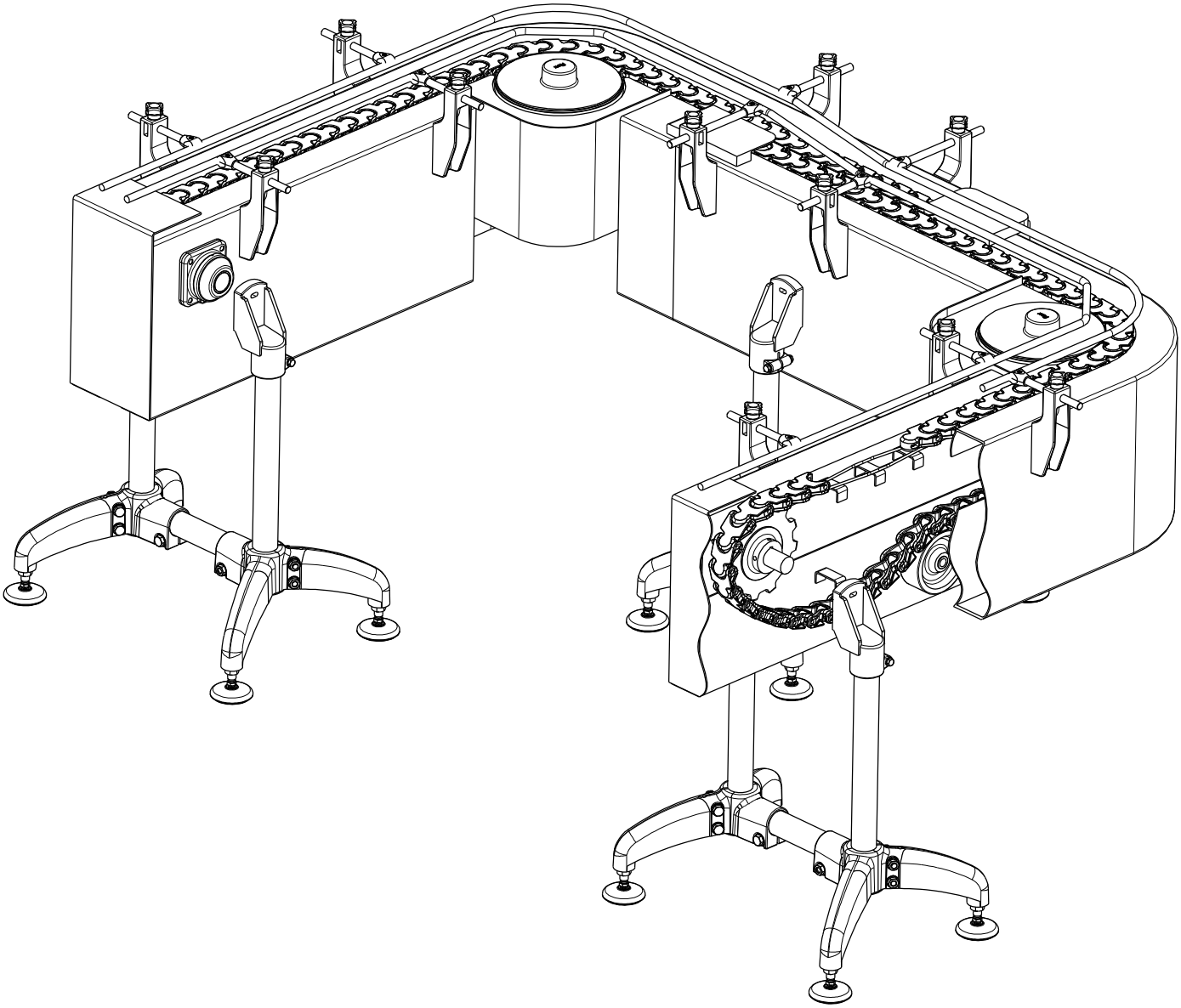
# Multiflex Chains



# CHAIN MATERIALS

For more detailed material information, see page EM - MF - 14 or the Appendix located at the end of this manual.

Materials vary per chain series; see Product Catalog to determine standard versus special materials.

## Acetal Family

### D and WD (Acetal)

⇨ Plain acetal

### MLF

⇨ Cost-effective general purpose chain material

⇨ Suitable for slower speeds

### LF and WLF (Low-Friction)

⇨ Patented blend of acetal that provides good wear resistance and long service life due to the low coefficient of friction

### HP and WHP (High Performance)

⇨ Patented blend of acetal specifically formulated for dry-running conveyors due to excellent friction characteristics

### PS (Platinum Series)

⇨ Patented blend of acetal specially formulated for high-speed conveying applications

### PSX (Platinum Series X)

⇨ High-speed conveying with little to no external lubrication

⇨ Long wear life with minimal dusting

### XLG (Low-Friction Acetal, Green)

⇨ Internally lubricated extra low-friction acetal

### XLA (Low-Friction Acetal, Gray)

⇨ Internally lubricated extra low-friction acetal

## Metal Family

### AC (Armour Clad)

⇨ Austenitic stainless steel cladding available with a variety of plastic link materials

⇨ Excellent for conveying raw castings, rough parts

## Specialty Plastics

### AS (Anti-Static)

⇨ An electrically conductive acetal formulated to reduce or eliminate nuisance static charge

⇨ **ALWAYS** contact Rexnord Application Engineering for assistance

### HCAS (High Capacity Anti-Static)

⇨ Reduces or eliminates nuisance static

⇨ High capacity acetal resin, requires 10% derate from acetal counterparts

### BIR (Black Impact-Resistant)

⇨ Specifically formulated to take constant impact

### ESD (Electrostatic Dissipative)

⇨ Polypropylene formulated for conveying sensitive products such as electronics and computer chips where controlling static charge or static decay is critical

⇨ **ALWAYS** contact Rexnord Application Engineering for assistance

### HC-ESD (High Capacity, Electrostatic Dissipative)

⇨ High capacity polypropylene formulated for conveying sensitive products such as electronics and computer chips where controlling static charge or static decay is critical

⇨ Requires 10% derate from polypropylene counterparts

⇨ **ALWAYS** contact Rexnord Application Engineering for assistance

### FTR (Black, Fryer Temperature-Resistant)

⇨ Formulated to be used in oven/fryer discharge conveyor applications such as snack chips

# CHAIN MATERIALS

### GTC (Grey Tough Composite)

- ⇨ High-strength, impact modified composite
- ⇨ High impact resistance, low strength

### USP (Ultra-Stabilized Polypropylene, Dark Green)

- ⇨ Superior resistance to chemicals used in pasteurizers, warmers and coolers
- ⇨ Remains stronger and more flexible than standard polypropylene

### BWR (Black Wear-Resistant)

- ⇨ BWR may extend chain life up to 5 times in comparison to other plastic materials in applications such as conveying rough machined parts

### WX/BWX (Abrasion-Resistant)

- ⇨ A nylon material formulated to be used in abrasive applications where chain is subjected to abrasives such as glass, sand and dirt

### P (Chemical-Resistant)

- ⇨ A polyester formulated to reduce or eliminate material degradation in applications where chemicals such as chlorine and phosphorous are present in moderate concentrations

### CR (Extreme Chemical-Resistant)

- ⇨ Fluorinated polymer that is chemically resistant to high concentrations of oxidizing agents, acids and bases

### DUV (Ultraviolet-Resistant)

- ⇨ Specially formulated acetal
- ⇨ Used for outdoor applications with direct exposure to the sun or UV radiation

### MR (Melt-Resistant)

- ⇨ A nylon material with a high melting point used to prevent hot objects (product temperature up to 375°F [190°C]) from melting the surface of the chain

### FR (Flame-Retardant)

- ⇨ Flame-retardant polyester that meets the requirements of UL Standard 94 V-0 rated combustion

### HS (Heat-Stabilized)

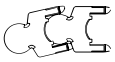
- ⇨ Nylon resin designed for environments that contain hot water spray (rinser, sterilizer and pasteurizer applications)

### BSM

- ⇨ Acetal-based resin with superior wear and cut resistance
- ⇨ Suitable for both dry and wet conditions

CAUTION Since materials vary in strength, refer to the Product Catalog (8rxCAT-en) for specific chain / material strengths when changing out materials.

Not all materials are available in all chains. Contact Rexnord Application Engineering for further assistance.



# FRICTION TABLE BETWEEN CHAIN AND PRODUCT (Fm)

| Base Material | Chain Material | Lubrication Condition | Product Material | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Aluminum | Returnable Glass Bottles** | Non-Returnable Glass Bottles | Paper | Plastic (crates, shrink) | Plastic (PET) | Steel |
| Acetal | PS | Dry | 0.18 | 0.20 | 0.12 | 0.23 | 0.18 | 0.16 | 0.18 |
| | | Water | 0.14 | 0.18 | 0.11 | NR | 0.16 | 0.15 | 0.16 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.14 | 0.14 | 0.13 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | PSX | Dry | 0.16 | 0.20 | 0.12 | 0.23 | 0.18 | 0.16 | 0.16 |
| | | Water | 0.13 | 0.18 | 0.11 | NR | 0.16 | 0.15 | 0.14 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.14 | 0.14 | 0.12 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | HP, WHP | Dry | 0.18 | 0.20 | 0.12 | 0.23 | 0.18 | 0.18 | 0.18 |
| | | Water | 0.14 | 0.18 | 0.11 | NR | 0.16 | 0.16 | 0.16 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.14 | 0.14 | 0.13 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | LF, WLF, XL, XLA, XLG | Dry | 0.20 | 0.20 | 0.15 | 0.30 | 0.20 | 0.20 | 0.25 |
| | | Water | 0.15 | 0.18 | 0.13 | NR | 0.18 | 0.18 | 0.20 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | D, WD, MLF | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.20 | 0.15 | NR | 0.20 | 0.20 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | AS, HCAS | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | NR | NR | NR | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR | NR | NR | NR |
| | | Oil | NR | NR | NR | NR | NR | NR | NR |
| | WSA, GSA, BSA | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.18 | 0.15 | NR | 0.20 | 0.20 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | WSM, BSM, SMB | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.18 | 0.15 | NR | 0.20 | 0.20 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | DUV | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.18 | 0.15 | NR | 0.20 | 0.20 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| Metal | SS, SSC | Dry | 0.34 | 0.35 | 0.33 | 0.43 | 0.31 | 0.30 | 0.38 |
| | | Water | 0.27 | 0.30 | 0.29 | NR | 0.22 | 0.21 | 0.30 |
| | | Soap & Water | 0.14 | 0.15 | 0.15 | NR | 0.15 | 0.14 | 0.15 |
| | | Oil | – | – | – | NR | – | – | – |
| | S | Dry | 0.34 | 0.35 | 0.33 | 0.43 | 0.31 | 0.30 | 0.38 |
| | | Water | NR | NR | NR | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR | NR | NR | NR |
| | | Oil | 0.10 | 0.10 | NR | NR | NR | NR | 0.10 |
| | SSB | Dry | 0.28 | 0.47 | 0.35 | 0.40 | 0.30 | 0.30 | 0.35 |
| | | Water | 0.19 | 0.31 | 0.25 | NR | 0.20 | 0.20 | 0.25 |
| | | Soap & Water | 0.12 | 0.21 | 0.15 | NR | 0.10 | 0.10 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.15 |
| Nylon | WX/BWX | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | NR | NR | NR | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR | NR | NR | NR |
| | | Oil | – | – | – | NR | – | – | – |
| | MR/FTR | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | NR | NR | NR | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR | NR | NR | NR |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | BWR | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | NR | NR | NR | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR | NR | NR | NR |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | HS | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.18 | 0.15 | NR | 0.20 | 0.20 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |

**NR denotes "not recommended"**

**Dash denotes "combination not tested"**

All values shown in this table were obtained through product testing. Actual values may be higher or lower depending on environmental conditions.

Contact Rexnord Application Engineering for more information 1.262.376.4800

# FRICTION TABLE BETWEEN CHAIN AND PRODUCT (Fm)

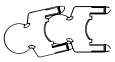
| Base Material | Chain Material | Lubrication Condition | Product Material: Aluminum | Returnable Glass Bottles** | Non-Returnable Glass Bottles | Paper | Plastic (crates, shrink) | Plastic (PET) | Steel |
|---|---|---|---|---|---|---|---|---|---|
| Polyester | TC | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.18 | 0.15 | NR | 0.21 | 0.21 | 0.23 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | 0.10 | 0.10 | 0.10 |
| | P | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.18 | 0.15 | NR | 0.21 | 0.21 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.10 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | FR | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.18 | 0.15 | NR | 0.20 | 0.20 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| Fluorinated Polymer | CR | Dry | 0.25 | 0.27 | 0.20 | 0.33 | 0.25 | 0.25 | 0.30 |
| | | Water | 0.17 | 0.18 | 0.15 | NR | 0.20 | 0.20 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| Polypropylene | HT, WHT, RHT, KHT, HTB, BHT, YP, XP, USP | Dry | 0.29 | 0.29 | 0.24 | 0.35 | 0.32 | 0.28 | 0.31 |
| | | Water | 0.19 | 0.21 | 0.18 | NR | 0.24 | 0.20 | 0.25 |
| | | Soap & Water | 0.15 | 0.14 | 0.10 | NR | 0.19 | 0.15 | 0.17 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | WHA, BHA | Dry | 0.28 | 0.29 | 0.22 | 0.35 | 0.30 | 0.30 | 0.35 |
| | | Water | 0.19 | 0.21 | 0.17 | NR | 0.25 | 0.25 | 0.25 |
| | | Soap & Water | 0.16 | 0.14 | 0.10 | NR | 0.20 | 0.20 | 0.20 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | ESD | Dry | 0.28 | 0.29 | 0.22 | 0.35 | 0.30 | 0.30 | 0.35 |
| | | Water | 0.19 | 0.21 | 0.17 | NR | 0.25 | 0.25 | 0.25 |
| | | Soap & Water | 0.16 | 0.12 | 0.10 | NR | 0.20 | 0.20 | 0.20 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | THD | Dry | 0.28 | 0.29 | 0.22 | 0.35 | 0.30 | 0.30 | 0.35 |
| | | Water | 0.19 | 0.21 | 0.17 | NR | 0.25 | 0.25 | 0.25 |
| | | Soap & Water | 0.16 | 0.14 | 0.10 | NR | 0.20 | 0.20 | 0.20 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | HUV | Dry | 0.28 | 0.29 | 0.22 | 0.35 | 0.30 | 0.30 | 0.35 |
| | | Water | 0.19 | 0.21 | 0.17 | NR | 0.25 | 0.25 | 0.25 |
| | | Soap & Water | 0.16 | 0.14 | 0.10 | NR | 0.20 | 0.20 | 0.20 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | UHS, YPR | Dry | 0.30 | 0.29 | 0.25 | 0.35 | 0.32 | 0.30 | 0.35 |
| | | Water | 0.19 | 0.21 | 0.19 | NR | 0.24 | 0.25 | 0.25 |
| | | Soap & Water | 0.16 | 0.14 | 0.10 | NR | 0.19 | 0.20 | 0.20 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| Polyethylene | WLT, BLT, LT | Dry | 0.22 | 0.24 | 0.18 | 0.30 | 0.22 | 0.22 | 0.28 |
| | | Water | 0.17 | 0.17 | 0.14 | NR | 0.18 | 0.18 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | WLA, BLA | Dry | 0.22 | 0.24 | 0.18 | 0.30 | 0.22 | 0.22 | 0.28 |
| | | Water | 0.17 | 0.17 | 0.14 | NR | 0.19 | 0.19 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.25 | 0.25 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | GLD, RLD | Dry | 0.22 | 0.24 | 0.18 | 0.30 | 0.22 | 0.22 | 0.28 |
| | | Water | 0.17 | 0.17 | 0.14 | NR | 0.18 | 0.18 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.15 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | LUV | Dry | 0.22 | 0.24 | 0.28 | 0.30 | 0.22 | 0.22 | 0.28 |
| | | Water | 0.17 | 0.17 | 0.14 | NR | 0.18 | 0.18 | 0.22 |
| | | Soap & Water | 0.12 | 0.14 | 0.10 | NR | 0.15 | 0.15 | 0.10 |
| | | Oil | – | – | – | NR | – | – | 0.10 |
| | All RubberTop Products | Dry | – | – | – | 0.87*** | 0.85*** | 0.85*** | – |

