

**Partner for  
food conveying solutions**

## Homogeneous and Drive belts





## The ultimate solution for total hygiene

HP COMPACT® is a homogeneous conveyor and process belts - smooth or positive drive - assuring **total hygiene** and designed to resist the **most severe cleaning** procedures.

It goes beyond the application limits of both modular and monolithic belts, reinforced or not, commonly found in the market.

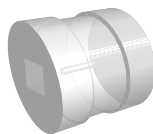
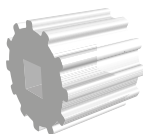
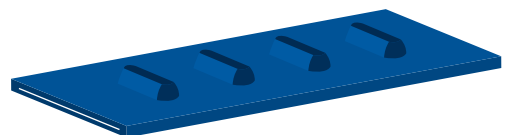
## HP COMPACT® conveying systems



**Compact belt design, reinforced traction core.**  
The HP COMPACT® belts assure the total compliance with the requisites imposed by the HACCP practice in the whole production process.



**Compact belt having a reinforced traction core and toothed profile on the running side.**  
The HP COMPACT DRIVE® belts for positive drive can be supplied with any kind of teeth and pitch, both standard and customized.



Chiorino supplies standard or customized pulleys according to Customer's needs.



## Certified Food Compliance

**REGULATION EC 1935/2004** and amendments

**REGULATION EC 2023/2006** and amendments

**REGULATION EU 10/2011** and amendments

**FDA (Food and Drug Administration)**

**USDA (United States Department of Agriculture)**

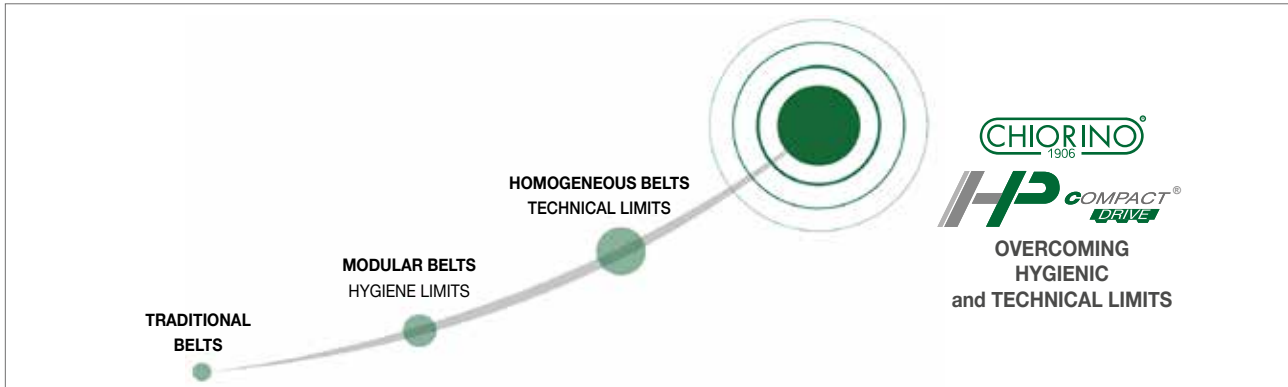
**REGULATION NSF/ANSI 3-A 14159-3-2014** and amendments

**HALAL (World Halal Authority)**



# Food belts and hygienic requirements

**HP COMPACT DRIVE®** is the answer to the most demanding requirements of Food industry in terms of **food safety** and **mechanical performances**.



## The benchmark in food processing



The Chiorino HP® conveyor and process belts are today the leading products for the food industry as far as **hygiene**, **performance** and **working life** are concerned.

The HP® belts fully support all the **HACCP practices** through the whole food manufacturing process.

### HP® SYSTEM main benefits

- ▶ Extraordinary resistance to continuous washing and sanitization processes.  
Ideal for Clean-in-Place systems
- ▶ Superior resistance to fats and oils
- ▶ Excellent resistance to low temperatures



## HP COMPACT DRIVE® main benefits

- 100% Food safety
- Superior resistance to washing and sanitizing
- Excellent resistance to fats and oils
- No deformations
- Self-tracking
- Ideal for Z-Conveyors
- Up to 2000 mm width

### Optimized cost of ownership

HP COMPACT DRIVE® belts guarantee a considerable **Time**, **Water**, **Energy** and **Maintenance saving** compared to modular and traditional homogeneous or monolithic belts.



