                                         | —                                         |
| 76  | 235 | 230.49 | 20                                        | 20                                        | 25                                        |
| 80  | 248 | 242.61 | 20                                        | 20                                        | —                                         |
| 85  | 263 | 257.77 | 25                                        | —                                         | —                                         |
| 90  | 278 | 272.93 | 20                                        | —                                         | —                                         |
| 95  | 293 | 288.08 | 20                                        | 20                                        | —                                         |
| 100 | 308 | 303.25 | 20                                        | —                                         | —                                         |
| 114 | 351 | 345.68 | 20                                        | —                                         | —                                         |
| 150 | 460 | 454.82 | 25                                        | —                                         | —                                         |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

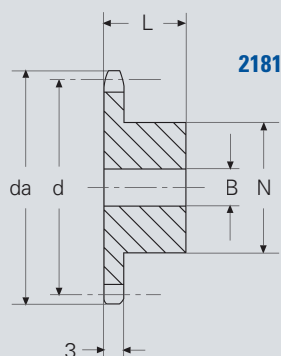
— = kein Lagerrad / pas standard / non standard

### Kettenräder 081, Stahl Roues à chaînes 081, acier Chain wheels 081, steel

Einfach, aus Stahl, passend zu Ketten  
081 ( $1\frac{1}{2}" \times 1\frac{1}{8}" R\varnothing 7.75 \text{ mm}$ )

Simple, en acier, correspondant aux  
chaînes 081 ( $1\frac{1}{2}" \times 1\frac{1}{8}" R\varnothing 7.75 \text{ mm}$ )

Simplex, made of steel, compatible to chain  
081 ( $1\frac{1}{2}" \times 1\frac{1}{8}" R\varnothing 7.75 \text{ mm}$ )



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2181                         | 11                                              |

| z * | ** Vorgebohrt / Pré alésage /<br>predrilled |        |    |    |    |
|-----|---------------------------------------------|--------|----|----|----|
|     | da                                          | d      | N  | B  | L  |
| 8   | 38.0                                        | 33.18  | 21 | 8  | 14 |
| 9   | 42.0                                        | 37.13  | 25 | 8  | 14 |
| 10  | 46.0                                        | 41.10  | 28 | 8  | 14 |
| 11  | 50.0                                        | 45.07  | 31 | 8  | 16 |
| 12  | 54.0                                        | 49.07  | 35 | 8  | 16 |
| 13  | 58.0                                        | 53.06  | 39 | 8  | 16 |
| 14  | 62.0                                        | 57.07  | 43 | 8  | 16 |
| 15  | 66.0                                        | 61.09  | 47 | 8  | 16 |
| 16  | 70.0                                        | 65.10  | 50 | 10 | 18 |
| 17  | 74.0                                        | 69.11  | 50 | 10 | 18 |
| 18  | 78.0                                        | 73.14  | 50 | 10 | 18 |
| 19  | 82.0                                        | 77.16  | 50 | 10 | 18 |
| 20  | 86.0                                        | 81.19  | 50 | 10 | 18 |
| 21  | 90.5                                        | 85.22  | 60 | 12 | 20 |
| 22  | 94.5                                        | 89.24  | 60 | 12 | 20 |
| 23  | 98.5                                        | 93.27  | 60 | 12 | 20 |
| 24  | 102.5                                       | 97.29  | 60 | 12 | 20 |
| 25  | 107.0                                       | 101.33 | 60 | 12 | 20 |
| 26  | 111.0                                       | 105.36 | 70 | 16 | 20 |
| 27  | 115.0                                       | 109.40 | 70 | 16 | 20 |
| 28  | 119.0                                       | 113.42 | 70 | 16 | 20 |
| 29  | 123.0                                       | 117.46 | 70 | 16 | 20 |
| 30  | 127.0                                       | 121.50 | 70 | 16 | 20 |
| 31  | 131.0                                       | 125.54 | 70 | 16 | 20 |
| 32  | 135.0                                       | 129.56 | 70 | 16 | 20 |
| 33  | 139.0                                       | 133.60 | 70 | 16 | 20 |
| 34  | 143.0                                       | 137.64 | 70 | 16 | 20 |
| 35  | 147.0                                       | 141.68 | 70 | 16 | 20 |
| 36  | 151.0                                       | 145.72 | 70 | 16 | 25 |
| 37  | 155.0                                       | 149.76 | 70 | 16 | 25 |
| 38  | 159.0                                       | 153.80 | 70 | 16 | 25 |
| 39  | 163.5                                       | 157.83 | 70 | 16 | 25 |
| 40  | 167.5                                       | 161.87 | 70 | 16 | 25 |

\* Zähnezahl / nombre de dents / Number of teeth

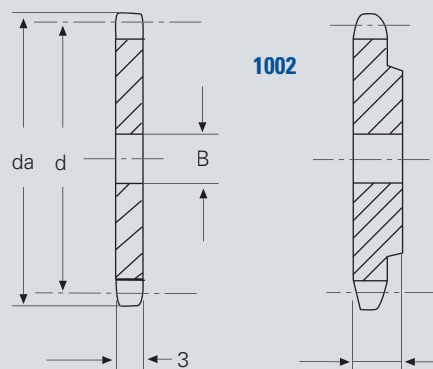
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

### Kettenradscheiben 081, Stahl Disques à chaîn 081, acier Chain wheel plates 081, steel

Einfach, aus Stahl, passend zu Ketten  
081 ( $1\frac{1}{2}$ "  $\times$   $1\frac{1}{8}$ " R  $\varnothing$  7.75 mm)

Simple, en acier, correspondant aux  
chaînes 081 ( $1\frac{1}{2}$ "  $\times$   $1\frac{1}{8}$ " R  $\varnothing$  7.75 mm)

Simplex, made of steel, compatible to chain  
081 ( $1\frac{1}{2}$ "  $\times$   $1\frac{1}{8}$ " R  $\varnothing$  7.75 mm)



4 ab Zähnezahl = 30 / de nombre de dents = 30 / from number of teeth = 30  
6 ab Zähnezahl = 90 / de nombre de dents = 90 / from number of teeth = 90

Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 1002                         | 11                                              |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 10                                          | 46  | 41.10  | 8  |
| 11                                          | 49  | 45.07  | 8  |
| 12                                          | 54  | 49.07  | 8  |
| 13                                          | 58  | 53.06  | 8  |
| 14                                          | 62  | 57.07  | 8  |
| 15                                          | 66  | 61.09  | 8  |
| 16                                          | 70  | 65.10  | 10 |
| 17                                          | 74  | 69.12  | 10 |
| 18                                          | 78  | 73.14  | 10 |
| 19                                          | 82  | 77.16  | 10 |
| 20                                          | 86  | 81.19  | 10 |
| 21                                          | 90  | 85.21  | 10 |
| 22                                          | 95  | 89.24  | 10 |
| 23                                          | 99  | 93.27  | 10 |
| 24                                          | 103 | 97.29  | 10 |
| 25                                          | 107 | 101.33 | 10 |
| 26                                          | 111 | 105.36 | 12 |
| 27                                          | 115 | 109.40 | 12 |
| 28                                          | 119 | 113.42 | 12 |
| 29                                          | 123 | 117.46 | 12 |
| 30                                          | 127 | 121.50 | 12 |
| 32                                          | 135 | 129.56 | 12 |
| 33                                          | 139 | 133.60 | 12 |
| 34                                          | 143 | 137.64 | 12 |
| 35                                          | 147 | 141.68 | 12 |
| 36                                          | 151 | 145.72 | 16 |
| 37                                          | 155 | 149.76 | 16 |
| 38                                          | 159 | 153.80 | 16 |
| 39                                          | 164 | 157.83 | 16 |
| 40                                          | 168 | 161.87 | 16 |
| 42                                          | 176 | 169.95 | 16 |
| 44                                          | 184 | 178.02 | 16 |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 45                                          | 188 | 182.06 | 16 |
| 46                                          | 192 | 186.10 | 20 |
| 48                                          | 200 | 194.18 | 20 |
| 50                                          | 208 | 202.26 | 20 |
| 52                                          | 216 | 210.34 | 20 |
| 54                                          | 224 | 218.42 | 20 |
| 57                                          | 236 | 230.54 | 20 |
| 60                                          | 249 | 242.66 | 20 |
| 65                                          | 268 | 262.87 | 20 |
| 70                                          | 289 | 283.07 | 25 |
| 76                                          | 313 | 307.32 | 25 |
| 80                                          | 329 | 323.48 | 25 |
| 90                                          | 369 | 363.90 | 25 |
| 95                                          | 389 | 384.11 | 25 |

\* Zähnezahl / nombre de dents / Number of teeth

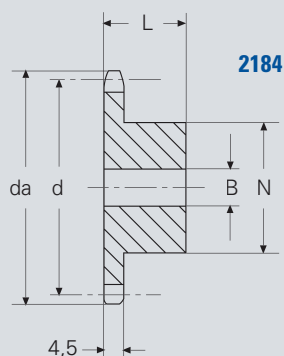
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

### Kettenräder 083/084, Stahl Roues à chaînes 083/084, acier Chain wheels 083/084, steel

Einfach, aus Stahl, passend zu Ketten  
083 und 084 ( $\frac{1}{2}'' \times \frac{3}{16}''$  R  $\varnothing 7.75$  mm)

Simple, en acier, correspondant aux chaînes  
083 et 084 ( $\frac{1}{2}'' \times \frac{3}{16}''$  R  $\varnothing 7.75$  mm)

Simplex, made of steel, compatible to chain  
083 and 084 ( $\frac{1}{2}'' \times \frac{3}{16}''$  R  $\varnothing 7.75$  mm)



#### Bestellbeispiel Exemple de commande ordering example

| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
|------------------------------|-------------------------------------------------|
| 2184                         | 11                                              |

| z * | ** Vorgebohrt / Pré alésage /<br>predrilled |        |    |    |    |
|-----|---------------------------------------------|--------|----|----|----|
|     | da                                          | d      | N  | B  | L  |
| 8   | 38.0                                        | 33.18  | 21 | 8  | 14 |
| 9   | 42.0                                        | 37.13  | 25 | 8  | 14 |
| 10  | 46.0                                        | 41.10  | 28 | 8  | 14 |
| 11  | 50.0                                        | 45.07  | 31 | 8  | 16 |
| 12  | 54.0                                        | 49.07  | 35 | 8  | 16 |
| 13  | 58.0                                        | 53.06  | 39 | 8  | 16 |
| 14  | 62.0                                        | 57.07  | 43 | 8  | 16 |
| 15  | 66.0                                        | 61.09  | 47 | 8  | 16 |
| 16  | 70.0                                        | 65.10  | 50 | 10 | 18 |
| 17  | 74.0                                        | 69.11  | 50 | 10 | 18 |
| 18  | 78.0                                        | 73.14  | 50 | 10 | 18 |
| 19  | 82.0                                        | 77.16  | 50 | 10 | 18 |
| 20  | 86.0                                        | 81.19  | 50 | 10 | 18 |
| 21  | 90.5                                        | 85.22  | 60 | 12 | 20 |
| 22  | 94.5                                        | 89.24  | 60 | 12 | 20 |
| 23  | 98.5                                        | 93.27  | 60 | 12 | 20 |
| 24  | 102.5                                       | 97.29  | 60 | 12 | 20 |
| 25  | 107.0                                       | 101.33 | 60 | 12 | 20 |
| 26  | 111.0                                       | 105.36 | 70 | 16 | 20 |
| 27  | 115.0                                       | 109.40 | 70 | 16 | 20 |
| 28  | 119.0                                       | 113.42 | 70 | 16 | 20 |
| 29  | 123.0                                       | 117.46 | 70 | 16 | 20 |
| 30  | 127.0                                       | 121.50 | 70 | 16 | 20 |
| 31  | 131.0                                       | 125.54 | 70 | 16 | 20 |
| 32  | 135.0                                       | 129.56 | 70 | 16 | 20 |
| 33  | 139.0                                       | 133.60 | 70 | 16 | 20 |
| 34  | 143.0                                       | 137.64 | 70 | 16 | 20 |
| 35  | 147.0                                       | 141.68 | 70 | 16 | 20 |
| 36  | 151.0                                       | 145.72 | 70 | 16 | 25 |
| 37  | 155.0                                       | 149.76 | 70 | 16 | 25 |
| 38  | 159.0                                       | 153.80 | 70 | 16 | 25 |
| 39  | 163.5                                       | 157.83 | 70 | 16 | 25 |
| 40  | 167.5                                       | 161.87 | 70 | 16 | 25 |