** Friction of returnable bottles will depend on the quality of the glass, the amount of roughed up surface, etc.

*** It is not recommended to accumulate on RubberTop products; however, these values can be utilized when determining brake belt or "hold back" calculations.

**NR denotes "not recommended"**

**Dash denotes "combination not tested"**



# FRICTION TABLE BETWEEN CHAIN AND WEARSTRIP (Fw)

| Base Material | Chain Material | | Wearstrip Material | | | |
|---|---|---|---|---|---|---|
| | Chain Material | Lubrication Condition | Steel and Stainless Steel | UHMWPE | Nylatron | ULF |
| Acetal | PS | Dry | 0.22 | 0.18 | 0.18 | 0.12 |
| | | Water | 0.20 | 0.16 | 0.16 | 0.11 |
| | | Soap & Water | 0.15 | 0.14 | 0.14 | 0.11 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | PSX | Dry | 0.22 | 0.18 | 0.18 | 0.12 |
| | | Water | 0.20 | 0.16 | 0.16 | 0.11 |
| | | Soap & Water | 0.15 | 0.14 | 0.14 | 0.11 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | HP, WHP | Dry | 0.22 | 0.18 | 0.18 | 0.14 |
| | | Water | 0.20 | 0.16 | 0.16 | 0.12 |
| | | Soap & Water | 0.15 | 0.14 | 0.14 | 0.11 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | LF, WLF, XL, XLA, XLG | Dry | 0.25 | 0.20 | 0.20 | 0.16 |
| | | Water | 0.20 | 0.18 | 0.18 | 0.14 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.13 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | D, WD, MLF | Dry | 0.30 | 0.25 | 0.25 | 0.20 |
| | | Water | 0.23 | 0.21 | 0.21 | 0.18 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | AS, HCAS, HC-ESD | Dry | 0.30 | 0.25 | 0.25 | 0.20 |
| | | Water | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR |
| | | Oil | NR | 0.10 | 0.10 | 0.10 |
| | WSA, GSA, BSA | Dry | 0.30 | 0.25 | 0.25 | 0.20 |
| | | Water | 0.23 | 0.21 | 0.21 | 0.18 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | WSM, BSM, SMB, BRSM, BYSM, SYMB, SRMB | Dry | 0.30 | 0.25 | 0.25 | 0.20 |
| | | Water | 0.23 | 0.21 | 0.21 | 0.18 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | DUV | Dry | 0.30 | 0.25 | 0.25 | 0.20 |
| | | Water | 0.23 | 0.21 | 0.21 | 0.18 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| Metal | SS, SSC | Dry | 0.40 | 0.30 | 0.30 | 0.30 |
| | | Water | 0.35 | 0.22 | 0.22 | 0.22 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.15 | 0.10 | 0.10 | 0.10 |
| | S | Dry | 0.40 | 0.30 | 0.30 | 0.30 |
| | | Water | NR | NR | NR | 0.22 |
| | | Soap & Water | NR | NR | NR | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | SSB | Dry | 0.50 | 0.40 | 0.40 | 0.40 |
| | | Water | 0.40 | 0.30 | 0.30 | 0.30 |
| | | Soap & Water | 0.20 | 0.20 | 0.20 | 0.20 |
| | | Oil | 0.20 | 0.10 | 0.10 | 0.10 |
| Nylon | WX, FR-PA | Dry | 0.30 | 0.25 | 0.25 | 0.22 |
| | | Water | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR |
| | | Oil | NR | NR | NR | NR |
| | MR, FTR | Dry | 0.30 | 0.28 | 0.28 | 0.25 |
| | | Water | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | BIR, BWR | Dry | 0.28 | 0.22 | 0.22 | 0.20 |
| | | Water | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | HS | Dry | 0.30 | 0.28 | 0.28 | 0.25 |
| | | Water | 0.25 | 0.23 | 0.23 | 0.22 |
| | | Soap & Water | 0.18 | 0.18 | 0.18 | 0.18 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | FR-ESD | Dry | 0.30 | 0.25 | 0.25 | 0.22 |
| | | Water | NR | NR | NR | NR |
| | | Soap & Water | NR | NR | NR | NR |
| | | Oil | NR | 0.10 | 0.10 | 0.10 |

**NR denotes "not recommended"**
**Dash denotes "combination not tested"**

Contact Rexnord Application Engineering for more information 1.262.376.4800

# FRICTION TABLE BETWEEN CHAIN AND WEARSTRIP (Fw)

| Base Material | Chain Material | Lubrication Condition | Wearstrip Material | | | |
|---|---|---|---|---|---|---|
| | Chain Material | | Steel and Stainless Steel | UHMWPE | Nylatron | ULF |
| Polyester | GTC | Dry | 0.30 | 0.25 | 0.25 | 0.22 |
| | | Water | 0.23 | 0.21 | 0.21 | 0.20 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | P | Dry | 0.30 | 0.25 | 0.25 | 0.22 |
| | | Water | 0.23 | 0.21 | 0.21 | 0.20 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | FR | Dry | 0.30 | 0.25 | 0.25 | 0.22 |
| | | Water | 0.23 | 0.21 | 0.21 | 0.20 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| Fluorinated Polymer | CR | Dry | 0.30 | 0.25 | 0.25 | 0.22 |
| | | Water | 0.23 | 0.21 | 0.21 | 0.20 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.15 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| Polypropylene | HT, WHT, RHT, KHT, HTB, BHT, YP, XP, USP | Dry | 0.35 | 0.30 | 0.30 | 0.26 |
| | | Water | 0.30 | 0.25 | 0.25 | 0.22 |
| | | Soap & Water | 0.25 | 0.20 | 0.20 | 0.19 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | WHA, BHA | Dry | 0.35 | 0.30 | 0.30 | 0.26 |
| | | Water | 0.25 | 0.25 | 0.25 | 0.22 |
| | | Soap & Water | 0.20 | 0.20 | 0.20 | 0.19 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | ESD | Dry | 0.35 | 0.30 | 0.30 | 0.26 |
| | | Water | 0.25 | 0.25 | 0.25 | 0.22 |
| | | Soap & Water | 0.20 | 0.20 | 0.20 | 0.19 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | THD | Dry | 0.35 | 0.30 | 0.30 | 0.26 |
| | | Water | 0.25 | 0.25 | 0.25 | 0.22 |
| | | Soap & Water | 0.20 | 0.20 | 0.20 | 0.19 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | HUV | Dry | 0.35 | 0.30 | 0.30 | 0.26 |
| | | Water | 0.24 | 0.16 | 0.16 | 0.22 |
| | | Soap & Water | 0.20 | 0.20 | 0.20 | 0.19 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | UHS, YPR | Dry | 0.35 | 0.30 | 0.30 | 0.26 |
| | | Water | 0.30 | 0.25 | 0.25 | 0.22 |
| | | Soap & Water | 0.25 | 0.20 | 0.20 | 0.19 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| Polyethylene | WLT, BLT, LT | Dry | 0.28 | 0.23 | 0.23 | 0.21 |
| | | Water | 0.22 | 0.20 | 0.20 | 0.19 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.14 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | WLA, BLA | Dry | 0.28 | 0.23 | 0.23 | 0.21 |
| | | Water | 0.22 | 0.20 | 0.20 | 0.19 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.14 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | GLD, RLD | Dry | 0.28 | 0.23 | 0.23 | 0.21 |
| | | Water | 0.22 | 0.20 | 0.20 | 0.19 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.14 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |
| | LUV | Dry | 0.28 | 0.23 | 0.23 | 0.21 |
| | | Water | 0.22 | 0.20 | 0.20 | 0.19 |
| | | Soap & Water | 0.15 | 0.15 | 0.15 | 0.14 |
| | | Oil | 0.10 | 0.10 | 0.10 | 0.10 |

**NR denotes "not recommended"**
**Dash denotes "combination not tested"**

# SPROCKET AND IDLER WHEEL DESIGNATIONS

Rexnord has developed a variety of sprocket and idler materials for various and unique applications. Sprockets are available in plastic and metallic varieties.

## Plastic

### Acetal (N)

- Good corrosion- and wear-resistant properties
- One-piece sprocket
- Temperature Range: -40° to +180°F (-40° to +82°C)

### LF Acetal (LF)

- Available in select idler wheel styles only
- Self-lubricating
- Temperature Range: -40° to +180°F (-40° to +82°C)

### KU and KUS (Machined Plastic)

- KU and KUS do not designate material
- KU designates solid (one-piece) design and KUS designates a split (two-piece) design
- Sprockets machined in a variety of plastic materials
- Flush side for ease in cleaning
- Sprockets come in a wide variety of pitch diameters and bore sizes

## Metallic

### Semi-Steel (Cast Iron)

- Used in non-corrosive, abrasive environments such as broken glass, metal chips
- One-piece sprocket
- Temperature Range: -40 to +350°F (-40° to +177°C)

# WEARSTRIP MATERIALS

Proper chain and wearstrip selection will provide optimum life. Since a function of the wearstrip is to lower friction and to reduce wear, it is recommended to give careful consideration when selecting the material.

The following general guidelines will help in selecting the proper material for your application:

## Plastic

### Acetal

- Not recommended for use with acetal chains; it is best not to run identical plastics together

### Nylatron (Nylon with Moly Filler)

- Recommended for dry applications due to low wear and low friction
- Especially suited for dry operation on thermoplastic side-flexing chain corners due to its high PV (Pressure-Velocity) rating
- Typically not recommended in wet applications because it will absorb moisture and expand (if used in wet applications, allow clearance for expansion and movement of fasteners)
- Typically only used for curves

## Metal

### Aluminum

- **NOT RECOMMENDED** due to poor wear resistance

### Bronze and Brass

- Sometimes used with stainless steel chains
- Typically used for non-sparking and anti-static conditions
- For bronze — recommended one-half hard temper (Rb 58)
- For brass — recommended one-half hard (Rb 70 Min) to full hard (Rb 82) temper

### Steel

- Recommended for non-corrosive, abrasive or high-temperature applications
- Abrasive particles are less likely to imbed in metal wearstrips in comparison to plastic
- A cold-rolled plain carbon steel is recommended
- Heat treated grades — hardened to 25 to 30 Rc is recommended

### Stainless Steel

- Recommended for corrosive, abrasive or high-temperature applications
- Abrasive particles are less likely to imbed in metal wearstrips in comparison to plastic
- A cold-rolled austenitic grade is recommended which offers the best corrosion resistant properties
- Recommended one-quarter hard temper (25 to 35 Rc) with any chain material, especially with thermoplastic
- Softer annealed grades of austenitic are **NOT RECOMMENDED**. Adverse interaction between the chain material and the soft stainless steel might develop. When this happens, the resulting wear debris consists almost entirely of finely divided stainless steel particles, nearly black in color, similar to molydisulfide or graphite. The wear of the stainless steel might be rapid while the thermoplastic chain by contrast exhibits only slight wear.
- Martensitic stainless steel can also be used when heat-treated (25 to 35 Rc); however, it is not as corrosion-resistant as austenitic
  - Hardness is more critical than grade for better wear resistance

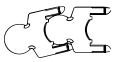
## Specialty

### Teflon

- Recommended only for very low-speed/low-load applications

### Lubricant-Impregnated Wood

- Commonly used in dry abrasive applications (i.e. glass, paper)
- Not recommended in wet applications



# WEARSTRIP MATERIALS

## UHMWPE (Ultra High Molecular Weight Polyethylene)

- ⇨ Recommended for dry or wet applications on straight or side-flexing conveyors
- ⇨ Not recommended for abrasive conditions where particles may imbed in the surface and wear the chain
- ⇨ Provides lower coefficient of friction than metals
- ⇨ Not affected by moisture and more resistant to chemicals than nylon
- ⇨ UHMWPE materials can be supplied with various fillers:
  - Ceramic/glass
  - Conductive
  - Oil/wax

## ULF (Ultra Low-Friction)

- ⇨ UHMWPE with self-lubricating additive package
- ⇨ Consistent low friction
- ⇨ Suitable for high-speed conveying where minimal or no external lubrication is present
- ⇨ Improved PV (Pressure-Velocity) properties in comparison to other curve materials


Wearstrip surface finish is a critical aspect for overall chain life. Recommended wearstrip surface finish values are:

| | |
|---|---|
| Metal: | 32 µ-in Ra (0.8 µ-m Ra) |
| Nylatron: | 63 µ-in Ra (1.6 µ-m Ra) |
| UHMWPE: | 125 µ-in Ra (3.2 µ-m Ra) |

# LUBRICATION

Lubrication is recommended whenever the application permits. It not only reduces friction, thereby reducing chain tension, but also greatly improves the wear life of the chain and wearstrips. Lubrication offers a constant cleaning effect of both the chain and wearstrip and can also reduce static.