-60%



-60%



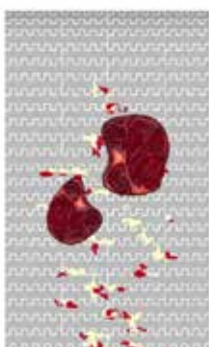
-50%



-60%

# Total food safety and water saving

## Modular belts



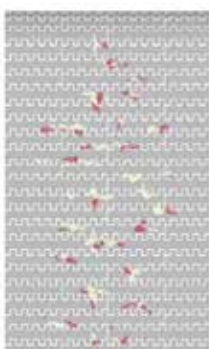
Modular belts require a high initial investment and show critical issues related to cleanability and food safety.

Chiorino HP COMPACT DRIVE® **washing is quick and easy**, assuring total hygiene and reducing downtime to a minimum.



Modular belts require an excessive water and energy consumption, still resulting in an effectively impossible sanitization.

Up to **60% water saving** compared to modular belts is one of the main competitive advantages of HP COMPACT DRIVE® belts.

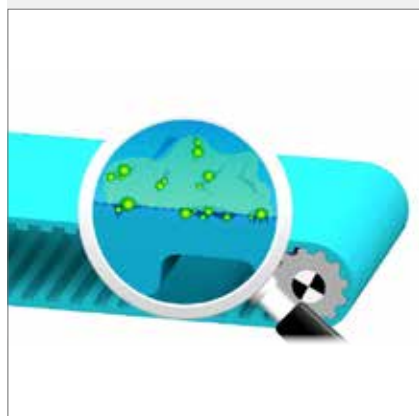
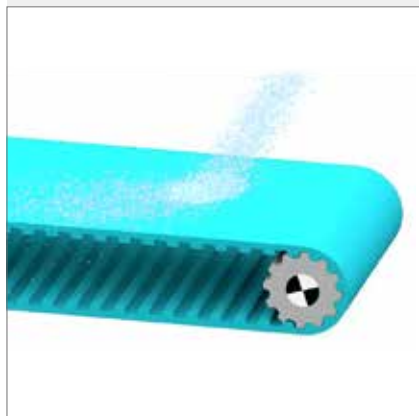


Even after long cleaning operations, foodstuff residuals remain on modular belts surface, resulting in poor hygiene.

HP COMPACT DRIVE® belts' surface is perfectly clean and safe, ready for starting further operations assuring **total food safety**.

# Excellent resistance to bacterial proliferation

## Monolithics and traditional homogeneous belts



Frequent washings affect the conveyor belts' surface that undergoes the hydrolisis attack, with heavy consequences in terms of hygiene and belts life.

The porous surface of monolithics and traditional homogeneous belts particularly suffers the hydrolisis effect.

The surface of traditional monolithic belts cracks and becomes a natural shelter for bacterial growth.

The **highly compact polyurethane** resulting from the exclusive Chiorino **HP® product system** resists hydrolisis more than any other belt with no crackings on the surface.

If bacteria are not completely removed there is a considerable risk of bacterial layer formation on the belts surface.

Thanks to the HP® closed and compact surface, bacteria are completely removed.

This makes HP COMPACT DRIVE® the **best solution for total food safety**.

# Excellent mechanical stability

## Monolithics and traditional homogeneous belts



One of the biggest issues of traditional homogeneous and monolithic belts is the poor resistance to hydrolisis.

After frequent washing processes, their polymeric material quickly ages causing wavings, deformation and finally tracking problems.

HP COMPACT DRIVE® guarantees a superior resistance to hydrolisis overcoming the technical and mechanical limits of monolithic and traditional homogeneous belts.

Monolithics and traditional homogeneous belts suffer waving and deformations and require frequent and expensive maintenance.

HP COMPACT DRIVE® is **mechanically stable, constant running and trouble free.**

# Ideal for all conveyor designs

The special **Chiorino compact reinforced traction core** assures unlimited flexible and innovative configurations, making HP COMPACT DRIVE® ideal for the use on all demanding applications such as swan neck conveyors.