\* Zähnezahl / nombre de dents / Number of teeth

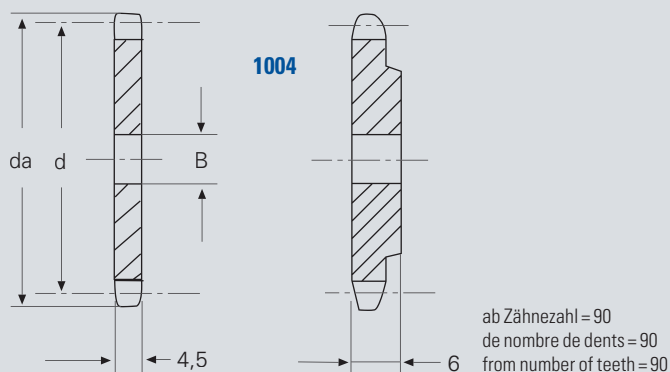
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

### Kettenradscheiben 083/084, Stahl Disques à chaîn 083/084, acier Chain wheel plates 083/084, steel

Einfach, aus Stahl, passend zu Ketten  
083 und 084 ( $\frac{1}{2} \times \frac{3}{16}$ " R Ø 7.75 mm)

Simple, en acier, correspondant aux chaînes  
083 et 084 ( $\frac{1}{2} \times \frac{3}{16}$ " R Ø 7.75 mm)

Simplex, made of steel, compatible to chain  
083 and 084 ( $\frac{1}{2} \times \frac{3}{16}$ " R Ø 7.75 mm)



#### Bestellbeispiel Exemple de commande ordering example

| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
|------------------------------|-------------------------------------------------|
| 1004                         | 11                                              |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 10                                          | 46  | 41.10  | 8  |
| 11                                          | 49  | 45.07  | 8  |
| 12                                          | 54  | 49.07  | 8  |
| 13                                          | 58  | 53.06  | 8  |
| 14                                          | 62  | 57.07  | 8  |
| 15                                          | 66  | 61.09  | 8  |
| 16                                          | 70  | 65.10  | 10 |
| 17                                          | 74  | 69.11  | 10 |
| 18                                          | 78  | 73.14  | 10 |
| 19                                          | 82  | 77.16  | 10 |
| 20                                          | 86  | 81.19  | 10 |
| 21                                          | 91  | 85.22  | 10 |
| 22                                          | 95  | 89.24  | 10 |
| 23                                          | 99  | 93.27  | 10 |
| 24                                          | 103 | 97.29  | 10 |
| 25                                          | 107 | 101.33 | 10 |
| 26                                          | 111 | 105.36 | 12 |
| 27                                          | 115 | 109.40 | 12 |
| 28                                          | 119 | 113.42 | 12 |
| 29                                          | 123 | 117.46 | 12 |
| 30                                          | 127 | 121.50 | 12 |
| 31                                          | 131 | 125.54 | 12 |
| 32                                          | 135 | 129.56 | 12 |
| 33                                          | 139 | 133.60 | 12 |
| 34                                          | 143 | 137.64 | 12 |
| 35                                          | 147 | 141.68 | 12 |
| 36                                          | 151 | 145.72 | 16 |
| 37                                          | 155 | 149.76 | 16 |
| 38                                          | 159 | 153.80 | 16 |
| 40                                          | 168 | 161.87 | 16 |
| 41                                          | 171 | 165.91 | 16 |
| 42                                          | 176 | 169.95 | 16 |
| 43                                          | 179 | 173.99 | 16 |
| 44                                          | 184 | 178.03 | 16 |
| 45                                          | 188 | 182.07 | 16 |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 46                                          | 192 | 186.10 | 20 |
| 47                                          | 196 | 190.14 | 20 |
| 48                                          | 200 | 194.18 | 20 |
| 49                                          | 203 | 198.22 | 20 |
| 50                                          | 208 | 202.26 | 20 |
| 52                                          | 216 | 210.34 | 20 |
| 54                                          | 224 | 218.43 | 20 |
| 55                                          | 228 | 222.46 | 20 |
| 57                                          | 236 | 230.54 | 20 |
| 60                                          | 249 | 242.66 | 20 |
| 65                                          | 269 | 262.86 | 20 |
| 70                                          | 289 | 283.07 | 25 |
| 72                                          | 297 | 291.16 | 25 |
| 76                                          | 313 | 307.33 | 25 |
| 80                                          | 329 | 323.48 | 25 |
| 90                                          | 369 | 363.90 | 25 |
| 95                                          | 389 | 384.11 | 25 |

\* Zähnezahl / nombre de dents / Number of teeth

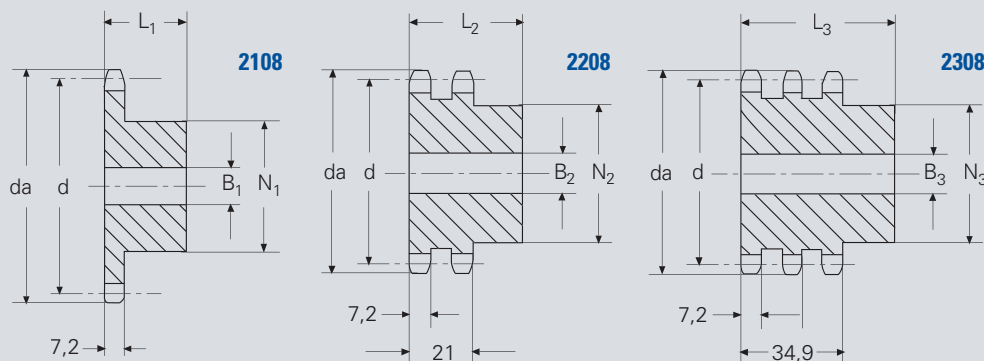
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

## Kettenräder 08B-..., Stahl Roues à chaînes 08B-..., acier Chain wheels 08B-..., steel

Ein-, zwei- und dreifach, aus Stahl, passend zu  
Ketten 08B-1, 08B-2 und 08B-3  
( $\frac{1}{2}'' \times \frac{5}{16}''$  RØ 8.51 mm)

Simple, double et triple, en acier, correspondant  
aux chaînes 08B-1, 08B-2 et 08B-3  
( $\frac{1}{2}'' \times \frac{5}{16}''$  RØ 8.51 mm)

Simplex, duplex and triplex, made of steel,  
compatible to chain 08B-1, 08B-2 and 08B-3  
( $\frac{1}{2}'' \times \frac{5}{16}''$  RØ 8.51 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                              |                               |                                                 |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2108                         | 2208                         | 2308                          | 10                                              |

| z * | da    | d      | N <sub>1</sub> | N <sub>2</sub><br>N <sub>3</sub> | B <sub>1</sub> | B <sub>2</sub> | B <sub>3</sub> | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> |
|-----|-------|--------|----------------|----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 8   | 38.0  | 33.18  | 20             | —                                | 10             | —              | —              | 25             | —              | —              |
| 9   | 42.0  | 37.13  | 24             | —                                | 10             | —              | —              | 25             | —              | —              |
| 10  | 46.0  | 41.10  | 26             | 28                               | 10             | 10             | —              | 25             | 32             | —              |
| 11  | 50.0  | 45.07  | 29             | 32                               | 10             | 12             | 14             | 25             | 35             | 50             |
| 12  | 54.0  | 49.07  | 33             | 35                               | 10             | 12             | 14             | 28             | 35             | 50             |
| 13  | 58.0  | 53.06  | 37             | 38                               | 10             | 12             | 14             | 28             | 35             | 50             |
| 14  | 62.0  | 57.07  | 41             | 42                               | 10             | 12             | 14             | 28             | 35             | 50             |
| 15  | 66.0  | 61.09  | 45             | 46                               | 10             | 12             | 14             | 28             | 35             | 50             |
| 16  | 70.0  | 65.10  | 50             | 50                               | 12             | 14             | —              | 28             | 35             | —              |
| 17  | 74.0  | 69.11  | 52             | 54                               | 12             | 14             | 16             | 28             | 35             | 50             |
| 18  | 78.0  | 73.14  | 56             | 58                               | 12             | 14             | —              | 28             | 35             | —              |
| 19  | 82.0  | 77.16  | 60             | 62                               | 12             | 14             | 16             | 28             | 35             | 50             |
| 20  | 86.0  | 81.19  | 64             | 66                               | 12             | 14             | 16             | 28             | 35             | 50             |
| 21  | 90.5  | 85.22  | 68             | 70                               | 12             | 16             | 20             | 28             | 40             | 55             |
| 22  | 94.5  | 89.24  | 70             | 70                               | 12             | 16             | —              | 28             | 40             | —              |
| 23  | 98.5  | 93.27  | 70             | 70                               | 14             | 16             | 20             | 28             | 40             | 55             |
| 24  | 102.5 | 97.29  | 70             | 75                               | 14             | 16             | 20             | 28             | 40             | 55             |
| 25  | 107.0 | 101.33 | 70             | 80                               | 14             | 16             | 20             | 28             | 40             | 55             |
| 26  | 111.0 | 105.36 | 70             | —                                | 16             | —              | —              | 30             | —              | —              |
| 27  | 115.0 | 109.40 | 70             | —                                | 16             | —              | —              | 30             | —              | —              |
| 28  | 119.0 | 113.42 | 70             | —                                | 16             | —              | —              | 30             | —              | —              |
| 29  | 123.0 | 117.46 | 80             | —                                | 16             | —              | —              | 30             | —              | —              |
| 30  | 127.0 | 121.50 | 80             | 100                              | 16             | 20             | 20             | 30             | 40             | 55             |
| 31  | 131.0 | 125.54 | 90             | —                                | 16             | —              | —              | 30             | —              | —              |
| 32  | 135.0 | 129.56 | 90             | —                                | 16             | —              | —              | 30             | —              | —              |
| 33  | 139.0 | 133.60 | 90             | —                                | 16             | —              | —              | 30             | —              | —              |
| 34  | 143.0 | 137.64 | 90             | —                                | 16             | —              | —              | 30             | —              | —              |
| 35  | 147.0 | 141.68 | 90             | —                                | 16             | —              | —              | 30             | —              | —              |
| 36  | 151.0 | 145.72 | 90             | —                                | 16             | —              | —              | 35             | —              | —              |
| 37  | 155.0 | 149.76 | 90             | —                                | 16             | —              | —              | 35             | —              | —              |
| 38  | 159.0 | 153.80 | 90             | —                                | 16             | —              | —              | 35             | —              | —              |
| 39  | 163.5 | 157.83 | 90             | —                                | 16             | —              | —              | 35             | —              | —              |
| 40  | 167.5 | 161.87 | 90             | —                                | 16             | —              | —              | 35             | —              | —              |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

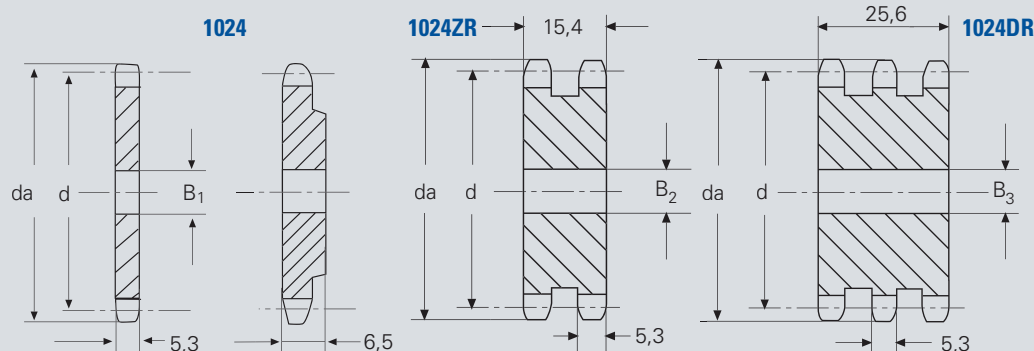
— = kein Lagerrad / pas standard / non standard

### Kettenradscheiben 08B-..., Stahl Disques à chaîne 08B-..., acier Chain wheel plates 08B-..., steel

Ein-, zwei- und dreifach, aus Stahl, passend zu  
Ketten 08B-1, 08B-2 und 08B-3  
( $1\frac{1}{2}'' \times 5/16''$  R  $\varnothing 8.51$  mm)

Simple, double et triple, en acier, correspondant  
aux chaînes 08B-1, 08B-2 et 08B-3  
( $1\frac{1}{2}'' \times 5/16''$  R  $\varnothing 8.51$  mm)