## General Recommendations

- ⇨ Lubrication should contact both the chain and wearstrip.
- ⇨ When lubricating side-flexing TableTop chains, the lubricant must be applied at the entrance of the inside corner track. Metal side-flexing chains should **ALWAYS** be lubricated in the corners.
- ⇨ Depending upon the application, lubrication requirements may vary. Lubricant quality and lubrication frequency can have a great effect on the longevity of the chain. For most common applications, any ISO 68 grade lubricant is satisfactory. For applications with special considerations such as high temperature, chemical compatibility, FDA requirements, please contact your lubrication supplier.

## General Types of Lubricants

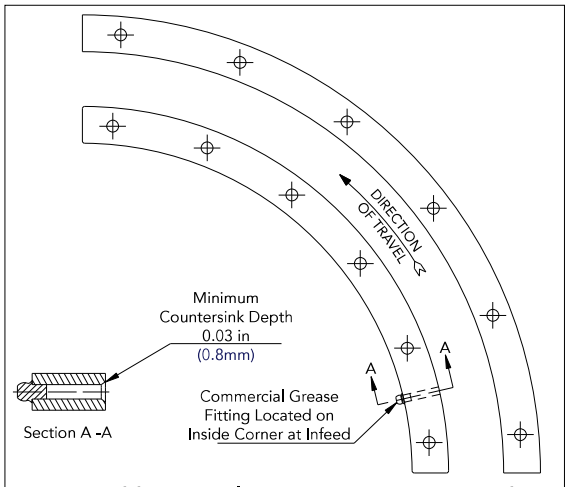
- ⇨ Water — Only utilize with corrosion-resistant materials. Can be used as a general lubricant; however, it is not as effective as other types due to friction and chain-cleaning properties.
- ⇨ Water soluble lubricants and soaps — Only utilize with corrosion-resistant materials. These are excellent lubricants which also help clean the chain.
- ⇨ Oil base lubricants — These are vegetable, mineral oils or grease which offer high lubricity. Can be used with plastic or metal materials. Recommended to be used on all metal chains whenever practical. Food grade oils are available.

To eliminate or reduce lubrication, contact Rexnord Application Engineering to conduct a run-dry survey. 1.262.376.4800

For more information on lubrication types, compatibility, methods, contact a lubricant manufacturer.

## Dry Film Lubricants

- ⇨ A dry lubricant system has many of the same benefits of a run-dry conveyor with the added benefit of a lower coefficient of friction. A dry lubricant is applied by an automatic system with dosing units that put very little lubricant on select areas of the conveyors. The lubricant can be water- or oil-based with Teflon, silicone or solid micro-particles. The preferred lubricant is an oil and water emulsion. The most critical part of the process is how the lubricant is applied on the chain. This is typically accomplished with the use of brushes, shoes or spray nozzles. The benefit of spray nozzles is the absence of contact with the chain, eliminating the possibility of trapped dirt or debris. The lubricant can also be applied to the inside of a curve for side-flexing conveyors. There are many dry lubricant products on the market which have been specifically formulated for either plastic or metal chains and container types.
- ⇨ While dry lubricants offer many advantages, conveyor cleanliness considerations should be taken into account since dry lubes do not provide a continuous cleaning process like traditional water and soap lubrication.




**Method of furnishing lubricant to chain thrust surface**

## Selective Lubrication

- ⇨ In some applications, the presence of a lubricant cannot be tolerated. For these applications, it is recommended to utilize chains made of PSX, HP or PS acetal material with Nylatron corners, which offers the lowest coefficient of friction.

# LUBRICATION - OTHER CONSIDERATIONS

## Cleaning

In many applications, rapid build-up of grease, dirt, grit, sand, spilled syrup and beverage can occur. These result in:

1. Soiling and damage to the conveyed product
2. Increased work demands for the chain and motor
3. Accelerated sprocket tooth wear
4. Conveyor pulsation and wear
5. Excessive chain wear on the flight and in the joint areas
6. Rapid wear of the wear strips.

Frequent cleaning of the chain and conveyor frame is advised. Such agents as steam, warm water and soap are commonly used. Many times combined "cleaner/lubricants" are applied continuously. Strong caustic agents used with metal chains should not be used with plastic chains. Always rinse cleaning agents completely off of chain and conveyor frame. When excessive amounts of syrup or other liquids, broken glass or debris accumulate, cleaning will be required on a regular basis to remove these undesirable materials. It is advisable to have operating personnel keep brushes and cleaning solutions nearby to remove broken glass and excessive spillage.

CAUTION

All cleaners and lubricants must be compatible with chain and conveyor materials. See page EM - TT - 15 or contact Rexnord.

## Inspection

In the course of conveyor operation, periodic inspection of the chain, sprockets and system is required to detect faults and make repairs before serious damage occurs. The important thing is to set up a regular inspection and maintenance schedule.

### Checklist

1. Look for unusual wear patterns on the chain.
2. Check for excessive gap between flights due to jam-up or overload.
3. Pulsating, jerky chain operation indicates poor lubrication or a conveyor obstruction.
4. Check deadplate and turntable clearance.
5. Examine sprockets for signs of excessive wear.
6. Examine sprockets for signs of dirt buildup in tooth pockets.
7. Check for sprocket guide ring wear and possible chain misalignment.
8. Check the ways and wear strips for excessive wear.
9. Inspect lubrication system for proper operation.
10. Check the inside curves and the supporting conveyor frame for excess heat buildup which may indicate an obstruction in the curve or a high-friction area.
11. If return support rollers are used, check to ensure rollers are free-turning.

## Repair and Replacement

Any malfunctions found during an inspection usually stem from one or more of the following conditions:

1. Severe overloads, jam-ups or wedging of broken glass or crowns.
2. Severe back-flexing of chain on the return carrying ways.
3. Poor lubrication or no lubrication.
4. Interference and obstruction.
5. Worn sprockets.
6. Poor conveyor design.
7. Badly worn or damaged chain.

These causes should be corrected to avoid future problems.

Chain and sprockets should be replaced when:

1. The chain reaches 3% elongation.
2. The chain jumps the sprocket.
3. The flights have worn to about one-half of the original thickness.
4. The conveying surface becomes uneven through wear.
5. The thrust surface of side-flexing chains wears away and exposes the rivet or other metal parts which may cut into wearstrips or other conveyor components.
6. The sprocket teeth develop a hooked profile or the chain tends to "hang up" on the sprocket teeth.

These suggestions on chain and conveyor care serve as a guide toward maintaining continuous, trouble-free operation. Implementation of a conscientious programmed maintenance schedule will lead to many productive hours of conveyor operation.

# ENVIRONMENTAL CONSIDERATIONS

## Abrasive Applications

⇨ Applications with the presence of dirt, sand, glass or metal particles can lead to premature wear of the conveying chain and wearstrips.

⇨ Recommendations:

- Utilize wearstrips and chains with a hard wear surface
- If possible, use controls to minimize the amount of accumulation
- The use of WX chain material and metal sprockets can extend wear life

## Chemical Applications

⇨ Make sure any chemicals or cleaners used on conveyors are compatible with chain, wearstrip and sprockets. See table on page EM - TT - 15 for more detailed compatibility information.

## Dry Applications

⇨ Considerations to be taken when running dry:

- Product backline pressure
- Conveyor cleanliness
- Conveyor pulsation
- Increased component wear

## Extreme Temperature Applications

⇨ The recommended minimum and maximum operating temperatures for Multiflex chain and wearstrips can vary due to the presence of moisture.

| Wearstrip Material | Minimum Temperature | | Maximum Temperature | | | |
|---|---|---|---|---|---|---|
| | Dry | | Dry | | Wet | |
| | °F | °C | °F | °C | °F | °C |
| Acetal | -40 | -40 | 180 | 82 | 150 | 66 |
| UHWMPE/ULF | -100 | -73 | 180 | 82 | 160 | 71 |
| Nylon | -40 | -40 | 220 | 104 | NR | NR |
| Stainless Steel | -100 | -73 | 800 | 427 | 250 | 121 |
| Steel | -40 | -40 | 350 | 177 | NR | NR |
| Lubricated Impregnated Wood | -50 | -46 | 160 | 71 | 160 | 71 |

## Metal Detector Applications

⇨ Plastic chains passing through metal detectors can be supplied with plastic pins on a Made-To-Order (MTO) basis (requires 60% Derate).

## High-Speed Applications

⇨ In any high-speed application, the critical aspect of the conveyor is the corners. The concern with running the chain at high speeds is the PV (Pressure-Velocity) in the corners. If the PV limits are exceeded, the chain or corner track may become damaged due to the heat generated from the high speed and/or load. It is generally recommended to utilize Nylatron corner tracks in conjunction with PS or HP materials or selective lubrication for these applications. PSX chain with ULF corner tracks will provide the best PV capability and least energy consumption.

## Long-Length Conveyors/Pulsation Applications

⇨ Pulsation or "slip stick" of chain results in a jerking chain motion which can occur in long, slow-speed and dry conveyors. Pulsation can create product stability problems in extreme cases. It can also result in premature chain elongation or the chain jumping drive sprocket teeth. As a general rule of thumb, it is recommended that conveyor lengths do not exceed 100 ft (30m) per drive, regardless of loading. Rexnord also recommends a 150° minimum wrap on the head sprocket. If necessary, this can be maintained with the use of a snubber roller.

## Static Environment Applications

⇨ Under certain conditions, thermoplastic can acquire a static nuisance charge. Static environments are classified as:

CAUTION

**Class I:** Static spark causes explosion — stainless steel chains are required.

**Class II:** Static spark is a nuisance charge — low charge will provide slight shock or possible circuit damage.

⇨ All applications utilizing thermoplastic anti-static materials (i.e. AS, ESD) must be approved by Rexnord Application Engineering prior to quoting.

Grounding is crucial for the system to reduce static charges.

## UV Applications

⇨ When conveyor chains are exposed to direct UV (Ultraviolet) or sunlight, DUV stabilized material should be utilized.

# MATERIAL CHARACTERISTIC TABLE

| Material Characteristics | Metal | | | Thermoplastic | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | S | SS | SSB | HP WHP | LF WLF | D WD | BWR | AS HCAS | ESD | HS | P | CR | MR | DUV | FR | PS PSX | WX BWX |
| Impact-Resistant | • | • | • | | | | • | | | | | • | • | | | | • |
| Wear-Resistant | • | • | • | • | • | | • | | | | | | | | | • | • |
| Chemical-Resistant* | | • | • | | | | | | | | | • | • | | | | |
| High Strength | • | • | • | • | • | • | • | | | • | • | • | • | • | | • | • |
| Low Frictional Characteristics | | | | • | • | • | | | | | | | | | | • | |
| Capability to Run Dry in Corners | | | | • | • | | • | | | | | | • | | | • | • |
| Suitability in Wet Environments | | • | • | • | • | • | | | | • | • | • | | • | • | • | |
| Low-Temperature Capability (to 40°F) | • | • | • | • | • | • | • | | | • | | | • | • | | • | • |
| High-Temperature Capabilities (to +180°F) | • | • | • | • | • | • | • | • | • | • | • | • | • | • | | • | • |
| Ultra Violet Capabilities | • | • | • | | | | • | | | | | • | • | | | | • |
| Suitability for Class II (nuisance static) | • | • | • | | | | | • | • | | | | | | | | |
| Suitability for Class I (explosive static) | | • | • | | | | | | | | | | | | | | |
| Non-magnetic Qualities | | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Flame Retardance | • | • | • | | | | | | | | | • | | | • | | |
| Capability to Convey Hot Products (to +375°F) | • | • | • | | | | | | | | | | • | | | | • |
| FDA Approval | | • | • | • | • | • | | | | | • | • | | | | • | |

S = Carbon Steel
SS = Stainless Steel
SSB = Low Magnetic Stainless Steel
HP = High Performance
WHP = White High Performance
LF = Low-Friction
WLF = White Low-Friction
D = Acetal
WD = White Acetal
BWR = Black Wear-Resistant
AS = Anti-Static
HCAS = Anti-Static High Capacity

ESD = Electrostatic Dissipative
HS = Heat-Stabilized
P = Chemical-Resistant
CR = Extreme Chemical-Resistant
MR = Melt-Resistant
DUV = Ultraviolet-Resistant
FR = Flame-Retardant
PS™ = Platinum Series
PSX = Platinum Series X
WX = Abrasion-Resistant
BWX = Black Abrasion-Resistant