## KEY FEATURES

Compact reinforced traction core



## MAIN BENEFITS

No deformations  
Cross rigidity  
Self tracking  
No elongations  
Low fitting tension

Exclusive design



No vibrations  
Ideal for Z-conveyors  
Up to 2000 mm width

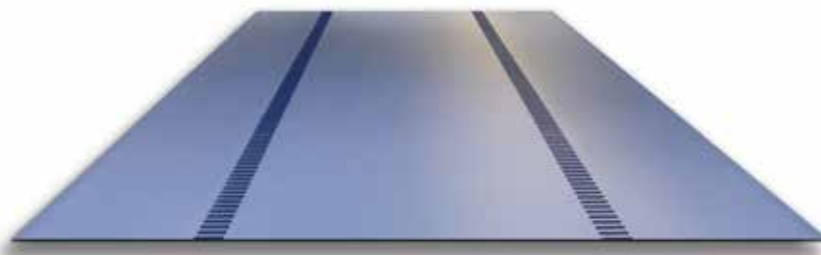


***Beyond the limits of custom solutions!***

HP COMPACT DRIVE® is produced in **2000 mm width** and no length limits for endless belts.

It can be supplied with a **double row of teeth** up to 2000 mm belts width.

HP COMPACT DRIVE® is the **only homogeneous reinforced belt** available in **2000 mm** width.



# Pitches and pulleys

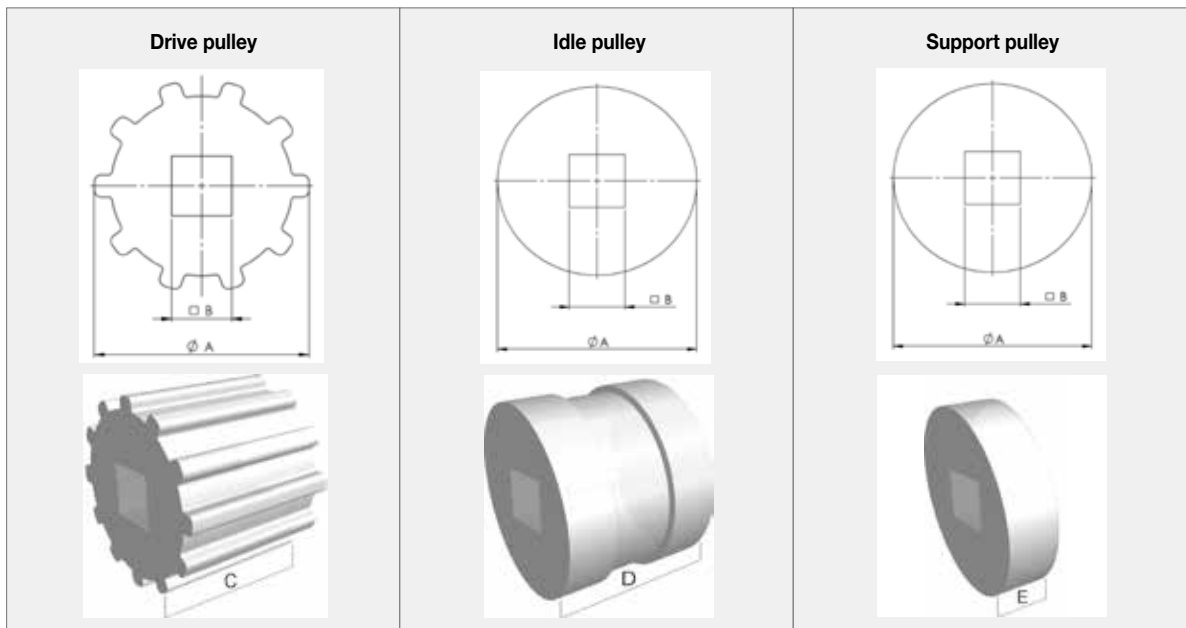
The traditional positive drive conveyor construction consists of:

- **Drive pulley**
- **Slidebed**
- **Idle pulley with tensioning device**
- **Support pulleys**

Chiorino supplies both **standard** and **customized pulleys** according to Customer's needs.



## Chiorino standard sprockets / pulleys



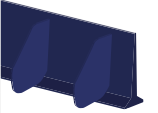
| Number of teeth | Pitch<br>mm | External Ø<br><b>A</b><br>mm | Inner square<br>$\square$<br><b>B</b><br>mm | Width<br><b>C</b><br>mm | Width<br><b>D</b><br>mm | Width<br><b>E</b><br>mm |
|-----------------|-------------|------------------------------|---------------------------------------------|-------------------------|-------------------------|-------------------------|
| 8               | 40          | 99                           | 40 x 40                                     | 80                      | 105                     | 20                      |
| 10              | 40          | 125                          | 40 x 40                                     | 80                      | 105                     | 20                      |
| 12              | 40          | 150                          | 40 x 40                                     | 80                      | 105                     | 20                      |
| 14              | 40          | 176                          | 40 x 40                                     | 80                      | 105                     | 20                      |
| 16              | 40          | 201                          | 40 x 40                                     | 80                      | 105                     | 20                      |

On demand HP COMPACT DRIVE® belts can be supplied with customized pitches.