Simplex, duplex and triplex, made of  
steel, compatible to chain 08B-1, 08B-2  
and 08B-3 ( $1\frac{1}{2}'' \times 5/16''$  R  $\varnothing 8.51$  mm)



Bestellbeispiel  
Exemple de commande  
ordering example

| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| 1024                         | 1024ZR                       | 1024DR                        | 10                                              |

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 10  | 46  | 41.10  | 8                                         | —                                         | —                                         |
| 11  | 50  | 45.07  | 10                                        | 12                                        | 14                                        |
| 12  | 54  | 49.07  | 10                                        | 12                                        | 14                                        |
| 13  | 58  | 53.06  | 10                                        | 12                                        | —                                         |
| 14  | 62  | 57.07  | 10                                        | 12                                        | —                                         |
| 15  | 66  | 61.09  | 10                                        | 12                                        | 14                                        |
| 16  | 71  | 65.10  | 10                                        | 14                                        | —                                         |
| 17  | 74  | 69.11  | 10                                        | 14                                        | 16                                        |
| 18  | 78  | 73.14  | 10                                        | 14                                        | 16                                        |
| 19  | 82  | 77.16  | 10                                        | 14                                        | 16                                        |
| 20  | 86  | 81.19  | 10                                        | 14                                        | 16                                        |
| 21  | 91  | 85.21  | 12                                        | 16                                        | 20                                        |
| 22  | 95  | 89.24  | 12                                        | 16                                        | 20                                        |
| 23  | 99  | 93.27  | 12                                        | 16                                        | 20                                        |
| 24  | 103 | 97.29  | 12                                        | 16                                        | 20                                        |
| 25  | 107 | 101.33 | 12                                        | 16                                        | 20                                        |
| 26  | 111 | 105.36 | 16                                        | 16                                        | —                                         |
| 27  | 115 | 109.40 | 16                                        | 16                                        | 20                                        |
| 28  | 119 | 113.42 | 16                                        | 16                                        | 20                                        |
| 29  | 123 | 117.46 | 16                                        | —                                         | —                                         |
| 30  | 127 | 121.50 | 16                                        | 16                                        | 20                                        |
| 31  | 131 | 125.54 | 16                                        | —                                         | —                                         |
| 32  | 135 | 129.56 | 16                                        | 16                                        | —                                         |
| 33  | 139 | 133.60 | 16                                        | —                                         | —                                         |
| 34  | 143 | 137.64 | 16                                        | —                                         | —                                         |
| 35  | 147 | 141.68 | 16                                        | 16                                        | 20                                        |
| 36  | 152 | 145.72 | 16                                        | 20                                        | —                                         |
| 37  | 155 | 149.76 | 16                                        | —                                         | —                                         |
| 38  | 159 | 153.80 | 16                                        | 20                                        | 25                                        |
| 39  | 163 | 157.83 | 16                                        | —                                         | —                                         |
| 40  | 168 | 161.87 | 16                                        | 20                                        | 25                                        |
| 41  | 172 | 165.91 | 20                                        | —                                         | —                                         |
| 42  | 176 | 169.94 | 20                                        | —                                         | —                                         |

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 43  | 180 | 173.98 | 20                                        | 20                                        | —                                         |
| 44  | 184 | 178.02 | 20                                        | —                                         | —                                         |
| 45  | 188 | 182.06 | 20                                        | 20                                        | 25                                        |
| 46  | 193 | 186.10 | 20                                        | —                                         | —                                         |
| 47  | 197 | 190.14 | 20                                        | —                                         | —                                         |
| 48  | 201 | 194.18 | 20                                        | 20                                        | —                                         |
| 49  | 205 | 198.22 | 20                                        | —                                         | —                                         |
| 50  | 209 | 202.26 | 20                                        | 20                                        | 25                                        |
| 52  | 217 | 210.34 | 20                                        | —                                         | —                                         |
| 54  | 225 | 218.43 | 20                                        | 25                                        | —                                         |
| 55  | 229 | 222.46 | 20                                        | 25                                        | —                                         |
| 56  | 233 | 226.50 | 20                                        | —                                         | —                                         |
| 57  | 237 | 230.54 | 20                                        | 25                                        | 25                                        |
| 58  | 241 | 234.58 | 20                                        | —                                         | —                                         |
| 60  | 249 | 242.66 | 20                                        | 25                                        | 25                                        |
| 62  | 257 | 250.74 | 25                                        | —                                         | —                                         |
| 64  | 265 | 258.83 | 25                                        | —                                         | —                                         |
| 65  | 269 | 262.86 | 25                                        | —                                         | —                                         |
| 66  | 273 | 266.91 | 25                                        | —                                         | —                                         |
| 68  | 282 | 274.99 | 25                                        | —                                         | —                                         |
| 70  | 290 | 283.07 | 25                                        | 25                                        | —                                         |
| 72  | 298 | 291.16 | 25                                        | 25                                        | —                                         |
| 75  | 310 | 303.27 | 25                                        | —                                         | —                                         |
| 76  | 314 | 307.33 | 25                                        | 25                                        | 25                                        |
| 80  | 330 | 323.49 | 25                                        | 25                                        | —                                         |
| 85  | 350 | 343.69 | 25                                        | —                                         | —                                         |
| 90  | 371 | 363.90 | 25                                        | —                                         | —                                         |
| 95  | 391 | 384.11 | 25                                        | 25                                        | 25                                        |
| 100 | 411 | 404.32 | 25                                        | —                                         | —                                         |
| 114 | 468 | 460.91 | 25                                        | 25                                        | —                                         |
| 120 | 492 | 485.16 | 25                                        | —                                         | —                                         |
| 150 | 613 | 606.42 | 25                                        | —                                         | —                                         |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

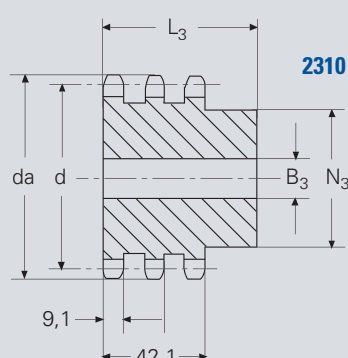
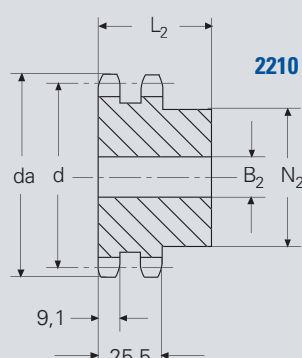
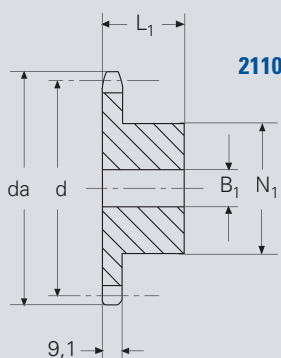
— = kein Lagerrad / pas standard / non standard

### Kettenräder 10B-..., Stahl Roues à chaînes 10B-..., acier Chain wheels 10B-..., steel

Ein-, zwei- und dreifach, aus Stahl, passend zu  
Ketten 10B-1, 10B-2 und 10B-3  
( $\frac{5}{8} \times \frac{3}{8} \times \frac{1}{8}$  R Ø 10.16 mm)

Simple, double et triple, en acier, correspondant  
aux chaînes 10B-1, 10B-2 et 10B-3  
( $\frac{5}{8} \times \frac{3}{8} \times \frac{1}{8}$  R Ø 10.16 mm)

Simplex, duplex and triplex, made of steel,  
compatible to chain 10B-1, 10B-2 and 10B-3  
( $\frac{5}{8} \times \frac{3}{8} \times \frac{1}{8}$  R Ø 10.16 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                              |                               |                                                 |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2110                         | 2210                         | 2310                          | 10                                              |

| z * | da    | d      | N <sub>1</sub> | N <sub>2</sub><br>N <sub>3</sub> | ** Vorgebohrt / Pré alésage /<br>predrilled | B <sub>1</sub> | B <sub>2</sub> | B <sub>3</sub> | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> |
|-----|-------|--------|----------------|----------------------------------|---------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 8   | 47.0  | 41.48  | 25             | —                                | —                                           | 10             | —              | —              | 25             | —              | —              |
| 9   | 53.0  | 46.42  | 30             | —                                | —                                           | 10             | —              | —              | 25             | —              | —              |
| 10  | 58.0  | 51.37  | 35             | 35                               | —                                           | 10             | 12             | —              | 25             | 40             | —              |
| 11  | 62.0  | 56.34  | 37             | 39                               | —                                           | 12             | 14             | —              | 30             | 40             | —              |
| 12  | 67.0  | 61.34  | 42             | 44                               | —                                           | 12             | 14             | 16             | 30             | 40             | 55             |
| 13  | 73.0  | 66.32  | 47             | 49                               | —                                           | 12             | 14             | 16             | 30             | 40             | 55             |
| 14  | 78.0  | 71.34  | 52             | 54                               | —                                           | 12             | 14             | 16             | 30             | 40             | 55             |
| 15  | 83.0  | 76.36  | 57             | 59                               | —                                           | 12             | 14             | 16             | 30             | 40             | 55             |
| 16  | 88.5  | 81.37  | 60             | 64                               | —                                           | 12             | 16             | —              | 30             | 45             | —              |
| 17  | 93.5  | 86.39  | 60             | 69                               | —                                           | 12             | 16             | 16             | 30             | 45             | 60             |
| 18  | 98.5  | 91.42  | 70             | 74                               | —                                           | 14             | 16             | —              | 30             | 45             | —              |
| 19  | 103.5 | 96.45  | 70             | 79                               | —                                           | 14             | 16             | 16             | 30             | 45             | 60             |
| 20  | 109.0 | 101.49 | 75             | 84                               | —                                           | 14             | 16             | 16             | 30             | 45             | 60             |
| 21  | 114.0 | 106.52 | 75             | 85                               | —                                           | 16             | 16             | 20             | 30             | 45             | 60             |
| 22  | 119.0 | 111.55 | 80             | 90                               | —                                           | 16             | 16             | —              | 30             | 45             | —              |
| 23  | 124.0 | 116.58 | 80             | 95                               | —                                           | 16             | 16             | 20             | 30             | 45             | 60             |
| 24  | 129.0 | 121.62 | 80             | 100                              | —                                           | 16             | 16             | —              | 30             | 45             | —              |
| 25  | 134.0 | 126.66 | 80             | 105                              | —                                           | 16             | 16             | 20             | 30             | 45             | 60             |
| 26  | 139.0 | 131.70 | 85             | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 27  | 144.0 | 136.75 | 85             | 110                              | —                                           | 20             | —              | 20             | 35             | —              | 60             |
| 28  | 149.0 | 141.78 | 90             | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 29  | 154.0 | 146.83 | 90             | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 30  | 159.0 | 151.87 | 90             | 120                              | —                                           | 20             | 20             | 20             | 35             | 45             | 60             |
| 31  | 164.5 | 156.92 | 95             | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 32  | 169.5 | 161.95 | 95             | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 33  | 174.5 | 167.00 | 95             | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 34  | 179.5 | 172.05 | 95             | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 35  | 184.5 | 177.10 | 95             | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 36  | 189.5 | 182.15 | 100            | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 37  | 194.5 | 187.20 | 100            | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 38  | 199.5 | 192.24 | 100            | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 39  | 204.5 | 197.29 | 100            | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |
| 40  | 209.5 | 202.34 | 100            | —                                | —                                           | 20             | —              | —              | 35             | —              | —              |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

— = kein Lagerrad / pas standard / non standard

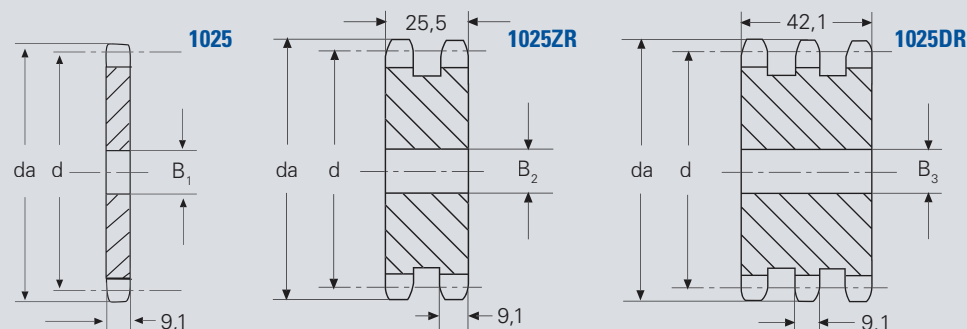
## Kettenradscheiben 10B-..., Stahl Disques à chaîne 10B-..., acier Chain wheel plates 10B-..., steel