*See Corrosion Resistance Guide on Page EM - MF - 15 for more details

# CORROSION RESISTANCE GUIDE

| Common or Chemical Name | Carbon Steel | Austenitic | Acetal | Nylon and Nylatron | Polyester | Chemically Resistant Fluorinated Polymer | Polypropylene | Polyethylene | Neoprene | EPDM |
|---|---|---|---|---|---|---|---|---|---|---|
| | S | SS, SSB | AS, HCAS, DUV, HP, LF, PS, PSX, WD, WHP, WLF | BWR, HS, MR, WX, BWX | P, FR | CR | ESD | UHMWPE | | |
| Acetic Acid (over 5%-up to 50%) | U | M | U | M | S | S | S | S | M | S |
| Acetone | U | S | S | S | S | U | S | S | M | S |
| Alcohol | S | S | S | S | S | S | S | S | S | S |
| Ammonia | M | S | U | S | S | S | S | S | S | S |
| Beer | S | S | S | S | S | S | S | S | S | S |
| Beverages-Soft Drinks | S | S | S | S | S | S | S | S | S | S |
| Benzene | S | S | S | S | S | S | M | M | M | U |
| Brine (pickle) | U | M | M | M | S | S | S | S | S | S |
| Carbon Tetrachloride | M | M | S | S | S | U | M | M | U | U |
| Chlorine | U | U | U | U | S | S | S | S | U | M |
| Citric Acid | U | S | M | M | S | S | S | S | S | S |
| Cyclohexane | – | – | S | – | – | S | U | U | S | S |
| Ethyl Chloride | – | S | S | S | S | S | M | M | M | M |
| Formaldehyde | S | S | S | S | S | M | S | S | S | S |
| Formic Acid | U | U | U | U | S | S | S | S | M | M |
| Fruit Juices | U | S | S | S | S | S | S | S | S | S |
| Gasoline | S | S | S | S | S | S | M | M | S | U |
| Hexane | – | S | S | – | S | S | S | U | S | U |
| Hydrochloric Acid (up to 2%) | U | U | U | U | S | S | S | S | M | S |
| Hydrochloric Acid (up to 37%) | U | U | U | U | S | S | M | S | U | M |
| Hydrogen Peroxide | U | S | U | U | S | S | M | S | M | S |
| Iodine | U | U | U | U | U | M | M | M | U | U |
| Isopropanol (isopropyl alcohol) | S | S | S | S | S | S | S | S | S | S |
| Lactic Acid | U | S | S | M | S | M | S | S | S | S |
| Methylene Chloride | – | S | S | – | U | M | S | U | U | U |
| Milk | S | S | S | S | S | S | S | S | S | S |
| Muriatic Acid | U | U | U | U | S | S | M | S | U | M |
| Nitric Acid (low concentrations) | U | S | U | U | S | S | S | S | M | S |
| Oil (vegetable or mineral) | S | S | S | S | S | M | S | S | S | U |
| Ozonated Water | S | S | M | U | S | S | M | S | U | S |
| Paraffin | S | S | S | S | S | S | S | S | S | U |
| Phosphoric Acid (up to 10%) | U | S | U | U | S | S | S | S | S | S |
| Soap and Water | M | S | S | S | S | S | S | S | S | S |
| Sodium Chloride | U | M | S | S | S | S | S | S | S | S |
| Sodium Hydroxide (up to 25%) | U | S | S | U | U | M | S | S | S | S |
| Sodium Hypochlorite (Bleach) | U | U | U | U | S | S | S | S | U | S |
| Stearic Acid | U | S | M | S | S | S | S | S | S | M |
| Sulfuric Acid (up to 40%) | U | U | U | U | S | S | S | S | M | S |
| Toluene (Toluol) | S | S | M | S | S | M | S | U | U | U |
| Turpentine | – | S | S | S | S | S | S | U | S | U |
| Vegetable Juices | M | S | S | S | S | S | S | S | U | S |
| Vinegar | U | S | S | S | S | M | S | S | S | S |
| Water (fresh) | U | S | S | S | S | S | S | S | S | S |
| Whiskey | S | S | S | S | S | S | S | S | S | S |
| Wine | S | S | S | S | S | S | S | S | S | S |
| Xylene | S | S | S | S | S | S | U | M | U | U |

**Dash = Not Tested** **M = Marginal** **U = Unsatisfactory** **S = Satisfactory**

**General Rules of Thumb:**

With acetal products, do not use cleaning or lubricating agents with a pH below 4 or above 10. This table is based on data available by various material suppliers.

# CONVEYOR DESIGN RECOMMENDATIONS

## Straight-Running Configuration

⇨ A long conveyor with a single drive is the simplest and most ideal design. Sometimes several short conveyors are required due to application constraints

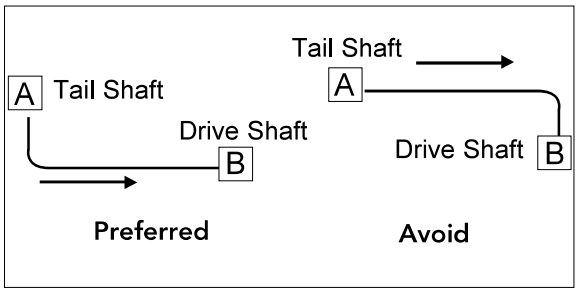
## Side-Flexing Configuration

In general, the straight section between the corner and the drive shaft must be at least 18 in (457mm) to allow adequate room for the catenary (see page EM - MF - 28). The tail shaft should be at least 12 in (305mm).

⇨ Depending on chain style, corner discs or corner tracks can be utilized

⇨ Corner discs are used to guide the chain without significant increase in chain tension

⇨ When conveying from Point A to Point B, design the conveyor so that the drive is positioned furthest from the last corner (see drawing), resulting in lower chain tension and maximizing chain life




⇨ Consideration should be given to the design of the curves within a conveyor such that if the chain has little to no "allowable twist", the curve should be designed to **NOT** change elevation while simultaneously side-flexing through the curve. Doing so on chains that do not twist will bind the chain and lead to chain failure. Multiflex chains have negligible "allowable twist" hence curves should be designed so as **NOT** to change elevation while side-flexing through the curve.

## Straight-Running and Side-Flexing Configuration

⇨ The conveyor frame is designed to support the chain on the bottom of the link

⇨ For applications where debris is a concern, an open design, such as a serpentine design, is preferred over full-width support

⇨ The serpentine design prevents the buildup of debris in the track and distributes the wear evenly across the bottom of the link

⇨ Abrasive applications should utilize steel or stainless steel wearstrips

⇨ Wet abrasive applications should utilize stainless steel wearstrips and pins

⇨ Non-abrasive conditions should utilize UHMWPE or Nylatron wearstrips

**Multiflex chains should not be twisted.**

**1700, 1702, 1755, 1765, 2550 and 2565 chains MUST utilize corner discs.**

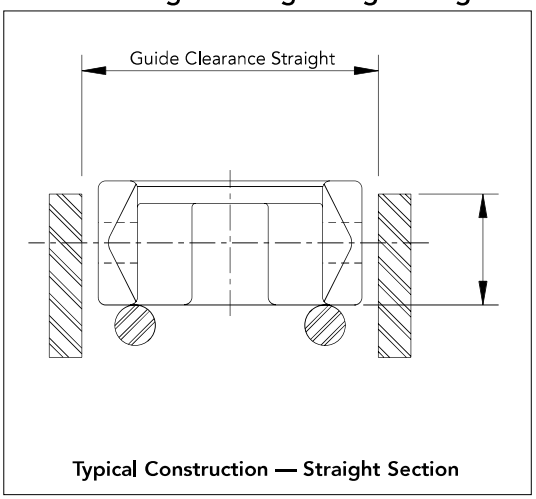
**Make sure that the entire chain path (carry, return, sprocket and catenary sag areas) has plenty of clearance for free chain travel. Make sure all frame and support members, piping, conduits and mounting hardware are well clear of chain path.**

# CONVEYOR DESIGN RECOMMENDATIONS

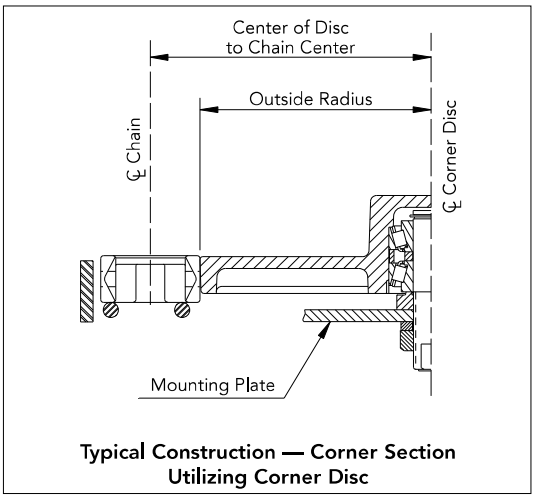
## Carry Ways

⇨ Guide clearance is critical for Multiflex chains. For guide clearance dimensions of individual chains, see table on page EM - MF - 21 or Product Catalog (8rxCAT-en).

### Side-Flexing — Straight Edge Design




Typical Construction — Straight Section




Typical Construction — Corner Section Utilizing Corner Disc

⇨ Chain can be lifted out of straight sections for cleaning or inspection

⇨ Longer conveyors can be achieved with the use of corner discs

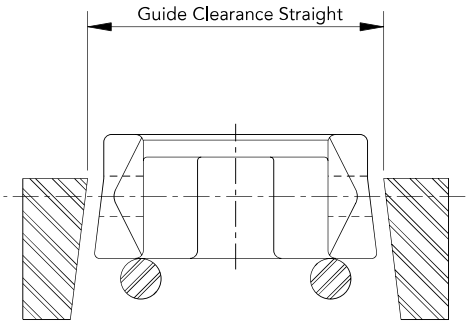
**CAUTION** **1700, 1702, 1755, 1765, 2550 and 2565 chains MUST utilize corner discs.**

# CONVEYOR DESIGN RECOMMENDATIONS

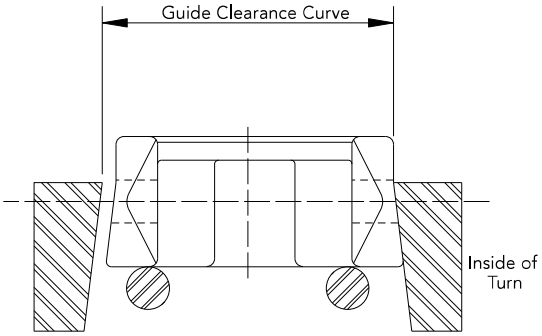
## Carry Ways

⇨ Guide clearance is critical for Multiflex chains. For guide clearance dimensions of individual chains, see table on page EM - MF - 21 or Product Catalog (8rxCAT-en).

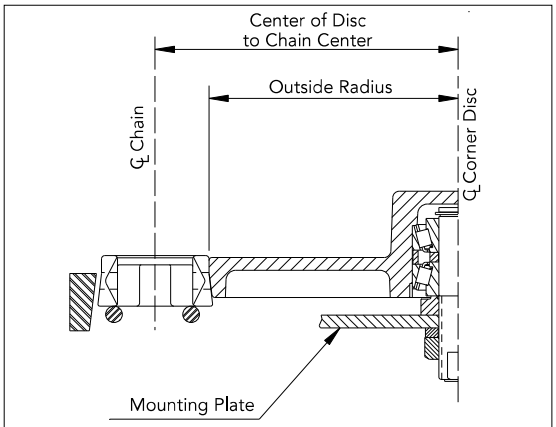
### Side-Flexing — Bevel Design




**Typical Construction — Straight Section**




**Typical Construction — Corner Section Utilizing Corner Track**




**Typical Construction — Corner Section Utilizing Corner Disc**

⇨ Chain can be lifted out of straight sections for cleaning or inspection

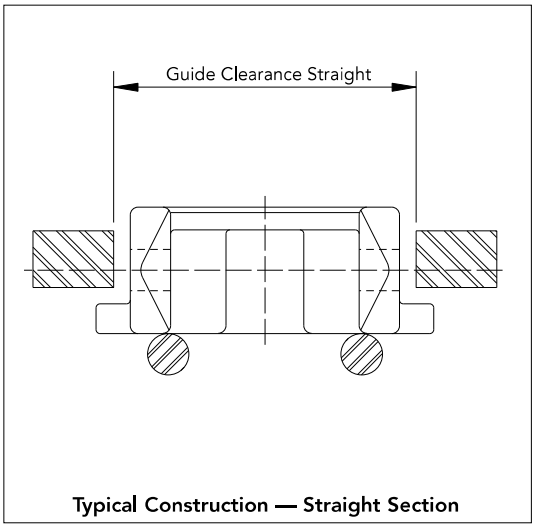
⇨ Longer conveyors can be achieved with the use of corner discs

**1700, 1702, 1755, 1765, 2550 and 2565 chains MUST utilize corner discs.**

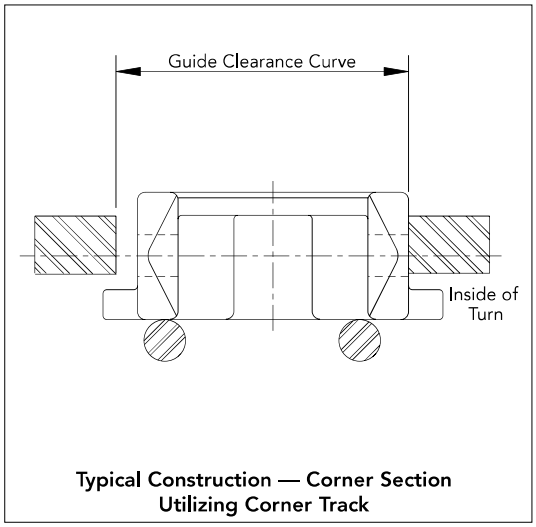
## Carry Ways

⇨ Guide clearance is critical for Multiflex chains. For guide clearance dimensions of individual chains, see table on page EM - MF - 21 or Product Catalog (8rxCAT-en).