# Profiles and Sidewalls

| Code | Type | Dimensions<br>b x h<br>mm | Material | Hardness<br>Sh A / Sh D | Min. transversal<br>pitch<br>mm | Min. transversal<br>diameter <sup>1</sup><br>mm |
|------|------|---------------------------|----------|-------------------------|---------------------------------|-------------------------------------------------|
|------|------|---------------------------|----------|-------------------------|---------------------------------|-------------------------------------------------|

## Transversal profiles

|                                                                                   |        |                                     |          |         |         |         |    |
|-----------------------------------------------------------------------------------|--------|-------------------------------------|----------|---------|---------|---------|----|
|  | ES-543 | L20 U HP blue                       | 10 x 20  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-546 | L30 U HP blue                       | 10 x 30  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-549 | L40 U HP blue                       | 10 x 40  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-535 | L50 U HP blue                       | 10 x 50  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-538 | L80 U HP blue                       | 10 x 80  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-731 | L80 U HP blue 55D                   | 10 x 80  | TPU HP® | 55 Sh D | 40      | 40 |
|  | ES-563 | T20 U HP blue                       | 10 x 20  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-560 | T30 U HP blue                       | 10 x 30  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-557 | T40 U HP blue                       | 10 x 40  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-554 | T50 U HP blue                       | 10 x 50  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-534 | T60 U HP blue                       | 10 x 60  | TPU HP® | 70 Sh A | 40      | 40 |
|                                                                                   | ES-713 | T50 U HP blue 55D                   | 10 x 50  | TPU HP® | 55 Sh D | 40      | 40 |
|                                                                                   | ES-793 | T100 U HP blue 55MD <sup>2</sup>    | 10 x 100 | TPU HP® | 55 Sh D | 40      | 50 |
|                                                                                   | ES-785 | T120 U HP blue 55MD <sup>2</sup>    | 10 x 120 | TPU HP® | 55 Sh D | 40      | 50 |
|                                                                                   | ES-856 | T80 U HP RG blue 55MD <sup>2</sup>  | 10 x 80  | TPU HP® | 55 Sh D | 40      | 50 |
|                                                                                   | ES-855 | T100 U HP RG blue 55MD <sup>2</sup> | 10 x 100 | TPU HP® | 55 Sh D | 40      | 50 |
|  | ES-840 | TS80 U HP blue 55MD <sup>2</sup>    | 10 x 80  | TPU HP® | 55 Sh D | 200-250 | 40 |
|                                                                                   | ES-841 | TS100 U HP blue 55MD <sup>2</sup>   | 10 x 100 | TPU HP® | 55 Sh D | 200-250 | 40 |
|                                                                                   | ES-842 | TS120 U HP blue 55MD <sup>2</sup>   | 10 x 120 | TPU HP® | 55 Sh D | 200-250 | 40 |