Ein-, zwei- und dreifach, aus Stahl, passend zu  
Ketten 10B-1, 10B-2 und 10B-3  
( $\frac{5}{8}'' \times \frac{3}{8}''$  RØ 10.16 mm)

Simple, double et triple, en acier, correspondant  
aux chaînes 10B-1, 10B-2 et 10B-3  
( $\frac{5}{8}'' \times \frac{3}{8}''$  RØ 10.16 mm)



Simplex, duplex and triplex, made of  
steel, compatible to chain 10B-1, 10B-2  
and 10B-3 ( $\frac{5}{8}'' \times \frac{3}{8}''$  RØ 10.16 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| 1025                         | 1025ZR                       | 1025DR                        | 10                                              |

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 10  | 57  | 51.37  | 10                                        | —                                         | —                                         |
| 11  | 62  | 56.34  | 10                                        | 14                                        | —                                         |
| 12  | 67  | 61.34  | 10                                        | 14                                        | —                                         |
| 13  | 73  | 66.32  | 10                                        | 14                                        | —                                         |
| 14  | 78  | 71.34  | 10                                        | 14                                        | —                                         |
| 15  | 83  | 76.36  | 10                                        | 14                                        | —                                         |
| 16  | 88  | 81.37  | 12                                        | 16                                        | —                                         |
| 17  | 93  | 86.40  | 12                                        | 16                                        | 16                                        |
| 18  | 98  | 91.42  | 12                                        | 16                                        | 16                                        |
| 19  | 103 | 96.45  | 12                                        | 16                                        | 16                                        |
| 20  | 108 | 101.49 | 12                                        | 16                                        | 16                                        |
| 21  | 113 | 106.52 | 12                                        | 16                                        | 20                                        |
| 22  | 119 | 111.55 | 12                                        | 16                                        | 20                                        |
| 23  | 124 | 116.58 | 12                                        | 16                                        | 20                                        |
| 24  | 129 | 121.62 | 12                                        | 16                                        | 20                                        |
| 25  | 134 | 126.66 | 12                                        | 16                                        | 20                                        |
| 26  | 139 | 131.70 | 16                                        | 16                                        | 20                                        |
| 27  | 144 | 136.75 | 16                                        | 16                                        | 20                                        |
| 28  | 149 | 141.78 | 16                                        | 16                                        | 20                                        |
| 29  | 154 | 146.83 | 16                                        | —                                         | —                                         |
| 30  | 159 | 151.87 | 16                                        | 16                                        | 20                                        |
| 31  | 164 | 156.92 | 16                                        | —                                         | —                                         |
| 32  | 169 | 161.95 | 16                                        | 20                                        | —                                         |
| 33  | 174 | 167.00 | 16                                        | —                                         | —                                         |
| 34  | 179 | 172.05 | 16                                        | —                                         | —                                         |
| 35  | 185 | 177.10 | 16                                        | 20                                        | 20                                        |
| 36  | 190 | 182.15 | 20                                        | 20                                        | —                                         |
| 37  | 195 | 187.20 | 20                                        | —                                         | —                                         |
| 38  | 200 | 192.24 | 20                                        | 20                                        | 25                                        |
| 39  | 205 | 197.29 | 20                                        | —                                         | —                                         |
| 40  | 210 | 202.34 | 20                                        | 20                                        | 25                                        |
| 41  | 215 | 207.38 | 20                                        | —                                         | —                                         |

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 42  | 220 | 212.43 | 20                                        | —                                         | —                                         |
| 43  | 225 | 217.48 | 20                                        | —                                         | —                                         |
| 44  | 230 | 222.53 | 20                                        | —                                         | —                                         |
| 45  | 235 | 227.58 | 20                                        | 20                                        | 25                                        |
| 46  | 240 | 232.63 | 20                                        | —                                         | —                                         |
| 47  | 245 | 237.68 | 20                                        | —                                         | —                                         |
| 48  | 250 | 242.73 | 20                                        | 25                                        | —                                         |
| 49  | 255 | 247.78 | 20                                        | —                                         | —                                         |
| 50  | 260 | 252.83 | 20                                        | 25                                        | 25                                        |
| 52  | 271 | 262.93 | 20                                        | —                                         | —                                         |
| 54  | 281 | 273.03 | 20                                        | 25                                        | —                                         |
| 55  | 286 | 278.08 | 20                                        | —                                         | —                                         |
| 56  | 291 | 283.13 | 25                                        | —                                         | —                                         |
| 57  | 296 | 288.18 | 25                                        | 25                                        | 25                                        |
| 58  | 301 | 293.23 | 25                                        | —                                         | —                                         |
| 60  | 311 | 303.33 | 25                                        | 25                                        | 25                                        |
| 62  | 321 | 313.43 | 25                                        | —                                         | —                                         |
| 64  | 331 | 323.53 | 25                                        | —                                         | —                                         |
| 65  | 336 | 328.58 | 25                                        | —                                         | —                                         |
| 68  | 352 | 343.74 | 25                                        | —                                         | —                                         |
| 70  | 362 | 353.84 | 25                                        | 25                                        | —                                         |
| 72  | 372 | 363.94 | 25                                        | —                                         | —                                         |
| 75  | 387 | 379.09 | 25                                        | —                                         | —                                         |
| 76  | 392 | 384.15 | 25                                        | 25                                        | 30                                        |
| 80  | 412 | 404.36 | 25                                        | 30                                        | —                                         |
| 85  | 437 | 429.62 | 30                                        | —                                         | —                                         |
| 90  | 463 | 454.88 | 30                                        | —                                         | —                                         |
| 95  | 488 | 480.14 | 30                                        | 30                                        | —                                         |
| 100 | 513 | 505.40 | 30                                        | —                                         | —                                         |
| 114 | 584 | 576.13 | 30                                        | —                                         | —                                         |
| 120 | 614 | 606.45 | 30                                        | —                                         | —                                         |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

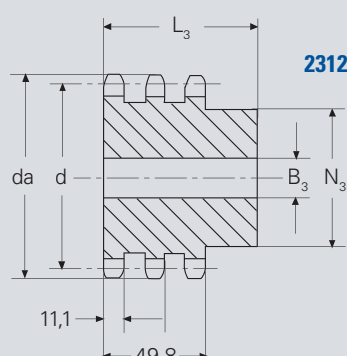
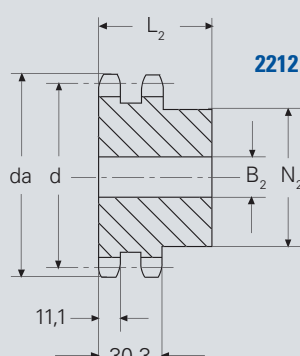
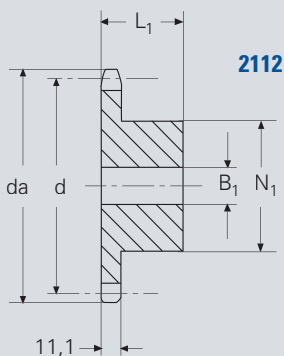
— = kein Lagerrad / pas standard / non standard

## Kettenräder 12B-..., Stahl Roues à chaînes 12B-..., acier Chain wheels 12B-..., steel

Ein-, zwei- und dreifach, aus Stahl, passend zu  
Ketten 12B-1, 12B-2 und 12B-3  
( $\frac{3}{4}$ "  $\times$   $\frac{7}{16}$ " R  $\varnothing$  12.07 mm)

Simple, double et triple, en acier, correspondant  
aux chaînes 12B-1, 12B-2 et 12B-3  
( $\frac{3}{4}$ "  $\times$   $\frac{7}{16}$ " R  $\varnothing$  12.07 mm)

Simplex, duplex and triplex, made of steel,  
compatible to chain 12B-1, 12B-2 and 12B-3  
( $\frac{3}{4}$ "  $\times$   $\frac{7}{16}$ " R  $\varnothing$  12.07 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                              |                               |                                                 |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2112                         | 2212                         | 2312                          | 10                                              |

| z * | da    | d      | N <sub>1</sub> | N <sub>2</sub><br>N <sub>3</sub> | ** Vorgebohrt / Pré alésage /<br>predrilled | B <sub>1</sub> | B <sub>2</sub> | B <sub>3</sub> | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> |
|-----|-------|--------|----------------|----------------------------------|---------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 9   | 63.0  | 55.70  | 37             | —                                |                                             | 12             | —              | —              | 30             | —              | —              |
| 10  | 69.0  | 61.64  | 42             | 42                               |                                             | 12             | 12             | —              | 30             | 45             | —              |
| 11  | 75.0  | 67.61  | 46             | 47                               |                                             | 14             | 16             | —              | 35             | 50             | —              |
| 12  | 81.0  | 73.60  | 52             | 53                               |                                             | 14             | 16             | 20             | 35             | 50             | 70             |
| 13  | 87.0  | 79.59  | 58             | 59                               |                                             | 14             | 16             | 20             | 35             | 50             | 70             |
| 14  | 93.5  | 85.61  | 64             | 65                               |                                             | 14             | 16             | 20             | 35             | 50             | 70             |
| 15  | 100.0 | 91.63  | 70             | 71                               |                                             | 14             | 16             | 20             | 35             | 50             | 70             |
| 16  | 106.0 | 97.65  | 75             | 77                               |                                             | 16             | 20             | 20             | 35             | 50             | 70             |
| 17  | 112.5 | 103.67 | 80             | 83                               |                                             | 16             | 20             | 20             | 35             | 50             | 70             |
| 18  | 118.5 | 109.71 | 80             | 89                               |                                             | 16             | 20             | —              | 35             | 50             | —              |
| 19  | 124.5 | 115.75 | 80             | 95                               |                                             | 16             | 20             | 20             | 35             | 50             | 70             |
| 20  | 130.5 | 121.78 | 80             | 100                              |                                             | 16             | 20             | 20             | 35             | 50             | 70             |
| 21  | 136.5 | 127.82 | 90             | 100                              |                                             | 20             | 20             | 20             | 40             | 50             | 70             |
| 22  | 142.5 | 133.86 | 90             | 100                              |                                             | 20             | 20             | 20             | 40             | 50             | 70             |
| 23  | 148.5 | 139.90 | 90             | 110                              |                                             | 20             | 20             | 20             | 40             | 50             | 70             |
| 24  | 154.5 | 145.94 | 90             | 110                              |                                             | 20             | 20             | 20             | 40             | 50             | 70             |
| 25  | 160.5 | 152.00 | 90             | 120                              |                                             | 20             | 20             | 20             | 40             | 50             | 70             |
| 26  | 166.5 | 158.04 | 95             | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 27  | 172.5 | 164.09 | 95             | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 28  | 179.0 | 170.13 | 95             | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 29  | 185.0 | 176.19 | 95             | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 30  | 191.0 | 182.25 | 95             | 120                              |                                             | 20             | 20             | 20             | 40             | 50             | 70             |
| 31  | 197.0 | 188.31 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 32  | 203.0 | 194.35 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 33  | 209.0 | 200.40 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 34  | 215.0 | 206.46 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 35  | 221.0 | 212.52 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 36  | 227.0 | 218.58 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 37  | 233.5 | 224.64 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 38  | 239.5 | 230.69 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 39  | 245.5 | 236.75 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |
| 40  | 251.5 | 242.81 | 100            | —                                |                                             | 20             | —              | —              | 40             | —              | —              |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

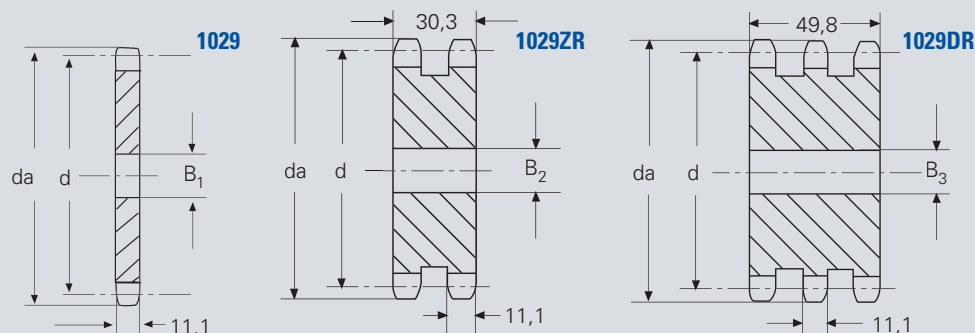
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## Kettenradscheiben 12B-..., Stahl Disques à chaîn 12B-..., acier Chain wheel plates 12B-..., steel