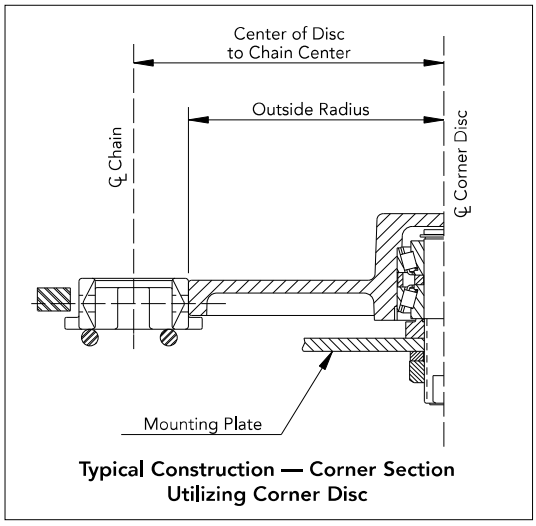
### Side-Flexing — TAB Design




**Typical Construction — Straight Section**



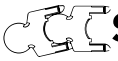

**Typical Construction — Corner Section Utilizing Corner Track**



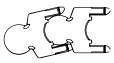

**Typical Construction — Corner Section Utilizing Corner Disc**

⇨ Positive retention
⇨ TABs hold chain down in incline or decline applications
⇨ Chain top surface wear is decreased if the TAB return is utilized
⇨ Longer conveyors can be achieved with the use of corner discs
⇨ Once assembled, the TAB chain cannot be lifted out of the conveyor track

**CAUTION 1700, 1702, 1755, 1765, 2550 and 2565 chains MUST utilize corner discs.**

#  SIDE-FLEX RADIUS TABLE

| Chain Style | Chain Width | | Minimum Side-Flex Radius | |
|---|---|---|---|---|
| | in | mm | in | mm |
| 1700 | 2.17 | 55.1 | 5.75 | 146.1 |
| AC 1700 | 2.17 | 55.1 | 5.75 | 146.1 |
| 1701 | 2.09 | 53.1 | 5.75 | 146.1 |
| 1701 TAB | 2.09 | 53.1 | 5.75 | 146.1 |
| AC 1701 TAB | 2.09 | 53.1 | 5.75 | 146.1 |
| 1702 | 2.09 | 53.1 | 5.75 | 146.1 |
| 1755 | 1.09 | 27.7 | 5.38 | 136.5 |
| 1757 TAB | 3.25 | 82.6 | 6.00 | 152.4 |
| LBP 1757 TAB | 3.25 | 82.6 | 6.00 | 152.4 |
| 1757 TAB G | 3.25 | 82.6 | 8.00 | 203.2 |
| 1765 | 2.17 | 55.1 | 4.92 | 125.0 |
| 2500 TAB | 2.63 | 66.8 | 9.50 | 241.3 |
| 2550 TAB | 3.50 | 88.9 | 9.50 | 241.3 |
| 2565 | 3.50 | 88.9 | 9.50 | 241.3 |



# GUIDE CLEARANCE TABLE

| Chain Style | | 1701 | 1701T AC 1701T | 2500T | AC 1700 1700 1765 | 1702 | 1755 | 1757T LBP 1757T 1757T G | 2550T 2565 |
|---|---|---|---|---|---|---|---|---|---|
| Hold Down Style | | Bevel | TAB | TAB | N/A | N/A | N/A | TAB | TAB |
| Guide Clearance Straight | in | 2.19 | 2.34 | 2.97 | 2.28 | 2.34 | 1.20 | 2.44 | 3.76 |
| | mm | 55.6 | 59.5 | 75.4 | 58.0 | 59.4 | 30.5 | 61.9 | 95.4 |
| Guide Clearance Corner | in | 2.34 | 2.25 | 2.81 | N/A | N/A | N/A | * | N/A |
| | mm | 59.4 | 57.2 | 71.4 | N/A | N/A | N/A | * | N/A |
| Corner Wearstrip Thickness | in | 0.63 | 0.63 | 0.75 | Must Use Corner Disc | Must Use Corner Disc | Must Use Corner Disc | * | Must Use Corner Disc |
| | mm | 16.0 | 16.0 | 19.0 | | | | * | |

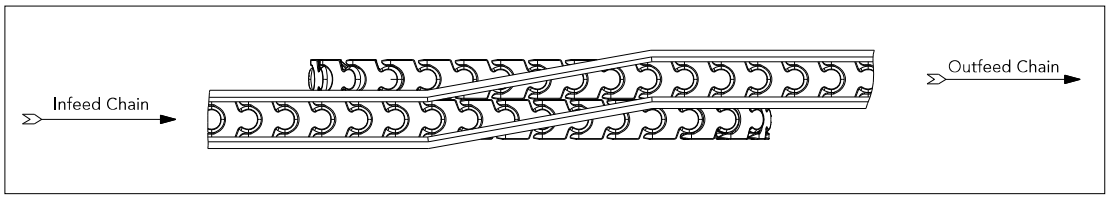
*Rexnord only offers corner discs for these chains; however corner tracks can be utilized.

# CONVEYOR DESIGN RECOMMENDATIONS

## Transfers

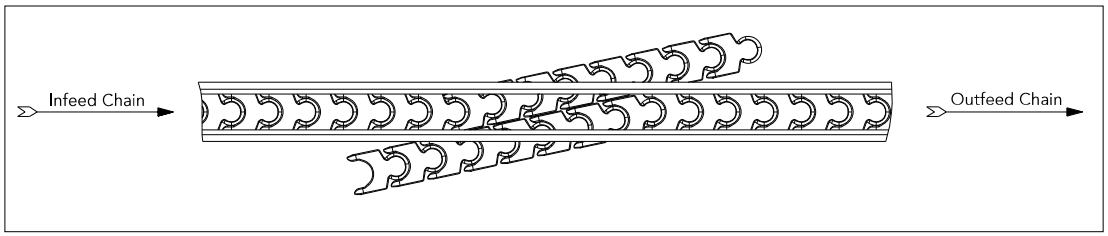
⇨ Smooth transfer of the conveyed product from one chain to another is essential. The various methods are described below:

### Side Transfer




✓ ⇨ Adjacent strands of chain should share a common wearstrip
⇨ No stranded products

### Inline Transfer

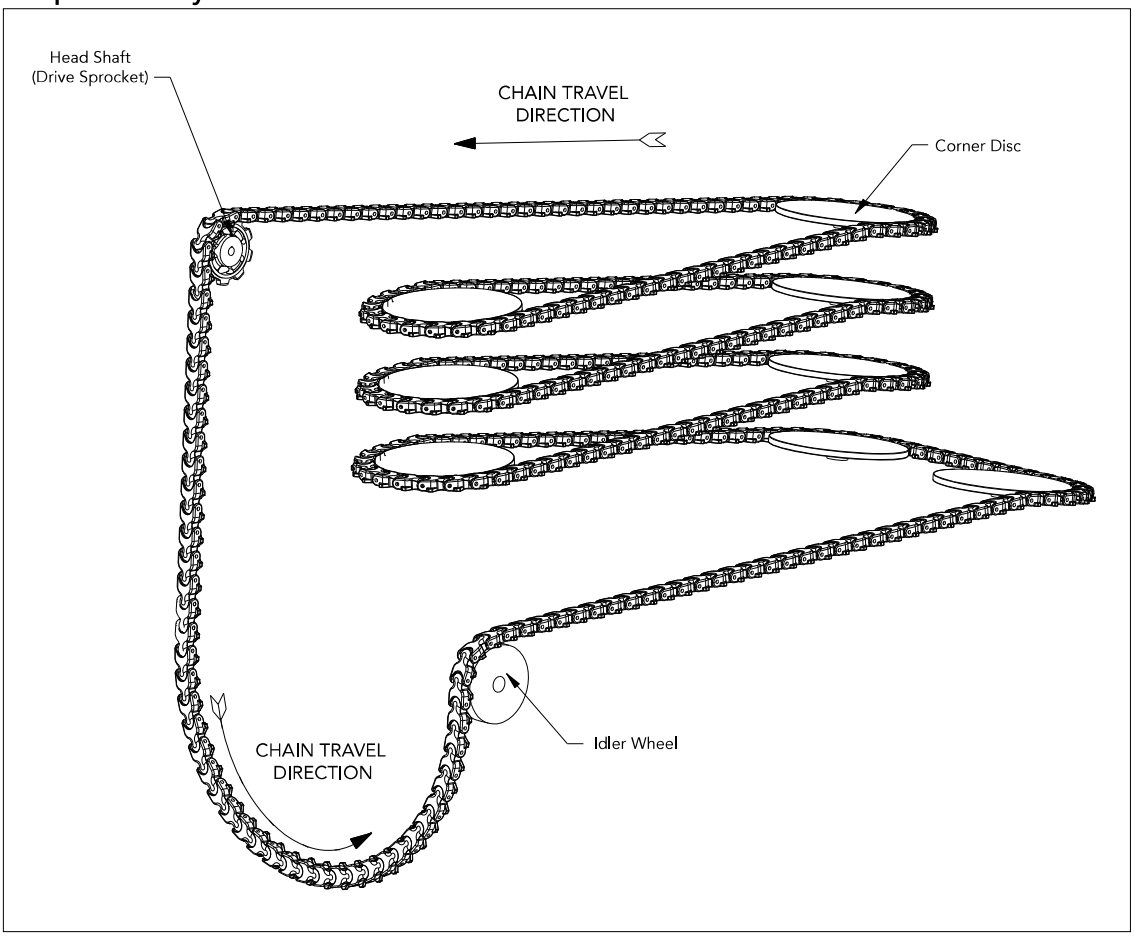



✓ ⇨ Adjacent strands of chain should share a common wearstrip
⇨ Allows product to remain in straight line
⇨ No stranded products

i These arrangements are used in an offset wrap drive, which allows a single strand of chain to be used; see page EM - TT - 28 (TableTop Section) for offset wrap drive details.

## Alternate Drive Configurations

### Alpine Conveyor



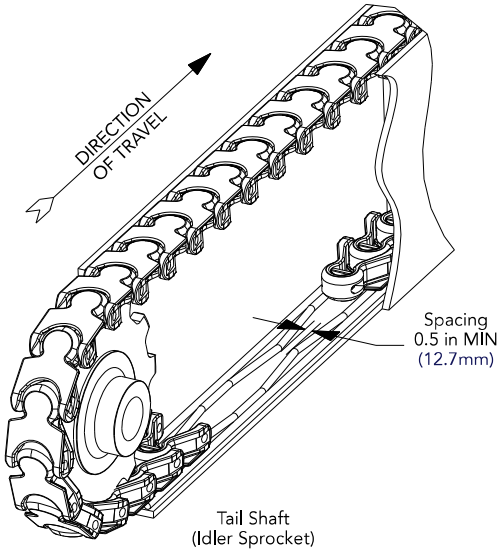

- Multiflex chains have the ability to elevate or lower products in a very compact area. This figure shows a typical elevating system and how the chain is returned in a non-standard configuration.
- Full return is not required
- The chain hangs straight down from the drive sprocket and side-flexes back up into the tail section
- Elevators can be designed with free-hanging (catenary sag) and sliding returns
- Roller returns are not recommended
- The straight and corner return sections can be the same as the carry section
- The chain is run in the conveyor upside down through the return section
- Depending on chain design, discs may have to be mounted upside down in the return

# CONVEYOR DESIGN RECOMMENDATIONS

## Return Ways

### Serpentine Style Return

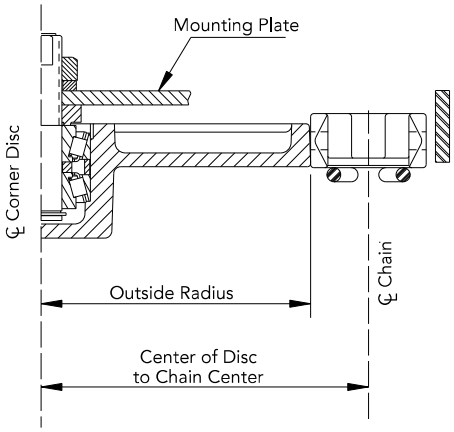
- A wide selection of chain returns are possible with Multiflex chains which offers considerable conveyor design freedom
- The chain is fully supported
- Allows for drainage and the passage of foreign materials




**Conveyor with Serpentine Return Bed**

### Side-Flexing — Straight Edge Design

- The corner disc in the return section is mounted in the same manner as in the carry section
- Depending on chain design, discs may have to be mounted upside down in the return




**Typical Construction — Corner Section Utilizing Corner Disc**

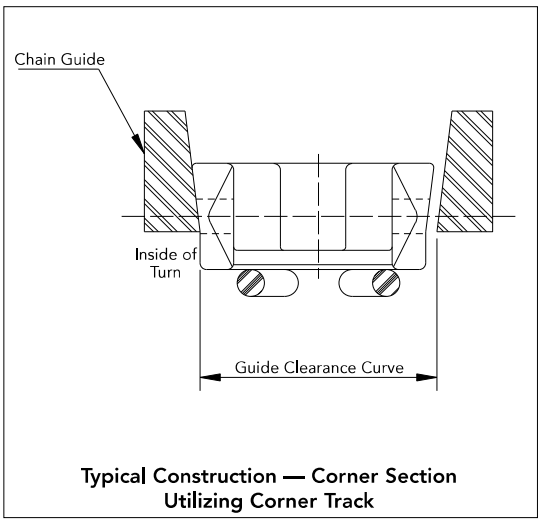
When returning chain with molded inserts (HPM), caution should be taken to ensure that the inserts do not interfere with the return elements.

Possible solutions:

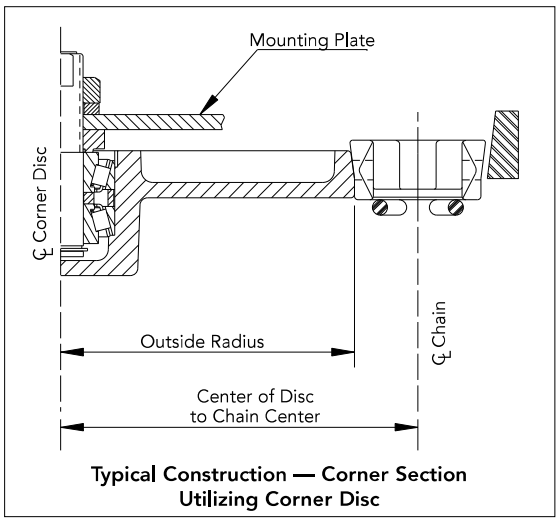
- Return the chain on its TABs
- Return the chain on the outer edge of the links via rollers or wearstrips

## Return Ways

### Side-Flexing — Bevel Design




**Typical Construction — Corner Section Utilizing Corner Track**

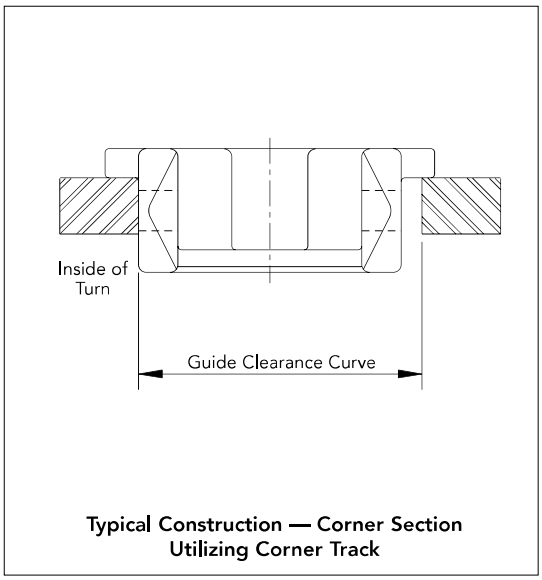



**Typical Construction — Corner Section Utilizing Corner Disc**

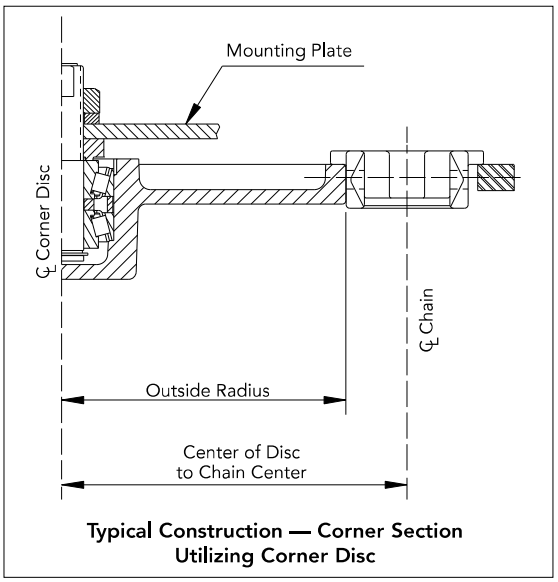
⇨ The corner disc in the return section is mounted in the same manner as in the carry section