## Sidewalls

|                                                                                     | Code   | Type                       | Dimensions  |             |              | Material | Hardness<br>Sh A | Thickness<br>mm | Minimum<br>diameter <sup>1</sup><br>mm |
|-------------------------------------------------------------------------------------|--------|----------------------------|-------------|-------------|--------------|----------|------------------|-----------------|----------------------------------------|
|                                                                                     |        |                            | Pitch<br>mm | Width<br>mm | Height<br>mm |          |                  |                 |                                        |
|  | ES-707 | C-U 10/20 HP blue          | 24          | 22          | 20           | TPU HP®  | 85               | 1.6             | 50                                     |
|                                                                                     | ES-708 | C-U 10/30 HP blue          | 24          | 22          | 30           | TPU HP®  | 85               | 1.6             | 70                                     |
|                                                                                     | ES-709 | C-U 10/40 HP blue          | 24          | 22          | 40           | TPU HP®  | 85               | 1.6             | 100                                    |
|                                                                                     | ES-710 | C-U 10/50 HP blue          | 24          | 22          | 50           | TPU HP®  | 85               | 1.6             | 120                                    |
|                                                                                     | ES-711 | C-U 20/60 HP blue          | 50          | 42          | 60           | TPU HP®  | 85               | 1.6             | 150                                    |
|                                                                                     | ES-712 | C-U 20/80 HP blue          | 50          | 42          | 80           | TPU HP®  | 85               | 1.6             | 190                                    |
|                                                                                     | ES-763 | C-U 20/40 HP Compact blue  | 40          | 42          | 40           | TPU HP®  | 85               | 2.7             | 100                                    |
|                                                                                     | ES-762 | C-U 20/50 HP Compact blue  | 40          | 42          | 50           | TPU HP®  | 85               | 2.7             | 120                                    |
|                                                                                     | ES-764 | C-U 20/60 HP Compact blue  | 40          | 42          | 60           | TPU HP®  | 85               | 2.7             | 145                                    |
|                                                                                     | ES-765 | C-U 20/80 HP Compact blue  | 40          | 42          | 80           | TPU HP®  | 85               | 2.7             | 200                                    |
|                                                                                     | ES-794 | C-U 20/100 HP Compact blue | 40          | 42          | 100          | TPU HP®  | 85               | 2.7             | 240                                    |
|                                                                                     | ES-795 | C-U 20/120 HP Compact blue | 40          | 42          | 120          | TPU HP®  | 85               | 2.7             | 290                                    |

<sup>1</sup> Minimum pulley diameters referred to environment conditions of 20°C.

<sup>2</sup> Available in 800 mm length bars.

## 

HY-FAST™ is a **unique hygienic fastener** designed by Chiorino for the **installation on site** of HP COMPACT DRIVE® food conveyor belts. Made of thermoplastic food compliant material, it does not contain any metal component.

### QUICK & EASY

Thanks to HY-FAST™ the belt can be easily replaced for the *daily cleaning procedures* then *instantly and easily* fitted on the machine.

### KEY BENEFITS

- Food safety
- High mechanical resistance
- Excellent resistance to frequent washings
- Suitable for Clean-in-Place systems
- Downtime reduction

HY-FAST™ is available only for the HP COMPACT 25 series and for belts up to a max. width of 1000 mm.



# Technical data

| Code | Type | Total thickness | Material | Driving toothed side surface texture                                              | Conveying side surface texture                                                    | Pitch | Tooth section | Tooth length | Pull for 1% elong. | Min. diameter <sup>1</sup> | Temperature resistance | Max. width | Inclined                                                                            | Swan neck                                                                           | Trough                                                                              |
|------|------|-----------------|----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|---------------|--------------|--------------------|----------------------------|------------------------|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|      |      | mm              |          |  |  | mm    | b x h<br>mm   | mm           | N/mm               | mm                         | min. °C    max. °C     | mm         |  |  |  |



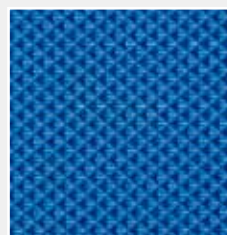
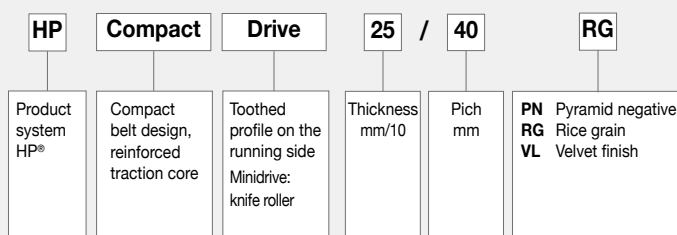
|              |                                |     |         |        |        |    |        |    |    |    |         |      |   |   |   |
|--------------|--------------------------------|-----|---------|--------|--------|----|--------|----|----|----|---------|------|---|---|---|
| NA-1359C_D13 | HP Compact Drive 20/40 blue    | 2.0 | TPU HP® | smooth | smooth | 40 | 13 x 8 | 72 | 8  | 80 | -30 +90 | 2000 |   |   | • |
| NA-1207C_D13 | HP Compact Drive 25/40 blue    | 2.5 | TPU HP® | smooth | smooth | 40 | 13 x 8 | 72 | 8  | 80 | -30 +90 | 2000 |   | • |   |
| NA-1294C_D13 | HP Compact Drive 25/40 PN blue | 2.5 | TPU HP® | smooth | PN     | 40 | 13 x 8 | 72 | 8  | 80 | -30 +90 | 2000 | • | • |   |
| NA-1328C_D13 | HP Compact Drive 25/40 RG blue | 2.5 | TPU HP® | smooth | RG     | 40 | 13 x 8 | 72 | 8  | 80 | -30 +90 | 2000 | • | • |   |
| NA-1257C_D13 | HP Compact Drive 25/40 VL blue | 2.5 | TPU HP® | smooth | VL     | 40 | 13 x 8 | 72 | 8  | 80 | -30 +90 | 2000 |   | • |   |
| NA-1307C_D13 | HP Compact Drive 40/40 blue    | 4.0 | TPU HP® | smooth | smooth | 40 | 13 x 8 | 72 | 15 | 80 | -30 +90 | 2000 |   | • |   |