Ein-, zwei- und dreifach, aus Stahl, passend zu  
Ketten 12B-1, 12B-2 und 12B-3  
( $\frac{3}{4}'' \times \frac{7}{16}''$  R Ø 12.07 mm)

Simple, double et triple, en acier, correspondant  
aux chaînes 12B-1, 12B-2 et 12B-3  
( $\frac{3}{4}'' \times \frac{7}{16}''$  R Ø 12.07 mm)

Simplex, duplex and triplex, made of  
steel, compatible to chain 12B-1, 12B-2  
and 12B-3 ( $\frac{3}{4}'' \times \frac{7}{16}''$  R Ø 12.07 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

Einfach  
Simple  
Simplex  
**1029**

Zweifach  
Double  
Duplex  
**1029ZR**

Dreifach  
Triple  
Triplex  
**1029DR**

Zähnezahl  
nombre de dents  
number of teeth  
**10**

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 10  | 68  | 61.64  | 12                                        | —                                         | —                                         |
| 11  | 75  | 67.61  | 14                                        | —                                         | —                                         |
| 12  | 81  | 73.60  | 14                                        | 16                                        | —                                         |
| 13  | 87  | 79.59  | 14                                        | 16                                        | —                                         |
| 14  | 93  | 85.61  | 14                                        | 16                                        | —                                         |
| 15  | 99  | 91.63  | 14                                        | 16                                        | —                                         |
| 16  | 105 | 97.65  | 14                                        | 20                                        | —                                         |
| 17  | 112 | 103.67 | 14                                        | 20                                        | 20                                        |
| 18  | 118 | 109.71 | 14                                        | 20                                        | 20                                        |
| 19  | 124 | 115.75 | 14                                        | 20                                        | 20                                        |
| 20  | 130 | 121.78 | 14                                        | 20                                        | 20                                        |
| 21  | 136 | 127.82 | 16                                        | 20                                        | 20                                        |
| 22  | 142 | 133.86 | 16                                        | 20                                        | 20                                        |
| 23  | 148 | 139.90 | 16                                        | 20                                        | 20                                        |
| 24  | 154 | 145.94 | 16                                        | 20                                        | 20                                        |
| 25  | 160 | 152.00 | 16                                        | 20                                        | 20                                        |
| 26  | 167 | 158.04 | 16                                        | 20                                        | —                                         |
| 27  | 173 | 164.09 | 16                                        | 20                                        | 20                                        |
| 28  | 179 | 170.13 | 16                                        | 20                                        | 20                                        |
| 29  | 185 | 176.19 | 16                                        | —                                         | —                                         |
| 30  | 191 | 182.25 | 16                                        | 20                                        | 20                                        |
| 31  | 197 | 188.31 | 20                                        | —                                         | —                                         |
| 32  | 203 | 194.35 | 20                                        | 20                                        | —                                         |
| 33  | 209 | 200.40 | 20                                        | —                                         | —                                         |
| 34  | 215 | 206.46 | 20                                        | —                                         | —                                         |
| 35  | 221 | 212.52 | 20                                        | 20                                        | 25                                        |
| 36  | 227 | 218.58 | 20                                        | 25                                        | —                                         |
| 37  | 234 | 224.64 | 20                                        | —                                         | —                                         |
| 38  | 240 | 230.69 | 20                                        | 25                                        | 25                                        |
| 39  | 246 | 236.75 | 20                                        | —                                         | —                                         |
| 40  | 252 | 242.80 | 20                                        | 25                                        | 25                                        |

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 41  | 258 | 248.86 | 25                                        | —                                         | —                                         |
| 42  | 264 | 254.92 | 25                                        | —                                         | —                                         |
| 43  | 270 | 260.98 | 25                                        | —                                         | —                                         |
| 44  | 276 | 267.03 | 25                                        | —                                         | —                                         |
| 45  | 282 | 273.09 | 25                                        | 25                                        | 25                                        |
| 46  | 288 | 279.15 | 25                                        | —                                         | —                                         |
| 47  | 294 | 285.21 | 25                                        | —                                         | —                                         |
| 48  | 300 | 291.27 | 25                                        | 25                                        | —                                         |
| 49  | 306 | 297.33 | 25                                        | —                                         | —                                         |
| 50  | 312 | 303.39 | 25                                        | 25                                        | 25                                        |
| 52  | 325 | 315.51 | 25                                        | 25                                        | —                                         |
| 54  | 337 | 327.63 | 25                                        | 25                                        | —                                         |
| 55  | 343 | 333.69 | 25                                        | —                                         | —                                         |
| 56  | 349 | 339.75 | 25                                        | —                                         | —                                         |
| 57  | 355 | 345.81 | 25                                        | 25                                        | 30                                        |
| 58  | 361 | 351.87 | 25                                        | —                                         | —                                         |
| 60  | 373 | 363.99 | 25                                        | —                                         | —                                         |
| 62  | 385 | 376.12 | 25                                        | —                                         | —                                         |
| 64  | 397 | 388.24 | 25                                        | —                                         | —                                         |
| 65  | 404 | 394.30 | 25                                        | —                                         | —                                         |
| 68  | 422 | 412.49 | 30                                        | —                                         | —                                         |
| 70  | 434 | 424.61 | 30                                        | —                                         | —                                         |
| 72  | 446 | 436.73 | 30                                        | —                                         | —                                         |
| 75  | 464 | 454.92 | 30                                        | —                                         | —                                         |
| 76  | 470 | 460.98 | 30                                        | 30                                        | —                                         |
| 80  | 495 | 485.23 | 30                                        | 30                                        | —                                         |
| 90  | 555 | 545.85 | 30                                        | —                                         | —                                         |
| 95  | 586 | 576.17 | 30                                        | 30                                        | —                                         |
| 100 | 616 | 606.48 | 30                                        | —                                         | —                                         |
| 114 | 701 | 691.36 | 30                                        | 30                                        | —                                         |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

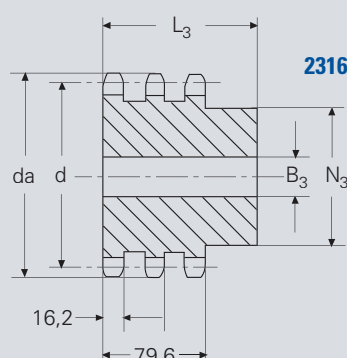
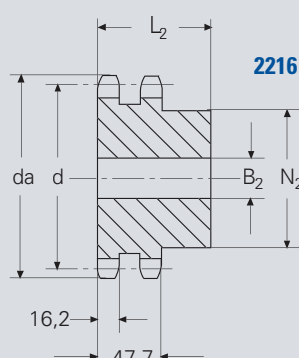
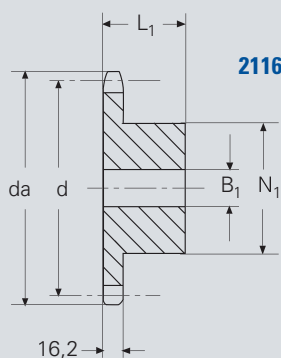
— = kein Lagerrad / pas standard / non standard

## Kettenräder 16B-..., Stahl Roues à chaînes 16B-..., acier Chain wheels 16B-..., steel

Ein-, zwei- und dreifach, aus Stahl, passend zu  
Ketten 16B-1, 16B-2 und 16B-3  
(1" × 17.02 mm R Ø 15.88 mm)

Simple, double et triple, en acier, correspondant  
aux chaînes 16B-1, 16B-2 et 16B-3  
(1" × 17.02 mm R Ø 15.88 mm)

Simplex, duplex and triplex, made of steel,  
compatible to chain 16B-1, 16B-2 and 16B-3  
(1" × 17.02 mm R Ø 15.88 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                              |                               |                                                 |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2116                         | 2216                         | 2316                          | 10                                              |

| z * | da    | d      | N <sub>1</sub> | N <sub>2</sub><br>N <sub>3</sub> | ** Vorgebohrt / Pré alésage /<br>predrilled | B <sub>1</sub> | B <sub>2</sub> | B <sub>3</sub> | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> |
|-----|-------|--------|----------------|----------------------------------|---------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 10  | 92.0  | 82.19  | 55             | 56                               |                                             | 16             | 16             | —              | 35             | 65             | —              |
| 11  | 100.0 | 90.14  | 61             | 64                               |                                             | 16             | 20             | —              | 40             | 70             | —              |
| 12  | 108.0 | 98.14  | 69             | 72                               |                                             | 16             | 20             | 25             | 40             | 70             | 100            |
| 13  | 117.0 | 106.12 | 78             | 80                               |                                             | 16             | 20             | 25             | 40             | 70             | 100            |
| 14  | 125.0 | 114.15 | 84             | 88                               |                                             | 16             | 20             | 25             | 40             | 70             | 100            |
| 15  | 133.5 | 122.17 | 92             | 96                               |                                             | 16             | 20             | 25             | 40             | 70             | 100            |
| 16  | 141.5 | 130.20 | 100            | 104                              |                                             | 20             | 20             | —              | 45             | 70             | —              |
| 17  | 149.5 | 138.22 | 100            | 112                              |                                             | 20             | 20             | 30             | 45             | 70             | 100            |
| 18  | 157.5 | 146.28 | 100            | 120                              |                                             | 20             | 20             | 30             | 45             | 70             | 100            |
| 19  | 165.5 | 154.33 | 100            | 128                              |                                             | 20             | 20             | 30             | 45             | 70             | 100            |
| 20  | 173.5 | 162.38 | 100            | 130***                           |                                             | 20             | 20             | —              | 45             | 70             | —              |
| 21  | 182.0 | 170.43 | 110            | 130***                           |                                             | 20             | 25             | 30             | 50             | 70             | 100            |
| 22  | 190.0 | 178.48 | 110            | 130***                           |                                             | 20             | 25             | 30             | 50             | 70             | 100            |
| 23  | 198.0 | 186.54 | 110            | 130***                           |                                             | 20             | 25             | 30             | 50             | 70             | 100            |
| 24  | 206.0 | 194.59 | 110            | 130***                           |                                             | 20             | 25             | —              | 50             | 70             | —              |
| 25  | 214.0 | 202.66 | 110            | 130***                           |                                             | 20             | 25             | 30             | 50             | 70             | 100            |
| 26  | 222.0 | 210.72 | 118            | —                                |                                             | 20             | —              | —              | 50             | —              | —              |
| 27  | 230.0 | 218.79 | 118            | —                                |                                             | 20             | —              | —              | 50             | —              | —              |
| 28  | 238.0 | 226.85 | 118            | —                                |                                             | 20             | —              | —              | 50             | —              | —              |
| 29  | 246.5 | 234.92 | 118            | —                                |                                             | 20             | —              | —              | 50             | —              | —              |
| 30  | 254.5 | 243.00 | 118            | 130***                           |                                             | 20             | 25             | 30             | 50             | 70             | 100            |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

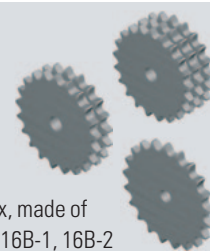
\*\*\* mit geschweisster Nabe / avec moyeu soudé / With welded hub

— = kein Lagerrad / pas standard / non standard

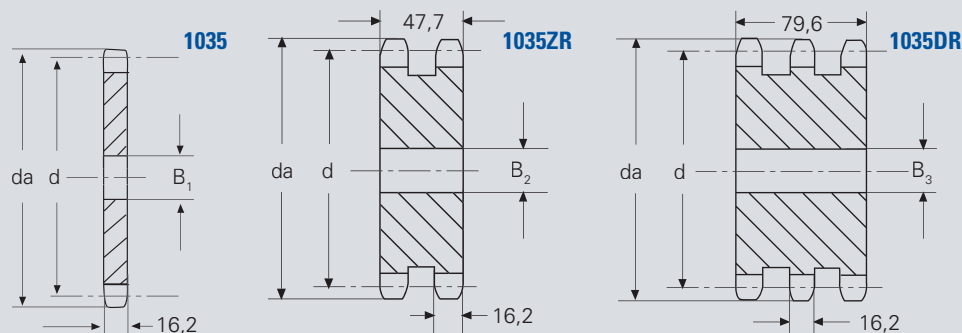
## Kettenradscheiben 16B-..., Stahl Disques à chaîn 16B-..., acier Chain wheel plates 16B-..., steel