⇨ Depending on chain design, discs may have to be mounted upside down in the return

### Side-Flexing — TAB Design




**Typical Construction — Corner Section Utilizing Corner Track**




**Typical Construction — Corner Section Utilizing Corner Disc**

⇨ The corner disc in the return section is mounted in the same manner as in the carry section

⇨ Depending on chain design, discs may have to be mounted upside down in the return

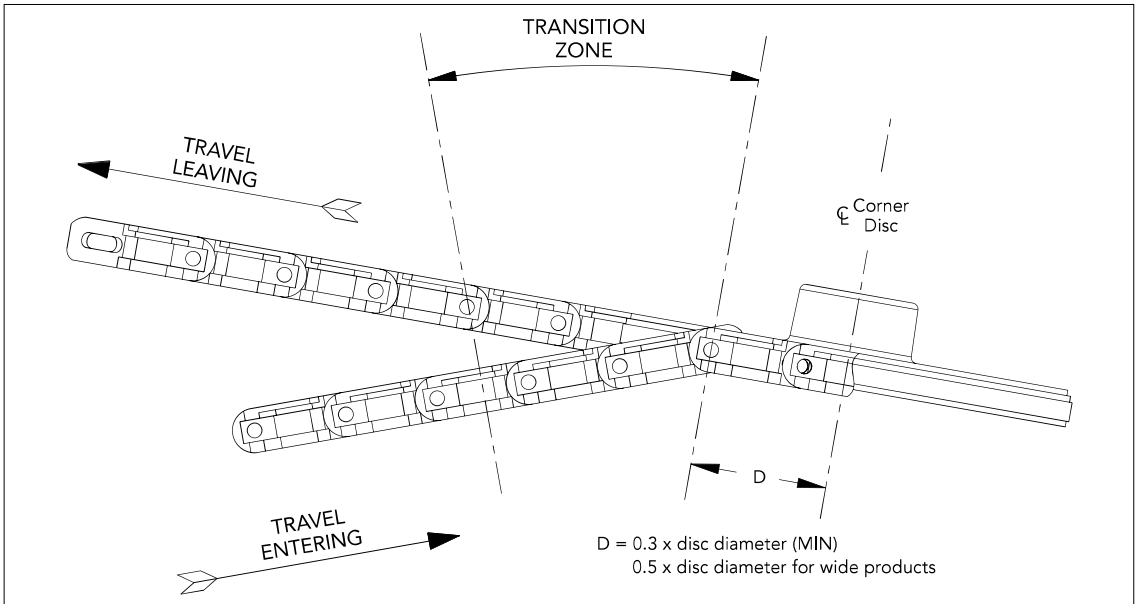
**CAUTION** **1700, 1702, 1755, 1765, 2550 and 2565 chains MUST utilize corner discs.**

# CONVEYOR DESIGN RECOMMENDATIONS

## Multiflex Incline Conveyors

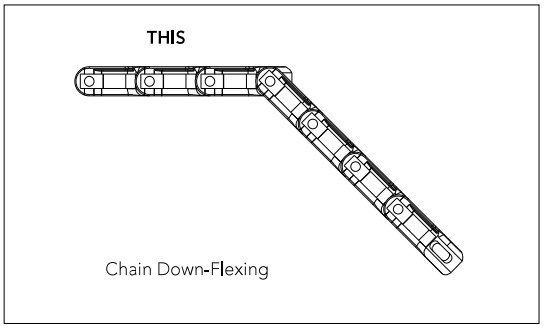
CAUTION To ensure proper functioning of these conveyors it is important that:

- ⇨ The chain enters and leaves the disc in the same plane as the disc
- ⇨ In the transition zone, the wearstrips should be curved to accomplish smooth transition from one plane to the next
- ⇨ The maximum angle of incline or decline for an application depends on product stability and friction between chain and product

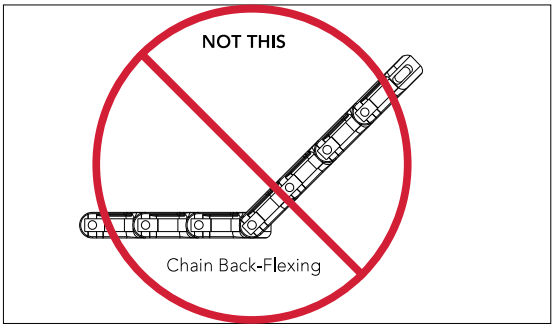



**Inclined Chain Entering and Leaving a Corner Disc**

- ⇨ When inclining, the chain must pass through a transition zone **prior** to entering the disc
- ⇨ The disc should be tipped so that it lies in the same plane as the chain exiting the disc




⇨ Any change in angle of chain travel should be made by down-flexing the chain as shown

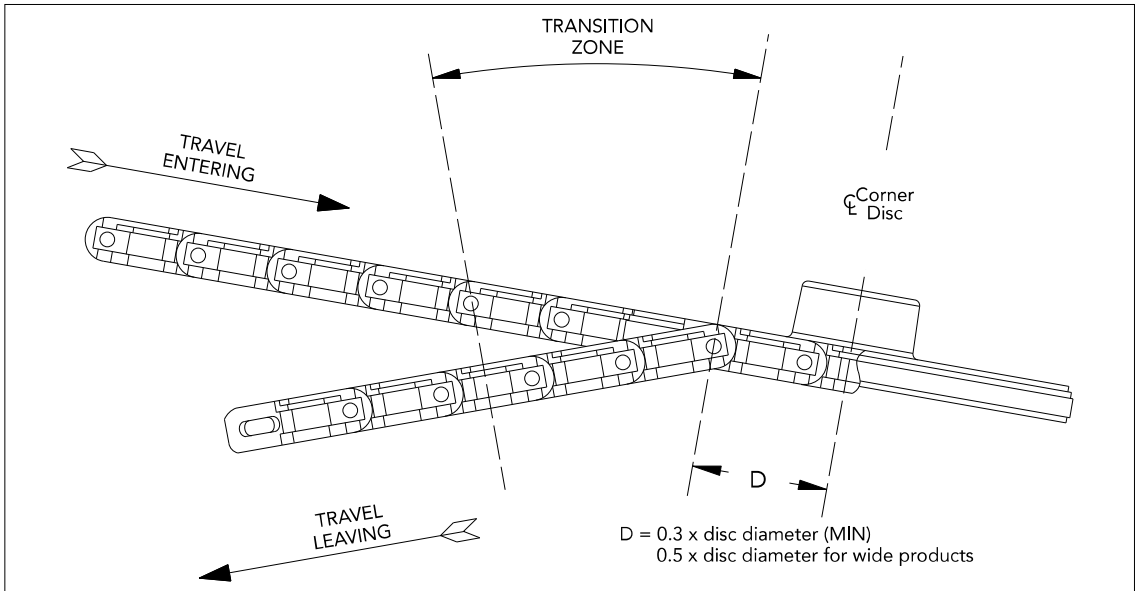



⇨ Back-flexing through a change in angle will cause the chain to rise out of the conveyor frame

## Multiflex Decline Conveyors

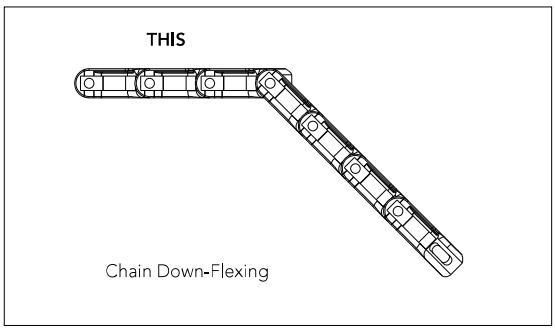
CAUTION To ensure proper functioning of these conveyors it is important that:

- ⇨ The chain enters and leaves the disc in the same plane as the disc
- ⇨ In the transition zone, the wearstrips should be curved to accomplish smooth transition from one plane to the next
- ⇨ The maximum angle of incline or decline for an application depends on product stability and friction between chain and product

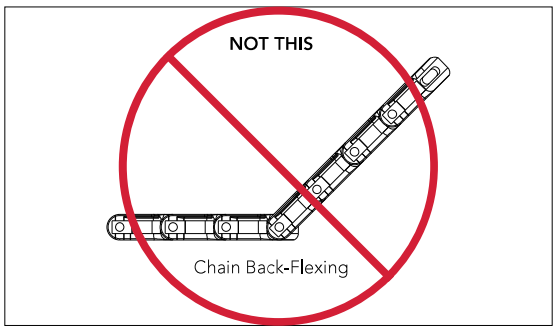



**Inclined Chain Entering and Leaving a Corner Disc**

- ⇨ When declining, the chain must pass through a transition zone **after** exiting the disc
- ⇨ The disc should be tipped so that it lies in the same plane as the chain entering the disc




⇨ Any change in angle of chain travel should be made by down-flexing the chain as shown



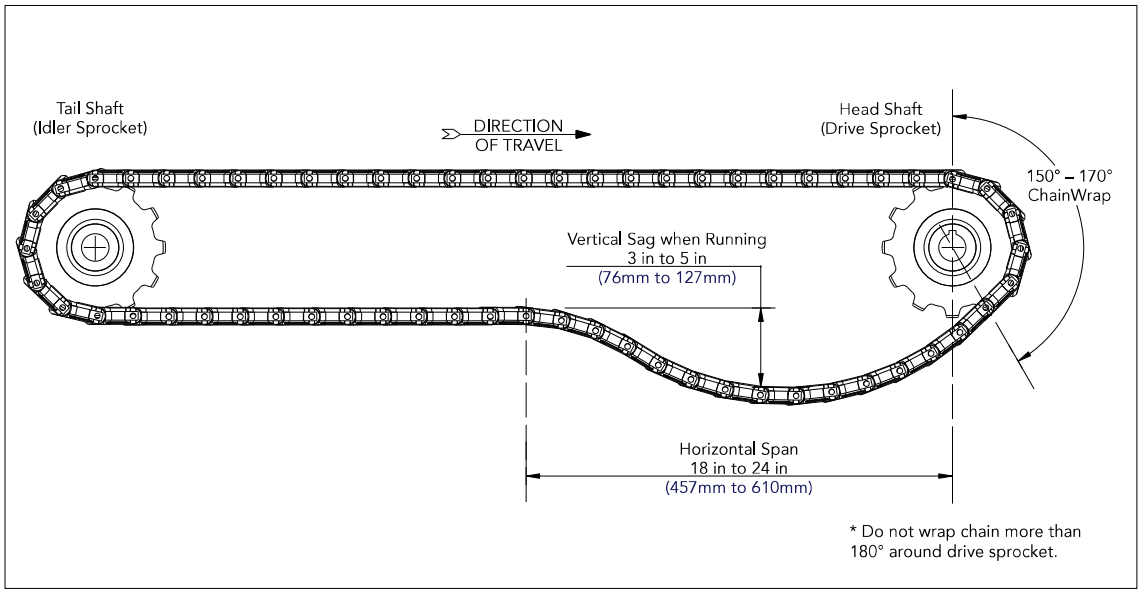

⇨ Back-flexing through a change in angle will cause the chain to rise out of the conveyor frame

# CONVEYOR DESIGN RECOMMENDATIONS

## Return Ways

### Catenary Sag

- ⇨ The function of the catenary is to allow a place for excess chain to accumulate
- ⇨ Multiflex chains should never be run tight
- ⇨ The catenary sag should be measured when running
- ⇨ If catenary sag is excessive or increases due to wear, it should be adjusted by removing links to obtain the proper sag
- ⇨ Take-ups are typically not recommended
- ⇨ The catenary sag should be located as close to the drive as possible




CAUTION The catenary sag area must be free of all obstructions, such as frame cross-members, supports, drive components, that can damage chain or inhibit proper catenary sag.

CAUTION It is recommended to keep the sprockets and chain clean of debris and foreign matter. If this is not done, the chain can stick to (not release freely from) the drive sprockets causing the catenary to bounce leading to possible chain damage or breakage. In cases of extreme environments, a hold down roller can be positioned above the catenary near the drive sprocket(s) to keep the chain from overwrapping the drive sprocket(s).