| Code        | Type                  | Total thickness | Material | Driving side surface texture | Conveying side surface texture | Pull for 1% elong. | Min. diameter <sup>1</sup> | Temperature resistance | Max. width | Knife roller                                                                          | Inclined                                                                              | Swan neck                                                                             | Trough                                                                                |
|-------------|-----------------------|-----------------|----------|------------------------------|--------------------------------|--------------------|----------------------------|------------------------|------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|             |                       | mm              |          |                              |                                | N/mm               | mm                         | min. °C    max. °C     | mm         |  |  |  |  |
| NA-1366A    | HP Compact 15 blue    | 1.5             | TPU HP®  | smooth                       | smooth                         | 5                  | 25                         | -30 +110               | 2000       | •                                                                                     |                                                                                       |                                                                                       |                                                                                       |
| NA-1359A    | HP Compact 20 blue    | 2.0             | TPU HP®  | smooth                       | smooth                         | 8                  | 50                         | -30 +110               | 2000       |                                                                                       |                                                                                       |                                                                                       | •                                                                                     |
| NA-1207A    | HP Compact 25 blue    | 2.5             | TPU HP®  | smooth                       | smooth                         | 8                  | 50                         | -30 +110               | 2000       |                                                                                       |                                                                                       | •                                                                                     |                                                                                       |
| NA-1294A    | HP Compact 25 PN blue | 2.5             | TPU HP®  | smooth                       | PN                             | 8                  | 50                         | -30 +110               | 2000       |                                                                                       | •                                                                                     | •                                                                                     |                                                                                       |
| NA-1328A    | HP Compact 25 RG blue | 2.5             | TPU HP®  | smooth                       | RG                             | 8                  | 50                         | -30 +110               | 2000       |                                                                                       | •                                                                                     | •                                                                                     |                                                                                       |
| NA-1328A RG | HP Compact RG 25 blue | 2.5             | TPU HP®  | RG                           | smooth                         | 8                  | 50                         | -30 +110               | 2000       |                                                                                       |                                                                                       | •                                                                                     |                                                                                       |
| NA-1257A    | HP Compact 25 VL blue | 2.5             | TPU HP®  | smooth                       | VL                             | 8                  | 50                         | -30 +110               | 2000       |                                                                                       |                                                                                       | •                                                                                     |                                                                                       |
| NA-1307A    | HP Compact 40 blue    | 4.0             | TPU HP®  | smooth                       | smooth                         | 15                 | 80                         | -30 +110               | 2000       |                                                                                       |                                                                                       | •                                                                                     |                                                                                       |

<sup>1</sup> Minimum roller diameter is dependent on the joint recommended by Chiorino.

## EXPLANATION OF TYPE DESIGNATION



PN



RG

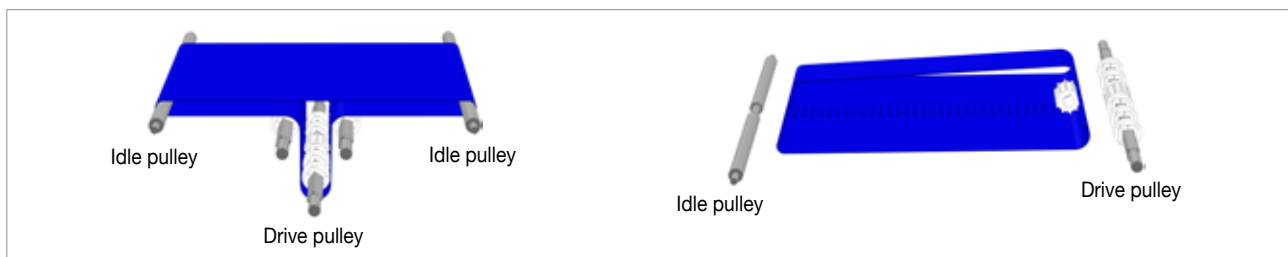
HP COMPACT MINI DRIVE® is the ultimate solution for **food positive drive belts** featuring a **reduced teeth pitch**. Ideal for running on small pulleys, it assures smooth product transfer and increased production efficiency.