Ein-, zwei- und dreifach, aus Stahl, passend zu  
Ketten 16B-1, 16B-2 und 16B-3  
(1" × 17.02 mm RØ15.88 mm)

Simple, double et triple, en acier, correspondant  
aux chaînes 16B-1, 16B-2 et 16B-3  
(1" × 17.02 mm RØ15.88 mm)



Simplex, duplex and triplex, made of  
steel, compatible to chain 16B-1, 16B-2  
and 16B-3 (1" × 17.02 mm RØ15.88 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

| Einfach<br>Simple<br>Simplex | Zweifach<br>Double<br>Duplex | Dreifach<br>Triple<br>Triplex | Zähnezahl<br>nombre de dents<br>number of teeth |
|------------------------------|------------------------------|-------------------------------|-------------------------------------------------|
| 1035                         | 1035ZR                       | 1035DR                        | 10                                              |

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 10  | 91  | 82.19  | 15                                        | —                                         | —                                         |
| 11  | 99  | 90.14  | 15                                        | —                                         | —                                         |
| 12  | 108 | 98.14  | 15                                        | —                                         | —                                         |
| 13  | 116 | 106.12 | 15                                        | 20                                        | —                                         |
| 14  | 124 | 114.15 | 15                                        | 20                                        | —                                         |
| 15  | 132 | 122.17 | 15                                        | 20                                        | 25                                        |
| 16  | 140 | 130.20 | 19                                        | 20                                        | —                                         |
| 17  | 149 | 138.22 | 19                                        | 20                                        | 30                                        |
| 18  | 157 | 146.28 | 19                                        | 20                                        | 30                                        |
| 19  | 165 | 154.33 | 19                                        | 20                                        | 30                                        |
| 20  | 173 | 162.38 | 19                                        | 20                                        | 30                                        |
| 21  | 181 | 170.43 | 20                                        | 25                                        | 30                                        |
| 22  | 189 | 178.48 | 20                                        | 25                                        | 30                                        |
| 23  | 198 | 186.54 | 20                                        | 25                                        | 30                                        |
| 24  | 206 | 194.59 | 20                                        | 25                                        | 30                                        |
| 25  | 214 | 202.66 | 20                                        | 25                                        | 30                                        |
| 26  | 222 | 210.72 | 20                                        | 25                                        | —                                         |
| 27  | 230 | 218.79 | 20                                        | 25                                        | 30                                        |
| 28  | 238 | 226.85 | 20                                        | 25                                        | 30                                        |
| 29  | 246 | 234.92 | 20                                        | —                                         | —                                         |
| 30  | 254 | 243.00 | 20                                        | 25                                        | 30                                        |
| 31  | 263 | 251.07 | 25                                        | —                                         | —                                         |
| 32  | 271 | 259.14 | 25                                        | 25                                        | —                                         |
| 33  | 279 | 267.21 | 25                                        | —                                         | —                                         |
| 34  | 287 | 275.28 | 25                                        | —                                         | —                                         |
| 35  | 295 | 283.36 | 25                                        | 25                                        | 30                                        |
| 36  | 303 | 291.43 | 25                                        | 25                                        | —                                         |
| 37  | 311 | 299.51 | 25                                        | 25                                        | —                                         |

| z * | da  | d      | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled | **Vorgebohrt<br>Pré alésage<br>predrilled |
|-----|-----|--------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 38  | 319 | 307.59 | 25                                        | 25                                        | 30                                        |
| 40  | 335 | 323.74 | 25                                        | 25                                        | 30                                        |
| 41  | 344 | 331.81 | 25                                        | —                                         | —                                         |
| 42  | 352 | 339.89 | 25                                        | —                                         | —                                         |
| 43  | 360 | 347.97 | 25                                        | —                                         | —                                         |
| 44  | 368 | 356.05 | 25                                        | —                                         | —                                         |
| 45  | 376 | 364.12 | 25                                        | 25                                        | 30                                        |
| 46  | 384 | 372.20 | 25                                        | —                                         | —                                         |
| 48  | 400 | 388.36 | 25                                        | 30                                        | —                                         |
| 49  | 408 | 396.44 | 25                                        | —                                         | —                                         |
| 50  | 416 | 404.52 | 25                                        | 30                                        | —                                         |
| 52  | 433 | 420.68 | 30                                        | —                                         | —                                         |
| 54  | 448 | 436.85 | 30                                        | —                                         | —                                         |
| 55  | 457 | 444.92 | 30                                        | 30                                        | —                                         |
| 56  | 465 | 453.00 | 30                                        | —                                         | —                                         |
| 57  | 473 | 461.08 | 30                                        | 30                                        | 40                                        |
| 60  | 497 | 485.33 | 30                                        | —                                         | —                                         |
| 62  | 513 | 501.50 | 30                                        | —                                         | —                                         |
| 65  | 538 | 525.73 | 30                                        | —                                         | —                                         |
| 68  | 562 | 549.98 | 30                                        | —                                         | —                                         |
| 70  | 578 | 566.15 | 30                                        | —                                         | —                                         |
| 72  | 593 | 582.32 | 30                                        | —                                         | —                                         |
| 75  | 619 | 606.56 | 30                                        | —                                         | —                                         |
| 76  | 627 | 614.64 | 30                                        | 30                                        | —                                         |
| 80  | 659 | 646.97 | 30                                        | 30                                        | —                                         |
| 90  | 740 | 727.80 | 30                                        | —                                         | —                                         |
| 95  | 781 | 768.22 | 30                                        | 30                                        | —                                         |
| 114 | 934 | 921.82 | 30                                        | —                                         | —                                         |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

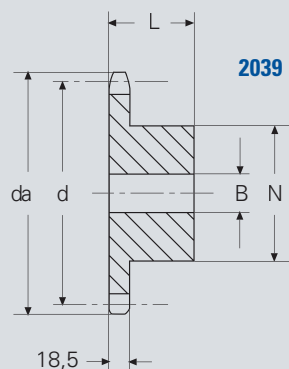
— = kein Lagerrad / pas standard / non standard

### Kettenräder 20B-1, Stahl Roues à chaînes 20B-1, acier Chain wheels 20B-1, steel

Einfach, aus Stahl, passend zu Ketten  
20B-1 ( $1\frac{1}{4}" \times \frac{3}{4}"$  R  $\varnothing 19.05$  mm)

Simple, en acier, correspondant aux chaînes  
20B-1 ( $1\frac{1}{4}" \times \frac{3}{4}"$  R  $\varnothing 19.05$  mm)

Simplex, made of steel, compatible to chain  
20B-1 ( $1\frac{1}{4}" \times \frac{3}{4}"$  R  $\varnothing 19.05$  mm)



#### Bestellbeispiel Exemple de commande ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2039                         | 11                                              |

| z * | ** Vorgebohrt / Pré alésage /<br>predrilled |        |         |    |    |
|-----|---------------------------------------------|--------|---------|----|----|
|     | da                                          | d      | N       | B  | L  |
| 10  | 113                                         | 102.75 | 70      | 20 | 40 |
| 11  | 123                                         | 112.69 | 77      | 20 | 45 |
| 12  | 134                                         | 122.67 | 88      | 20 | 45 |
| 13  | 148                                         | 132.67 | 98      | 20 | 45 |
| 14  | 158                                         | 142.68 | 108     | 20 | 45 |
| 15  | 168                                         | 152.71 | 118     | 20 | 45 |
| 16  | 178                                         | 162.74 | 120     | 25 | 50 |
| 17  | 186                                         | 172.79 | 120     | 25 | 50 |
| 18  | 198                                         | 182.84 | 120     | 25 | 50 |
| 19  | 207                                         | 192.90 | 120     | 25 | 50 |
| 20  | 218                                         | 202.96 | 120     | 25 | 50 |
| 21  | 228                                         | 213.03 | 140     | 25 | 55 |
| 22  | 238                                         | 223.10 | 140     | 25 | 55 |
| 23  | 248                                         | 233.17 | 140     | 25 | 55 |
| 24  | 258                                         | 243.23 | 140     | 25 | 55 |
| 25  | 268                                         | 253.33 | 140     | 25 | 55 |
| 27  | 288                                         | 273.49 | 150 *** | 25 | 55 |
| 30  | 318                                         | 303.75 | 150 **  | 25 | 55 |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

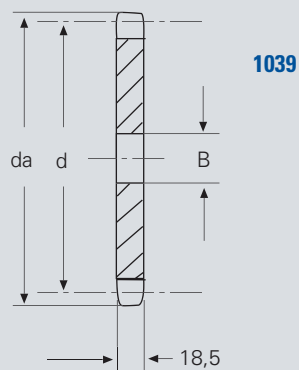
\*\*\* mit geschweisster Nabe / avec moyeu soudé / With welded hub

### Kettenradscheiben 20B-1, Stahl Disques à chaîn 20B-1, acier Chain wheel plates 20B-1, steel

Einfach, aus Stahl, passend zu Ketten  
20B-1 ( $1\frac{1}{4}" \times \frac{3}{4}"$  R Ø 19.05 mm)

Simple, en acier, correspondant aux chaînes  
20B-1 ( $1\frac{1}{4}" \times \frac{3}{4}"$  R Ø 19.05 mm)

Simplex, made of steel, compatible to chain  
20B-1 ( $1\frac{1}{4}" \times \frac{3}{4}"$  R Ø 19.05 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 1039                         | 11                                              |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 10                                          | 113 | 102.75 | 16 |
| 11                                          | 123 | 112.69 | 16 |
| 12                                          | 134 | 122.67 | 20 |
| 13                                          | 147 | 132.67 | 20 |
| 14                                          | 157 | 142.68 | 20 |
| 15                                          | 167 | 152.71 | 20 |
| 16                                          | 178 | 162.74 | 25 |
| 17                                          | 186 | 172.79 | 25 |
| 18                                          | 198 | 182.84 | 25 |
| 19                                          | 207 | 192.90 | 25 |
| 20                                          | 218 | 202.96 | 25 |
| 21                                          | 228 | 213.03 | 25 |
| 22                                          | 238 | 223.10 | 25 |
| 23                                          | 248 | 233.17 | 25 |
| 24                                          | 258 | 243.25 | 25 |
| 25                                          | 268 | 253.33 | 25 |
| 26                                          | 279 | 263.41 | 25 |
| 27                                          | 289 | 273.49 | 25 |
| 28                                          | 299 | 283.57 | 25 |
| 29                                          | 309 | 293.66 | 25 |
| 30                                          | 319 | 303.75 | 25 |
| 32                                          | 340 | 323.91 | 25 |
| 33                                          | 348 | 334.01 | 25 |
| 35                                          | 369 | 354.20 | 25 |
| 36                                          | 379 | 364.29 | 25 |
| 38                                          | 399 | 384.48 | 25 |
| 40                                          | 419 | 404.67 | 25 |
| 42                                          | 439 | 424.86 | 30 |
| 45                                          | 470 | 455.16 | 30 |
| 48                                          | 500 | 485.45 | 30 |
| 50                                          | 520 | 505.65 | 30 |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 55                                          | 571 | 556.15 | 30 |
| 57                                          | 591 | 576.35 | 30 |
| 60                                          | 621 | 606.66 | 30 |
| 65                                          | 672 | 657.17 | 30 |
| 70                                          | 722 | 707.68 | 30 |
| 76                                          | 783 | 768.30 | 30 |

\* Zähnezahl / nombre de dents / Number of teeth

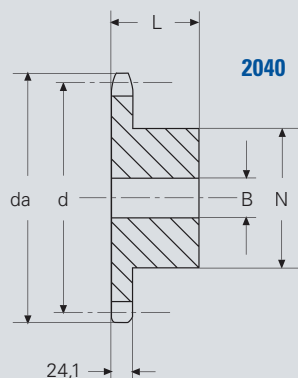
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

### Kettenräder 24B-1, Stahl Roues à chaînes 24B-1, acier Chain wheels 24B-1, steel

Einfach, aus Stahl, passend zu Ketten  
24B-1 ( $1\frac{1}{2}" \times 1" R \varnothing 25.4 \text{ mm}$ )

Simple, en acier, correspondant aux chaînes  
24B-1 ( $1\frac{1}{2}" \times 1" R \varnothing 25.4 \text{ mm}$ )

Simplex, made of steel, compatible to chain  
24B-1 ( $1\frac{1}{2}" \times 1" R \varnothing 25.4 \text{ mm}$ )