## Return Ways

### Entry Radius for Sliding Returns

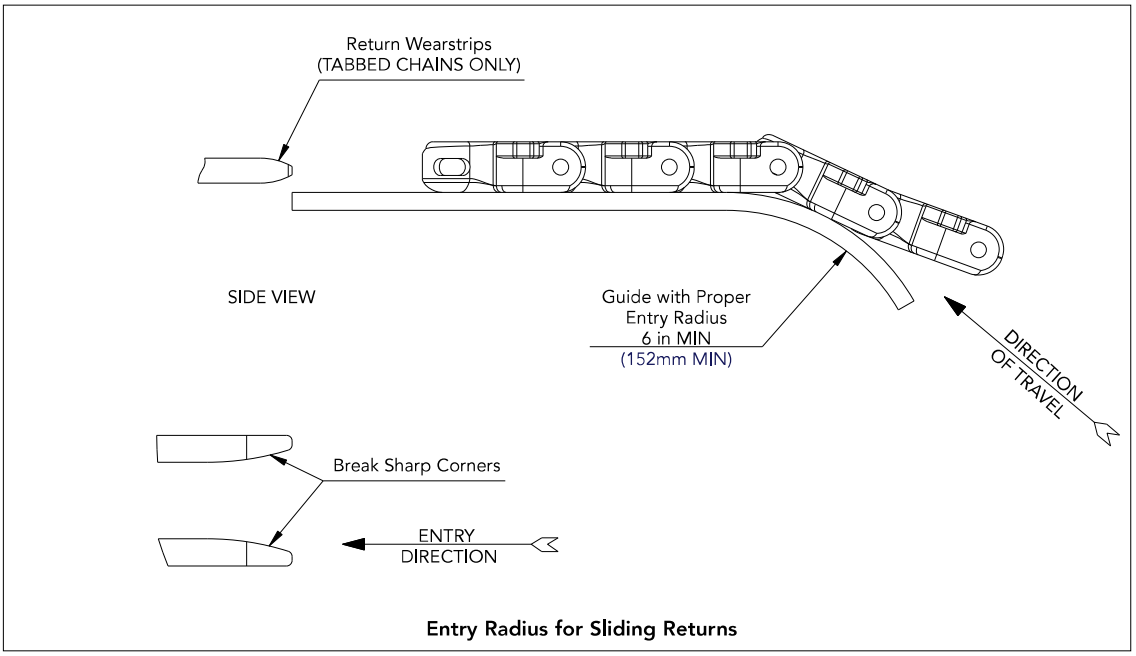
CAUTION Provide a generous entry radius to the return section which permits the chain to feed smoothly into the return ways

⇨ The entry radius should be greater than the minimum back-flex radius of the chain (see table below)

⇨ Rexnord recommends a 6 in (152mm) minimum entry radius to prevent non-uniform wear

⇨ When returning a chain on its TABs, guide the chain onto the return wearstrips using a guide shoe (see table on page EM - MF - 21 for proper guide clearance)

⇨ At the entry of the return wearstrips, provide rounded corners to prevent catching or snagging of the chain flights




**Entry Radius for Sliding Returns**

| Back-Flex Radius Table | | |
|---|---|---|
| Chain Style | Min. Back-Flex Radius | |
| | in | mm |
| 1700, AC1700, 1701, 1701TAB, AC1701TAB, 1702, 1755, 2500TAB, 2550TAB | 1.50 | 38.1 |
| 2565 | 3.50 | 88.9 |
| 1757TAB, LBP1757TAB | 4.00 | 101.6 |
| 1765 | 2.50 | 63.5 |

# CONVEYOR DESIGN RECOMMENDATIONS

## Sprocket and Wearstrip Location

⇨ The distance from the end of the wearstrip to the sprocket shaft centerline should equal dimension "C" (one chain pitch); otherwise the wearstrip will interfere with the free articulation of the chain as it enters the sprocket.

⇨ The leading edges of the wearstrip should be beveled

⇨ The following formulas and dimensions used in conjunction with the figure will give the proper shaft and wearstrip positioning:

### Sprocket Location for Conventional Chains

**A = (Pitch Diameter/2) - E**

**C = One Chain Pitch** (which ensures support under chain at all times)

⇨ See table below for C and E dimensions

**Example:**

For a 1700 chain utilizing a 10T sprocket:

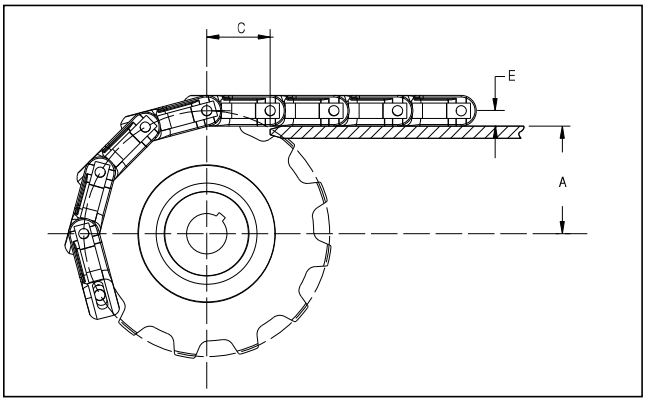
A = (Pitch Diameter/2) - E = (6.369 in/2) - 0.470 in = 2.715 in
C = 1.97 in

Metric:

A = (Pitch Diameter/2) - E = (161.77mm/2) - 11.94mm = 68.95mm
C = 50.0mm

### Tolerances

A = +.03 in / -.00 in (+.8mm / -.0mm)
C = +.25 in / -.00 in (+6.3mm / -.0mm)




| Shaft Drop Values — For Conventional Chains | | | | | |
|---|---|---|---|---|---|
| Chain Series | Chain Numbers | "C" Dimension | | "E" Dimension | |
| | | in | mm | in | mm |
| 1700 | 1700, AC1700 | 1.97 | 50.0 | 0.470 | 11.94 |
| 1701 | 1701 | 1.97 | 50.0 | 0.480 | 12.19 |
| 1701TAB | 1701TAB, AC1701TAB | 1.97 | 50.0 | 0.480 | 12.19 |
| 1702 | 1702 | 1.97 | 50.0 | 0.480 | 12.19 |
| 1755 | 1755 | 1.58 | 40.0 | 0.250 | 6.35 |
| 1765 | 1765 | 1.97 | 50.0 | 0.470 | 11.94 |
| 2500TAB | 2500TAB | 3.00 | 76.2 | 0.700 | 17.78 |
| 2550TAB | 2550TAB | 3.00 | 76.2 | 0.700 | 17.78 |
| 2565 | 2565 | 3.00 | 76.2 | 0.700 | 17.78 |

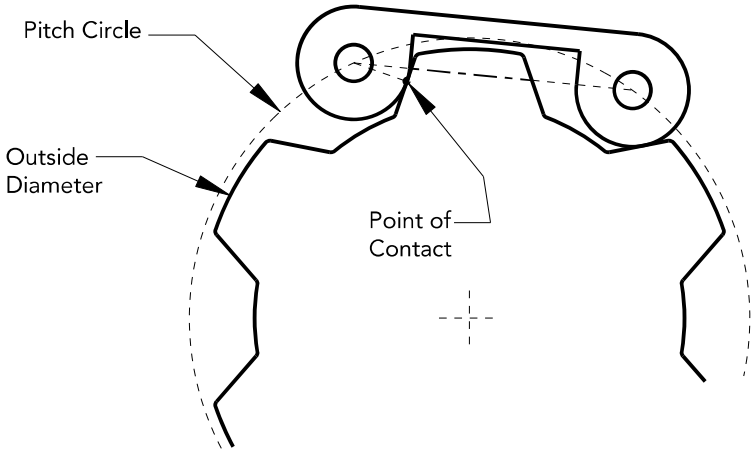
For 1757 chains, see page EM - TT - 33 (TableTop section).

Contact Rexnord Application Engineering for more information 1.262.376.4800

## Sprocket Pitch Diameter vs. Outside Diameter

In some instances, it is possible for a sprocket's pitch diameter to be larger than the outside diameter. This is not a problem because the link does not contact the sprocket on the pitch circle.

### Why Pitch Diameter Is Larger Than the Outside Diameter on Small Sprockets




⇨ The outside diameter is to the outer tips of the teeth.

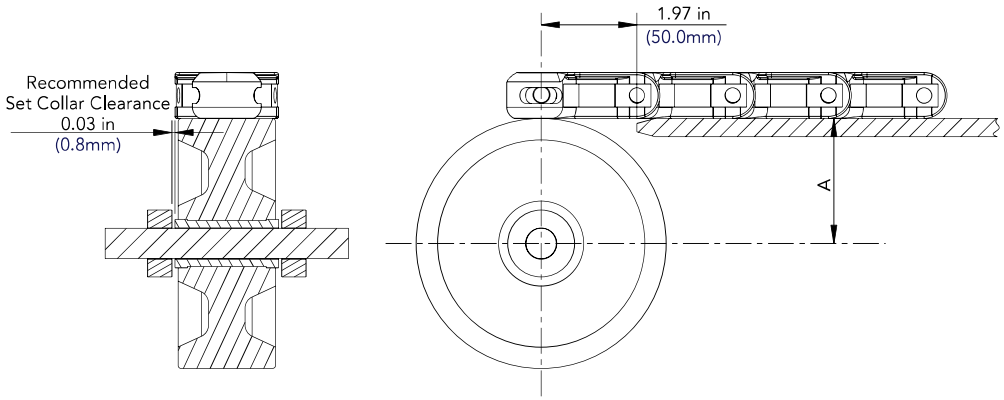
⇨ The chain's pins are on the pitch diameter. On a very small sprocket, the chord created by the link causes the point where the sprocket contacts the tooth to be much closer to the sprocket center than the pins and the pitch circle.

Chordal action is defined as the up and down motion of the chain over top dead center of the sprocket centerline. Excessive chordal action can lead to product tippage.

# CONVEYOR DESIGN RECOMMENDATIONS

## Idler Wheel and Sprocket Location (Stationary Shafts Only)

⇨ For proper location and smooth operation, the idler wheels should be mounted slightly below the top of the wearstrips




| Idler Wheel | "A" Dimension | | Chains Used |
|---|---|---|---|
| | in | mm | |
| 1700-8T Idler Wheel | 2.57 | 66.3 | 1701, 1701TAB, 1702, 1765 |
| 1757-10.5T Idler Wheel | 2.95 | 74.95 | 1757 |

Idler Wheel Location

## Shafting Recommendations for Stationary Tail Shafts

**Recommended Materials:**

⇨ Carbon Steel (dry environments only)

⇨ Stainless Steel

**Suggested Hardness:**

⇨ 25 to 30 Rc

**Suggested Surface Finish:**

⇨ 63 µ-in Ra

✓ Rexnord recommends rotating shafts in bearings. If bearings are not used, the following are guidelines for operating Multiflex sprockets on stationary shafts:

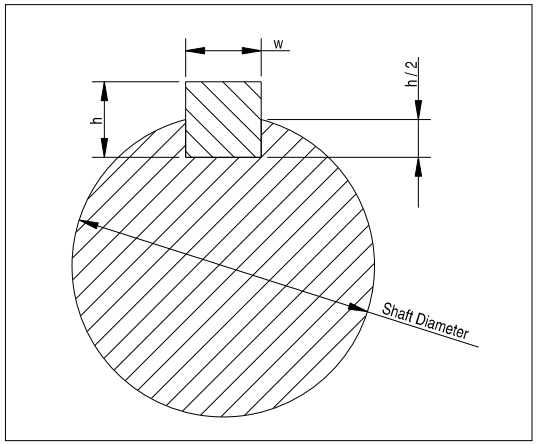
| Sprocket | Max. Recommended Chain Speed | |
|---|---|---|
| | FPM | MPM |
| N - Acetal | 0–50 | 0–15 |
| UHMWPE | 0–50 | 0–15 |
| NS - Nylon, Split | 0–100 | 0–30 |
| LF Bushing (Idler Wheel) | 0–300 | 0–90 |
| Bronze Bushing | 0–500 | 0–150 |
| Bearings | Recommended for Speeds > 500 | Recommended for Speeds > 150 |

## Keyway and Setscrew Sizes

| English: | KEYWAY | | | |
|---|---|---|---|---|
| **Shaft Diameter** | **Key Width (w)** | **Key Height (h)** | **Keyseat at Depth (h/2)** | **Setscrew Size** |
| > 9/16" to 7/8" | 3/16" | 3/16" | 3/32" | 1/4-20 |
| > 7/8" to 1-1/4" | 1/4" | 1/4" | 1/8" | 3/8-16 |
| > 1-1/4" to 1-3/8" | 5/16" | 5/16" | 5/32" | 3/8-16 |
| > 1-3/8" to 1-3/4" | 3/8" | 3/8" | 3/16" | 3/8-16 |
| > 1-3/4" to 2-1/4" | 1/2" | 1/2" | 1/4" | 1/2-13 |
| > 2-1/4" to 2-3/4" | 5/8" | 5/8" | 5/16" | 1/2-13 |

**Metric:**

| Shaft Diameter | Key Width (w) | Key Height (h) | Keyseat at Depth (h/2) | Setscrew Size |
|---|---|---|---|---|
| > 22mm to 30mm | 8mm | 7mm | 3.5mm | M6 x 1 |
| > 30mm to 38mm | 10mm | 8mm | 4mm | M8 x 1.25 |
| > 38mm to 44mm | 12mm | 8mm | 4mm | M10 x 1.5 |
| > 44mm to 50mm | 14mm | 9mm | 4.5mm | M10 x 1.5 |
| > 50mm to 58mm | 16mm | 10mm | 5mm | M12 x 1.75 |
| > 58mm to 65mm | 18mm | 11mm | 5.5mm | M12 x 1.75 |




English keyed round bore sprockets are available with one setscrew as standard. Additional setscrews can be provided upon request. Metric keyed round bore sprockets are not supplied with a setscrew as standard.

CAUTION If multiple strands share a tail shaft, key only one sprocket and allow others to rotate. Collars should be utilized to prevent lateral movement.

## Split Sprocket Bore Nomenclature

**Shaft Ready** — Tight fit on the shaft with a keyway and setscrew.

**Plain Bore** — Same tight fit bore as a shaft ready bore, but without a keyway and setscrew.

**Idler Bore** — Round bore with a clearance fit (no keyway or setscrew). Designed to spin freely on the shaft.

**Rough Stock Bore** — Wide tolerance bore used for work in process. Not for use on any shaft. Must be further machined for actual use.

**Over Sized Bore** — Round bore with a slightly loose fit on the shaft with keyway but no setscrew. Designed to move laterally on the shaft during setup and still transmit torque through the keyway as a drive sprocket in the actual application. Not recommended for axial float in thermal applications.

# TableTop CALCULATION PROGRAM

The TableTop Calculation Program is available to perform chain pull calculations for specific conveyor applications.

## Chain Pull Calculations

⇨ **To obtain the most recent calculation program:**

- Download from Technical Support at: http://www.rexnord.com/flattop
- Contact Application Engineering

⇨ **Prior to performing chain pull calculations, the following information is needed:**

- Chain style, material and width
- Wearstrip material
- Corner disc or corner track material
- Lubrication conditions (i.e. dry, water, Soap & Water, oil)
- Chain speed (FPM) or (MPM)
- Product weight (lbs/ft) or (kg/m)
- Product material
- Number of starts per hour (e.g. indexing conveyors)
- Percent of time product accumulation occurs (i.e. slippage)
- Portion of conveyor where product accumulation occurs
- Conveyor layout with dimensions

⇨ **The calculation output sheet contains the following information:**

- Calculated headshaft chain tension
- Maximum allowable headshaft chain tension
- Percent of allowable chain tension
- Total horsepower required with an assumed gearbox efficiency of 100%
- Calculated corner tension (PV)
- Maximum allowable corner tension

✓ If the percent of allowable chain tension is 100% or less, your conveyor application is within chain capacity.