## KEY FEATURES

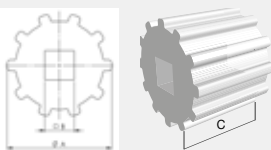
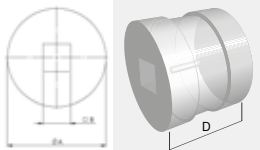
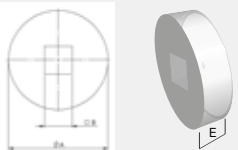
## BENEFITS

|                                                                                                                       |                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Engineered for small pulleys                                                                                          | ▶ <b>Accurate product transfer.<br/>Minimized production waste</b>                                           |
| HP COMPACT® exclusive design                                                                                          | ▶ <b>No mistracking. No misalignments.<br/>Suitable for bi-directional running.<br/>Ideal for high speed</b> |
| HP® excellent resistance to bacteria proliferation and cleaning procedures                                            | ▶ <b>Total food safety</b>                                                                                   |
| High resistance to oils, fats, abrasion                                                                               | ▶ <b>Long service life</b>                                                                                   |
| Lower tension = Highest resistance to mechanical stress (shafts and bearings saving).<br>Easy to clean = Water saving | ▶ <b>Optimized cost of ownership</b>                                                                         |

## Configuration



## Chiorino standard sprockets / pulleys

|                                                                                     |             |                                                                                      |                               |                                                                                       |                      |                      |
|-------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|----------------------|----------------------|
| Drive pulley                                                                        |             | Idle pulley                                                                          |                               | Support pulley                                                                        |                      |                      |
|  |             |  |                               |  |                      |                      |
| Number of teeth                                                                     | Pitch<br>mm | External Ø <b>A</b><br>mm                                                            | Inner square □ <b>B</b><br>mm | Width <b>C</b><br>mm                                                                  | Width <b>D</b><br>mm | Width <b>E</b><br>mm |
| 9                                                                                   | 20          | 55                                                                                   | 20 x 20                       | 80                                                                                    | 105                  | 20                   |
| 10                                                                                  | 20          | 62                                                                                   | 25 x 25                       | 80                                                                                    | 105                  | 20                   |
| 11                                                                                  | 20          | 68                                                                                   | 25 x 25                       | 80                                                                                    | 105                  | 20                   |
| 12                                                                                  | 20          | 74                                                                                   | 25 x 25                       | 80                                                                                    | 105                  | 20                   |

## Technical data

| Code        | Type                              | Total thickness<br>mm | Material | Driving toothed side surface texture<br>↑ | Conveying side surface texture<br>↓ | Pitch<br>mm | Tooth section<br>b x h<br>mm | Tooth length<br>mm | Pull for 1% elong.<br>N/mm | Min. diameter <sup>1</sup><br>mm | Temperature resistance<br>min. °C   max. °C | Max. width<br>mm | Knife roller<br> |
|-------------|-----------------------------------|-----------------------|----------|-------------------------------------------|-------------------------------------|-------------|------------------------------|--------------------|----------------------------|----------------------------------|---------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------|
| NA-1481F_D6 | HP Compact Minidrive 15/20 A blue | 1.5                   | TPU HP®  | smooth                                    | smooth                              | 20          | 6 x 4                        | 72                 | 10                         | 20                               | -30   +90                                   | 800              | •                                                                                                     |
| NA-1366F_D6 | HP Compact Minidrive 15/20 blue   | 1.5                   | TPU HP®  | smooth                                    | smooth                              | 20          | 6 x 4                        | 72                 | 5                          | 25                               | -30   +90                                   | 1200             | •                                                                                                     |

<sup>1</sup> Minimum roller diameter is dependent on the joint recommended by Chiorino.