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | Zähnezahl<br>nombre de dents<br>number of teeth |
| 2040                         | 11                                              |

| z * | ** Vorgebohrt / Pré alésage /<br>predrilled |        |        |    |    |
|-----|---------------------------------------------|--------|--------|----|----|
|     | da                                          | d      | N      | B  | L  |
| 10  | 137                                         | 123.29 | 80     | 20 | 45 |
| 11  | 148                                         | 135.23 | 90     | 25 | 50 |
| 12  | 163                                         | 147.21 | 102    | 25 | 50 |
| 13  | 175                                         | 159.20 | 114    | 25 | 50 |
| 14  | 187                                         | 171.22 | 128    | 25 | 50 |
| 15  | 199                                         | 183.25 | 140*** | 25 | 50 |
| 16  | 210                                         | 195.29 | 140*** | 25 | 55 |
| 17  | 222                                         | 207.35 | 140*** | 25 | 55 |
| 18  | 234                                         | 219.41 | 140*** | 25 | 55 |
| 19  | 247                                         | 231.48 | 140*** | 25 | 55 |
| 20  | 259                                         | 243.55 | 140*** | 25 | 55 |
| 21  | 271                                         | 255.63 | 150*** | 25 | 60 |
| 22  | 283                                         | 267.72 | 150*** | 25 | 60 |
| 23  | 295                                         | 279.80 | 150*** | 25 | 60 |
| 24  | 307                                         | 291.90 | 150*** | 25 | 60 |
| 25  | 319                                         | 303.99 | 150*** | 25 | 60 |
| 27  | 343                                         | 328.19 | 160*** | 30 | 60 |
| 30  | 379                                         | 364.50 | 160*** | 30 | 60 |

\* Zähnezahl / nombre de dents / Number of teeth

\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alesage fini supérieur d'au moins 1 mm / Finished bore, to be defined at least 1 mm bigger

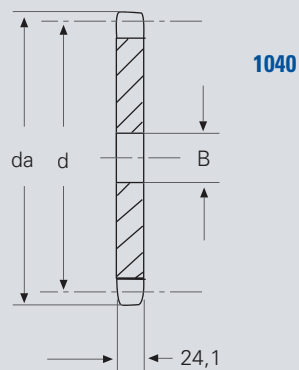
\*\*\* mit geschweisster Nabe / avec moyeu soudé / With welded hub

### Kettenradscheiben 24B-1, Stahl Disques à chaîn 24B-1, acier Chain wheel plates 24B-1, steel

Einfach, aus Stahl, passend zu Ketten  
24B-1 (1 1/2" x 1" R Ø 25.4 mm)

Simple, en acier, correspondant aux chaînes  
24B-1 (1 1/2" x 1" R Ø 25.4 mm)

Simplex, made of steel, compatible to chain  
24B-1 (1 1/2" x 1" R Ø 25.4 mm)



Bestellbeispiel  
Exemple de commande  
ordering example

|                              |   |                                                 |
|------------------------------|---|-------------------------------------------------|
| Einfach<br>Simple<br>Simplex | — | Zähnezahl<br>nombre de dents<br>number of teeth |
| 1040                         | — | 11                                              |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 10                                          | 137 | 123.29 | 20 |
| 11                                          | 148 | 135.21 | 20 |
| 12                                          | 163 | 147.21 | 20 |
| 13                                          | 175 | 159.20 | 20 |
| 14                                          | 187 | 171.22 | 20 |
| 15                                          | 199 | 183.25 | 20 |
| 16                                          | 210 | 195.29 | 25 |
| 17                                          | 222 | 207.35 | 25 |
| 18                                          | 234 | 219.41 | 25 |
| 19                                          | 247 | 231.48 | 25 |
| 20                                          | 259 | 243.55 | 25 |
| 21                                          | 271 | 255.63 | 25 |
| 22                                          | 283 | 267.72 | 25 |
| 23                                          | 295 | 279.80 | 25 |
| 24                                          | 307 | 291.90 | 25 |
| 25                                          | 319 | 309.99 | 25 |
| 26                                          | 331 | 316.09 | 30 |
| 27                                          | 343 | 328.19 | 30 |
| 28                                          | 355 | 340.29 | 30 |
| 29                                          | 367 | 352.39 | 30 |
| 30                                          | 380 | 364.50 | 30 |
| 32                                          | 404 | 388.69 | 30 |
| 33                                          | 416 | 400.82 | 30 |
| 35                                          | 440 | 425.04 | 30 |
| 38                                          | 476 | 461.37 | 30 |
| 40                                          | 501 | 485.60 | 30 |
| 42                                          | 525 | 509.83 | 30 |
| 45                                          | 561 | 546.19 | 30 |
| 48                                          | 597 | 582.54 | 30 |
| 50                                          | 622 | 606.78 | 30 |

| ** Vorgebohrt / Pré alésage /<br>predrilled |     |        |    |
|---------------------------------------------|-----|--------|----|
| z *                                         | da  | d      | B  |
| 55                                          | 682 | 667.38 | 30 |
| 57                                          | 707 | 691.62 | 30 |
| 60                                          | 743 | 727.99 | 30 |
| 65                                          | 803 | 788.60 | 40 |
| 70                                          | 864 | 849.22 | 40 |
| 76                                          | 937 | 921.96 | 40 |

\* Zähnezahl / nombre de dents / Number of teeth

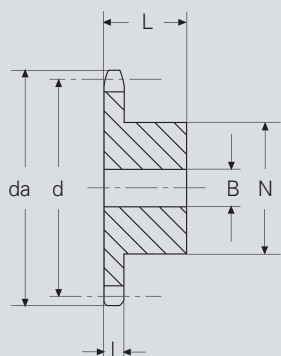
\*\* Fertige Bohrung mindestens 1 mm grösser definieren / Prévoir l'alésage fini supérieur d'au moins 1 mm /  
Finished bore, to be defined at least 1 mm bigger

### Kettenräder, rostfreier Stahl Roues à chaînes, Inoxydable Chain wheels, stainless steel

aus rostfreiem Stahl, passend zu Präzisions-  
Rollenketten DIN 8187

en acier inoxydable, correspondant aux chaînes à  
rouleaux DIN 8187

Made of stainless steel, compatible  
to precision roller chain DIN 8187



**Nicht mit Kette Delta Titanium® oder Delta Verte® verwenden!**  
**Ne pas utiliser avec les chaînes Delta Titanium® ou Delta Verte®!**  
**Not to be used with chain type Delta Titanium® or Delta Verte®!**

| Ketten/ Chaînes<br>/ Chain type                |                                                |           |       |        |       |      |    |      |      |
|------------------------------------------------|------------------------------------------------|-----------|-------|--------|-------|------|----|------|------|
| ISO/DIN No.                                    |                                                | z *       | da    | d      | N     | B-H8 | L  | l    |      |
| $\frac{3}{8}'' \times \frac{7}{32}''$<br>06B-1 | X 2106-13                                      | 13        | 43.5  | 39.80  | 28    | 10   | 25 | 5.3  |      |
|                                                | X 2106-15                                      | 15        | 49.5  | 45.81  | 34    | 10   | 25 | 5.3  |      |
|                                                | X 2106-16                                      | 16        | 52.5  | 48.82  | 37    | 10   | 28 | 5.3  |      |
|                                                | X 2106-17                                      | 17        | 55.5  | 51.83  | 40    | 10   | 28 | 5.3  |      |
|                                                | X 2106-18                                      | 18        | 58.6  | 54.85  | 43    | 10   | 28 | 5.3  |      |
|                                                | X 2106-19                                      | 19        | 61.6  | 57.87  | 45    | 10   | 28 | 5.3  |      |
|                                                | X 2106-21                                      | 21        | 67.6  | 63.91  | 48    | 12   | 28 | 5.3  |      |
|                                                | X 2106-23                                      | 23        | 73.7  | 69.95  | 52    | 12   | 28 | 5.3  |      |
|                                                | X 2106-25                                      | 25        | 79.7  | 76.00  | 57    | 12   | 28 | 5.3  |      |
|                                                | $\frac{1}{2}'' \times \frac{5}{16}''$<br>08B-1 | X 2108-13 | 13    | 58.0   | 53.06 | 37   | 10 | 28   | 7.2  |
| X 2108-15                                      |                                                | 15        | 65.9  | 61.09  | 45    | 10   | 28 | 7.2  |      |
| X 2108-16                                      |                                                | 16        | 69.9  | 65.10  | 50    | 12   | 28 | 7.2  |      |
| X 2108-17                                      |                                                | 17        | 74.0  | 69.11  | 52    | 12   | 28 | 7.2  |      |
| X 2108-18                                      |                                                | 18        | 78.0  | 73.14  | 56    | 12   | 28 | 7.2  |      |
| X 2108-19                                      |                                                | 19        | 82.0  | 77.16  | 60    | 12   | 28 | 7.2  |      |
| X 2108-20                                      |                                                | 20        | 86.0  | 81.19  | 64    | 12   | 28 | 7.2  |      |
| X 2108-21                                      |                                                | 21        | 90.1  | 85.22  | 68    | 14   | 28 | 7.2  |      |
| X 2108-23                                      |                                                | 23        | 98.1  | 93.27  | 70    | 14   | 28 | 7.2  |      |
| X 2108-25                                      |                                                | 25        | 107.0 | 101.33 | 70    | 14   | 28 | 7.2  |      |
| $\frac{5}{8}'' \times \frac{3}{8}''$<br>10B-1  | X 2110-13                                      | 13        | 73.0  | 66.34  | 47    | 12   | 30 | 9.1  |      |
|                                                | X 2110-15                                      | 15        | 83.2  | 76.34  | 57    | 12   | 30 | 9.1  |      |
|                                                | X 2110-17                                      | 17        | 93.3  | 86.39  | 60    | 12   | 30 | 9.1  |      |
|                                                | X 2110-19                                      | 19        | 103.3 | 96.45  | 70    | 14   | 30 | 9.1  |      |
|                                                | X 2110-21                                      | 21        | 113.4 | 106.52 | 80    | 16   | 30 | 9.1  |      |
|                                                | X 2110-23                                      | 23        | 123.4 | 116.58 | 80    | 16   | 30 | 9.1  |      |
|                                                | X 2110-25                                      | 25        | 134.0 | 126.66 | 80    | 16   | 30 | 9.1  |      |
|                                                | X 2110-30                                      | 30        | 158.8 | 151.87 | 90    | 20   | 35 | 9.1  |      |
|                                                | $\frac{3}{4}'' \times \frac{7}{16}''$<br>12B-1 | X 2112-13 | 13    | 87.8   | 79.59 | 58   | 16 | 35   | 11.1 |
|                                                |                                                | X 2112-15 | 15    | 99.9   | 91.63 | 70   | 16 | 35   | 11.1 |
| X 2112-17                                      |                                                | 17        | 111.5 | 103.67 | 80    | 16   | 35 | 11.1 |      |
| X 2112-19                                      |                                                | 19        | 124.2 | 115.75 | 80    | 16   | 35 | 11.1 |      |
| X 2112-21                                      |                                                | 21        | 136.0 | 127.82 | 90    | 20   | 40 | 11.1 |      |
| X 2112-23                                      |                                                | 23        | 149.0 | 139.90 | 90    | 20   | 40 | 11.1 |      |
|                                                | X 2112-25                                      | 25        | 160.0 | 152.00 | 90    | 20   | 40 | 11.1 |      |

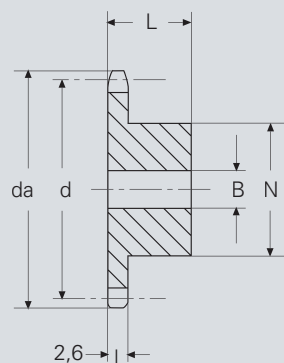
\* Zähnezahl / nombre de dents / Number of teeth

## Kettenradscheiben, Kunststoff gespritzt Roues à chaînes, plastique par injection Chain wheels, plastic injection moulded

aus Kunststoff gespritzt, passend zu  
Präzisions-Rollenketten DIN 8187

en plastique moulée par injection, correspondant  
aux chaînes à rouleaux DIN 8187

Made of plastic injection moulded,  
compatible to precision roller chain DIN 8187



Die Bohrungen der Kunststoffräder werden mit Reibahlen H9 bearbeitet. Materialbedingt kann es zu Verkleinerungen des Durchmessers der Bohrung von 0.02 bis 0.04 mm kommen (Temperatur, Luftfeuchtigkeit)

Les alésages de roues en plastique sont réalisés avec des alésoirs H9. Lié à leur matière le diamètre des alésages de ces pièces peuvent rétrécir de 0.02 à 0.04 mm (température et humidité)

The bores of plastic wheels are machined with reamers H9. Material-dependent it may occur, that a diminution in the diameter of the bore from 0.02 to 0.04 mm (temperature, humidity) is possible

| Ketten/ Chaînes / Chain type<br>ISO/ DIN NO.                                                |           | z * | da    | d      | N  | B-H9 | L    | I   |
|---------------------------------------------------------------------------------------------|-----------|-----|-------|--------|----|------|------|-----|
| Ketten / Chaînes / Chain type<br>04-1 (6×2,8 mm R ø 4 mm)                                   | C 2104-13 | 13  | 27.5  | 25.07  | 18 | 8    | 10.0 | 2.6 |
|                                                                                             | C 2104-15 | 15  | 31.0  | 28.86  | 21 | 8    | 10.0 | 2.6 |
|                                                                                             | C 2104-17 | 17  | 35.0  | 32.65  | 24 | 8    | 13.0 | 2.6 |
|                                                                                             | C 2104-19 | 19  | 39.0  | 36.45  | 24 | 8    | 13.0 | 2.6 |
|                                                                                             | C 2104-21 | 21  | 42.5  | 40.26  | 28 | 10   | 13.0 | 2.6 |
|                                                                                             | C 2104-23 | 23  | 46.5  | 44.06  | 28 | 10   | 13.0 | 2.6 |
|                                                                                             | C 2104-25 | 25  | 50.0  | 47.87  | 28 | 10   | 13.0 | 2.6 |
| Ketten / Chaînes / Chain type<br>05B-1 (8×3 mm R ø 5 mm)                                    | C 2105-13 | 13  | 36.5  | 33.42  | 24 | 8    | 13.0 | 2.8 |
|                                                                                             | C 2105-15 | 15  | 41.5  | 38.48  | 24 | 8    | 13.0 | 2.8 |
|                                                                                             | C 2105-17 | 17  | 46.5  | 43.53  | 28 | 10   | 14.0 | 2.8 |
|                                                                                             | C 2105-19 | 19  | 52.0  | 48.61  | 28 | 10   | 14.0 | 2.8 |
|                                                                                             | C 2105-21 | 21  | 57.0  | 53.68  | 28 | 10   | 14.0 | 2.8 |
|                                                                                             | C 2105-23 | 23  | 62.5  | 58.75  | 28 | 10   | 14.0 | 2.8 |
| Ketten / Chaînes / Chain type<br>06B-1 ( $\frac{3}{8}'' \times \frac{7}{32}''$ R ø 6,35 mm) | C 2106-13 | 13  | 43.0  | 39.79  | 24 | 8    | 16.0 | 5.3 |
|                                                                                             | C 2106-15 | 15  | 49.0  | 45.81  | 24 | 8    | 16.0 | 5.3 |
|                                                                                             | C 2106-17 | 17  | 55.5  | 51.83  | 28 | 10   | 16.0 | 5.3 |
|                                                                                             | C 2106-19 | 19  | 61.5  | 57.87  | 28 | 10   | 16.0 | 5.3 |
|                                                                                             | C 2106-21 | 21  | 68.0  | 63.91  | 32 | 12   | 20.0 | 5.3 |
|                                                                                             | C 2106-23 | 23  | 74.0  | 69.95  | 32 | 12   | 20.0 | 5.3 |
| Ketten / Chaînes / Chain type<br>081 ( $\frac{1}{2}'' \times \frac{1}{8}''$ R ø 7,75 mm)    | C 2106-25 | 25  | 80.0  | 76.00  | 32 | 12   | 20.0 | 5.3 |
|                                                                                             | C 2181-13 | 13  | 58.0  | 53.06  | 24 | 8    | 16.0 | 3.0 |
|                                                                                             | C 2181-15 | 15  | 66.0  | 61.09  | 24 | 8    | 16.0 | 3.0 |
|                                                                                             | C 2181-17 | 17  | 74.0  | 69.11  | 28 | 10   | 18.0 | 3.0 |
|                                                                                             | C 2181-19 | 19  | 82.0  | 77.16  | 28 | 10   | 18.0 | 3.0 |
|                                                                                             | C 2181-21 | 21  | 90.5  | 85.22  | 32 | 12   | 20.0 | 3.0 |
| Ketten / Chaînes / Chain type<br>083 ( $\frac{1}{2}'' \times \frac{3}{16}''$ R ø 7,75 mm)   | C 2181-23 | 23  | 98.5  | 93.27  | 32 | 12   | 20.0 | 3.0 |
|                                                                                             | C 2181-25 | 25  | 107.0 | 101.33 | 32 | 12   | 20.0 | 3.0 |
|                                                                                             | C 2184-13 | 13  | 58.0  | 53.06  | 24 | 8    | 17.4 | 4.4 |
|                                                                                             | C 2184-15 | 15  | 66.0  | 61.09  | 24 | 8    | 17.4 | 4.4 |
|                                                                                             | C 2184-17 | 17  | 74.0  | 69.11  | 28 | 10   | 19.4 | 4.4 |
|                                                                                             | C 2184-19 | 19  | 82.0  | 77.16  | 28 | 10   | 19.4 | 4.4 |
| Ketten / Chaînes / Chain type<br>08B-1 ( $\frac{1}{2}'' \times \frac{5}{16}''$ R ø 8,51 mm) | C 2184-21 | 21  | 90.5  | 85.22  | 32 | 12   | 21.4 | 4.4 |
|                                                                                             | C 2184-23 | 23  | 98.5  | 93.27  | 32 | 12   | 21.4 | 4.4 |
|                                                                                             | C 2184-25 | 25  | 107.0 | 101.33 | 32 | 12   | 21.4 | 4.4 |
|                                                                                             | C 2108-13 | 13  | 58.0  | 53.06  | 28 | 10   | 20.0 | 7.2 |
|                                                                                             | C 2108-15 | 15  | 66.0  | 61.09  | 28 | 10   | 20.0 | 7.2 |
|                                                                                             | C 2108-17 | 17  | 74.0  | 69.11  | 32 | 12   | 25.0 | 7.2 |
|                                                                                             | C 2108-19 | 19  | 82.0  | 77.16  | 32 | 12   | 25.0 | 7.2 |
|                                                                                             | C 2108-21 | 21  | 90.5  | 85.22  | 36 | 16   | 25.0 | 7.2 |
|                                                                                             | C 2108-23 | 23  | 98.5  | 93.27  | 36 | 16   | 25.0 | 7.2 |
|                                                                                             | C 2108-25 | 25  | 107.5 | 101.33 | 36 | 16   | 25.0 | 7.2 |

\* Zähnezahl / nombre de dents / Number of teeth

### Kettenräder, Kunststoff mit Stahlkern Roues à chaînes, plastique avec moyeu en acier Chain wheels, plastic with steel core



#### Eigenschaften von Kunststoffrädern

- Hohe Verschleissfestigkeit bei Trockenlauf (gute Notlaufeigenschaften)
- Geräuscharmer Lauf
- Dämpfung von Schwingungen
- Korrosionsbeständigkeit
- Hohe Beständigkeit gegen Chemikalien
- Niedriges Massenträgheitsmoment durch geringes Gewicht

#### Warum Stahlkern?

- Größere Drehmomente in der Wellenverbindung möglich
- Engere Toleranzen möglich
- Gleicher Ausdehnungskoeffizient wie Welle, kein Spiel bei Temperaturschwankungen
- Kerne aus Edelstahl V2A, V4A, Alu oder Messing auf Anfrage

Dimensionen auf Anfrage.

#### Propriétés des roues en plastique

- haute résistance à l'usure en fonctionnement à sec
- fonctionnement silencieux
- amortit les vibrations
- résiste à l'oxydation
- haute résistance chimique
- par sa faible masse nécessite peu de couple moteur

#### Pourquoi le moyeu en acier?

- permet une meilleure liaison avec l'arbre et des moments de couple de rotation plus élevés
- possibilité de tolérances réduites
- même coefficient de dilatation que l'arbre pas de jeu dû aux variations de température
- moyeu en inox V2A, V4A, alu ou laiton sur demande

Dimensions sur demande.

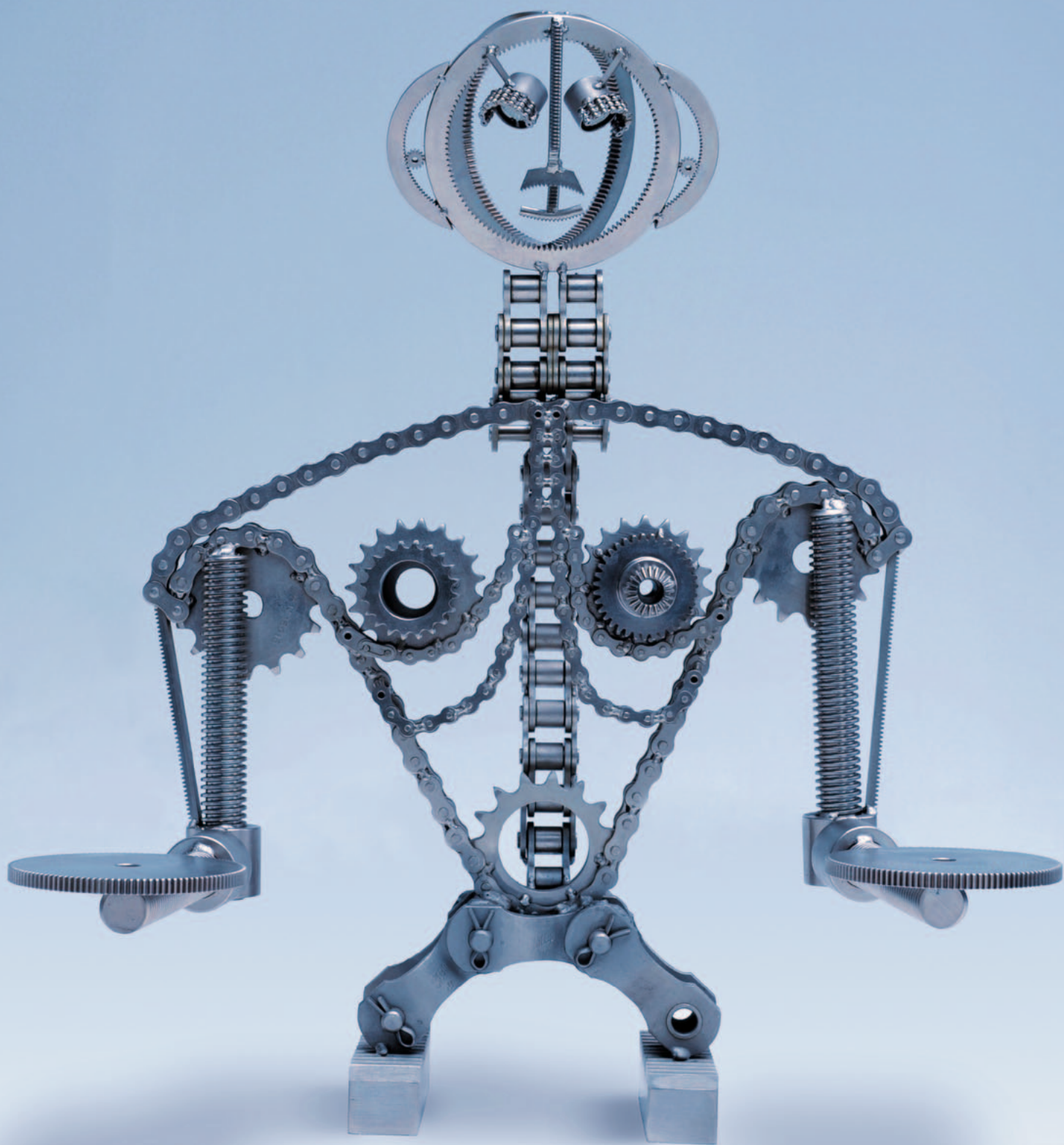
#### Properties of plastic gears

- high durability when running dry (Good dry running property)
- silent running
- buffering capacity by vibration
- Resistance to corrosion
- high resistance to chemicals
- low moment of inertia due to low weight

#### Why steel core?

- higher torque possible in hub to shaft connection
- tighter tolerances possible
- same expansion coefficient as shaft, no backlash by temperature changes
- core made of stainless steel V2A, V4A, Aluminium or Brass on request

Dimensions upon request



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