CAUTION The horsepower requirement the program calculates is the "design horsepower" that is required to power the conveyor based on the input parameters. Additional considerations should be made for the type of drive used, efficiency losses in the power train, appropriate service factors, as well as any gearbox manufacturer's recommendations.

CAUTION Rexnord recommends some sort of soft start for all FlatTop chain conveyor motors, but especially for higher speeds and conveyors with bottom drives. Hard starts add peak loads to the chain, which will shorten the service life. Hard starts can also cause the chain to stretch and bounce in the catenary sag section, sometimes causing the chain to catch in the conveyor frame and become damaged. On bottom drives, hard starts can cause the chain to fall off the drive sprockets and skip teeth.

✓ If the calculated corner tension is less than the maximum allowable corner tension, your conveyor application is within chain PV capacity.

⇨ **The TableTop Chain Calculation Program calculates the following:**

- Carousel conveyor analysis (i.e. offset wrap drive conveyors)
- Universal conveyor analysis (i.e. alpine systems, multiple loading systems)
- Catenary sag vs. length vs. tension
- Catenary sag vs. length vs. excess chain
- Product backline pressure (due to accumulation)

CAUTION The TableTop Calculation Program does not take environmental conditions into consideration. This calculation program ONLY provides information on whether the chain is within capacity.

## Friction Formulas

⇨ When inclining or declining, the coefficient of friction must be modified between chain and wearstrip (Fw)

**Incline:** $Fw_{incline} = (Fw_{horizontal} \times Cos\varnothing) + Sin\varnothing$

**Decline:** $Fw_{decline} = (Fw_{horizontal} \times Cos\varnothing) - Sin\varnothing$

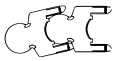
i For an example of calculating chain speed, see page EM - TT - 39 (TableTop Section).

# TableTop CALCULATION PROGRAM

## Typical Product Sizes and Weights

| Content | | Container Material | Container Size | Base Dimensions | | Weight Full | | Single File | | En Masse | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | inches | mm | lbs | kg | lbs/ft | kg/m | lbs/ft² | kg/m² |
| Dairy | Milk | Paper | 1/2 Pint | 3 x 3 | 76.2 x 76.2 | 0.60 | 0.27 | 2.4 | 3.6 | – | – |
| | | Paper | Pint | 3 x 3 | 76.2 x 76.2 | 1.10 | 0.50 | 4.4 | 6.5 | – | – |
| | | Paper | Quart | 3-1/8 x 3-1/8 | 79.4 x 79.4 | 2.30 | 1.04 | 8.8 | 13.1 | – | – |
| | | Paper | 1/2 Gallon | 4-1/8 x 4-1/8 | 104.8 x 104.8 | 4.50 | 2.04 | 13.1 | 19.5 | – | – |
| | | Plastic | Gallon | 6 x 6 | 152.4 x 152.4 | 8.90 | 4.04 | 17.8 | 26.5 | – | – |
| | Yogurt | Plastic | 6 oz | 2-5/8 Ø | 66.7Ø | 0.40 | 0.18 | 1.8 | 2.7 | 9.7 | 46.9 |
| | | Plastic | 6 Pack / 4 oz Containers | 5 x 7 | 127 x 177.8 | 1.57 | 0.71 | 3.8 | 5.6 | – | – |
| | Cottage Cheese | Plastic | 1/2 lb | 4 Ø | 101.6Ø | 0.60 | 0.27 | 1.8 | 2.7 | 6.2 | 30.3 |
| | | Plastic | 1 lb | 4-3/4 Ø | 120.7Ø | 1.10 | 0.50 | 2.8 | 4.1 | 8.1 | 39.4 |
| | | Plastic | 2 lb | 5 Ø | 127Ø | 2.30 | 1.04 | 5.5 | 8.2 | 15.3 | 74.4 |
| Beverages | Concentrated Juice | Paper | 12 oz | 2-5/8 Ø | 66.7Ø | 1.00 | 0.45 | 4.6 | 6.8 | 24.1 | 117.2 |
| | Juice | Plastic | Gallon | 6 Ø | 152.4Ø | 1.17 | 0.53 | 2.3 | 3.5 | 5.4 | 26.3 |
| | | Glass | Gallon | 6 Ø | 152.4Ø | 3.59 | 1.63 | 7.2 | 10.7 | 16.6 | 80.6 |
| | | Paper | 6.75 oz Box (Tetra) | 1-1/2 x 2-1/4 | 38.1 x 57.2 | 0.48 | 0.22 | 3.8 | 5.7 | – | – |
| | | Plastic | 10 Pack / 6.75 Boxes (Tetra) | 3 x 10-1/2 | 76.2 x 266.7 | 4.87 | 2.21 | 19.5 | 29.0 | – | – |
| | Soft Drink | Aluminum | 250ml PET | 2-5/64 Ø | 52.9Ø | 0.63 | 0.29 | 3.6 | 5.4 | 24.3 | 117.4 |
| | | Aluminum | 12 oz | 2.6 Ø | 66.0Ø | 0.85 | 0.39 | 3.9 | 5.8 | 20.9 | 101.8 |
| | | Plastic | 500ml PET | 2-37/64 Ø | 65.5Ø | 1.16 | 0.53 | 5.4 | 8.0 | 29.0 | 141.0 |
| | | Plastic | 20 oz PET | 2-7/8 Ø | 73.0Ø | 1.37 | 0.62 | 5.7 | 8.5 | 27.6 | 134.1 |
| | | Plastic | 1 Liter PET | 3-3/16 Ø | 81.0Ø | 2.31 | 1.05 | 8.7 | 12.9 | 37.8 | 183.7 |
| | | Plastic | 1-1/2 Liter PET | 4-3/16 Ø | 106.4Ø | 3.40 | 1.54 | 9.7 | 14.5 | 32.2 | 156.7 |
| | | Plastic | 2 Liter PET | 4-1/2 Ø | 114.3Ø | 4.40 | 2.00 | 11.7 | 17.5 | 36.1 | 175.7 |
| | | Plastic | 3 Liter PET | 5-1/8 Ø | 130.2Ø | 6.38 | 2.89 | 14.9 | 22.2 | 40.4 | 196.3 |
| | Beer | Glass | 12 oz | 2-1/2 Ø | 63.5Ø | 1.50 | 0.68 | 7.2 | 10.7 | 39.9 | 194.0 |
| | | Glass | 12 oz Non-Returnable | 2-3/4 Ø | 69.9Ø | 1.20 | 0.54 | 5.2 | 7.8 | 26.4 | 128.1 |
| | | Glass | 16 oz Non-Returnable | 2-3/4 Ø | 69.9Ø | 1.60 | 0.73 | 7.0 | 10.4 | 35.2 | 170.8 |
| | | Glass | 32 oz | 2-5/8 Ø | 66.7Ø | 3.40 | 1.54 | 15.5 | 23.1 | 82.0 | 398.6 |
| | | Glass | 64 oz | 3-5/8 Ø | 92.1Ø | 3.88 | 1.76 | 12.8 | 19.1 | 49.1 | 238.6 |
| | | Aluminum | 12 oz | 2.6 Ø | 66.0Ø | 0.85 | 0.39 | 3.9 | 5.8 | 20.9 | 101.8 |
| | | Paper | 12 Pack / 12 oz Cans | 10-3/4 x 7-3/4 | 273.1 x 196.9 | 10.40 | 4.72 | 11.6 | 17.3 | – | – |
| | | Paper | 12 Pack Fridge Pack | 16 x 4-7/8 | 406.4 x 123.8 | 10.32 | 4.68 | 7.7 | 11.5 | – | – |
| | | Paper | 24 Pack / 12 oz Cans | 16 x 10-3/4 | 406.4 x 273.1 | 20.16 | 9.14 | 15.1 | 22.5 | – | – |
| | | Paper | 24 Pack / 12 oz Cans (cube) | 10-3/4 x 7-3/4 | 273.1 x 196.9 | 20.16 | 9.14 | 22.5 | 33.5 | – | – |
| | | Paper | 18 Pack / 12 oz Cans | 16 x 7-3/4 | 406.4 x 196.9 | 14.69 | 6.66 | 11.0 | 16.4 | – | – |
| | | Paper | 30 Pack / 12 oz Cans | 13-1/2 x 7-3/4 | 342.9 x 196.9 | 24.48 | 11.10 | 21.8 | 32.4 | – | – |
| | Wine / Champagne | Glass | 750ml | 2-7/8 Ø | 73.0Ø | 2.88 | 1.31 | 12.0 | 17.9 | 57.9 | 281.9 |
| | | Glass | 1.5 Liter | 4-1/4 Ø | 108.0Ø | 6.37 | 2.89 | 18.0 | 26.8 | 58.6 | 284.9 |
| | | Glass | 12 oz | 2-1/2 Ø | 63.5Ø | 1.22 | 0.55 | 5.9 | 8.7 | 32.5 | 157.8 |
| | | Paper | 4 Pack / 12 oz Bottles | 5-1/8 x 5-1/4 | 130.2 x 133.4 | 5.07 | 2.30 | 11.9 | 17.7 | – | – |
| | Coffee | Metal | 1/2 lb | 4-1/8 Ø | 104.8Ø | 0.80 | 0.36 | 2.3 | 3.5 | 7.8 | 38.0 |
| | | Metal | 1 lb | 4-1/8 Ø | 104.8Ø | 1.30 | 0.59 | 3.8 | 5.6 | 12.7 | 61.7 |
| | | Metal | 2 lb | 5-1/4 Ø | 133.4Ø | 2.50 | 1.13 | 5.7 | 8.5 | 15.1 | 73.3 |
| | | Metal | 3 lb | 6-1/4 Ø | 158.8Ø | 3.80 | 1.72 | 7.3 | 10.9 | 16.2 | 78.6 |
| Food | Baby Food | Glass | Regular | 2-3/8 Ø | 60.3Ø | 0.56 | 0.25 | 2.8 | 4.2 | 16.5 | 80.3 |
| | Baby Food | Glass | Junior | 2-3/8 Ø | 60.3Ø | 0.80 | 0.36 | 4.0 | 6.0 | 23.6 | 114.8 |
| | Soup | Metal | 10.5 oz | 2-5/8 Ø | 66.7Ø | 0.76 | 0.34 | 3.5 | 5.2 | 18.3 | 89.1 |
| | Soup | Metal | 18.5 oz | 3-1/8 Ø | 79.4Ø | 1.33 | 0.60 | 5.1 | 7.6 | 22.6 | 110.0 |
| | Soup | Metal | 32 oz | 4 Ø | 101.6Ø | 1.90 | 0.86 | 5.7 | 8.5 | 19.7 | 96.0 |
| | Cracker | Paper | 10 oz Box | 2-1/4 x 5-1/4 | 57.2 x 133.4 | 0.72 | 0.33 | 3.8 | 5.7 | – | – |
| | Peanut Butter | Plastic | 18 oz | 3 Ø | 76.2Ø | 1.15 | 0.52 | 4.6 | 6.8 | 21.2 | 103.3 |
| | Jelly | Glass | 32 oz | 3-5/16 Ø | 84.1Ø | 2.15 | 0.98 | 7.8 | 11.6 | 32.6 | 158.6 |
| | Jelly | Glass | 18 oz | 2-5/8 Ø | 66.7Ø | 1.62 | 0.73 | 7.4 | 11.0 | 39.1 | 189.9 |
| | Catsup | Plastic | 24 oz | 2-1/4 x 3-3/4 | 57.2 x 95.3 | 1.63 | 0.74 | 8.7 | 12.9 | – | – |
| | Apple Sauce | Glass | 23 oz | 3-5/16 Ø | 84.1Ø | 2.05 | 0.93 | 7.4 | 11.1 | 31.1 | 151.2 |
| | Mayonnaise | Glass | 32 oz | 4 Ø | 101.6Ø | 3.03 | 1.37 | 9.1 | 13.5 | 31.5 | 153.1 |
| | Cereal | Paper | 14 oz Box | 2-3/8 x 7-1/2 | 60.3 x 190.5 | 1.06 | 0.48 | 5.4 | 8.0 | – | – |
| | Vegetable | Metal | 14.5 oz | 2-15/16 Ø | 74.6Ø | 1.04 | 0.47 | 4.2 | 6.3 | 20.0 | 97.5 |
| | Tuna | Metal | 12 oz Can | 4 Ø | 101.6Ø | 0.88 | 0.40 | 2.6 | 3.9 | 9.1 | 44.5 |
| | Tomato Sauce | Metal | 29 oz | 4 Ø | 101.6Ø | 2.07 | 0.94 | 6.2 | 9.2 | 21.5 | 104.6 |
| Cleaners | Dish Soap | Plastic | 25 oz | 2-7/16 x 3-3/8 | 61.9 x 85.7 | 1.78 | 0.81 | 8.8 | 13.0 | – | – |
| | Liquid Laundry Soap | Plastic | 22 oz | 2 x 3-3/8 | 50.8 x 85.7 | 1.60 | 0.73 | 9.6 | 14.3 | – | – |
| | Liquid Laundry Soap | Plastic | 32 oz | 2-5/8 x 4-1/2 | 66.7 x 114.3 | 2.30 | 1.04 | 10.5 | 15.6 | – | – |
| | Liquid Laundry Soap | Plastic | 100 oz | 5-1/2 x 7-3/4 | 139.7 x 196 | 7.01 | 3.18 | 15.3 | 22.8 | – | – |
| | Liquid Bleach | Plastic | Quart | 3-1/4 Ø | 82.6Ø | 2.40 | 1.09 | 8.9 | 13.2 | 37.8 | 183.5 |
| | Liquid Bleach | Plastic | 1/2 Gallon | 4-3/4 Ø | 120.7Ø | 4.80 | 2.18 | 12.1 | 18.0 | 35.4 | 171.9 |
| | Liquid Bleach | Plastic | Gallon | 6-1/4 Ø | 158.8Ø | 9.50 | 4.31 | 18.2 | 27.1 | 40.4 | 196.5 |
| | Liquid Bleach | Plastic | 182 oz | 7-1/4 Ø | 184.2Ø | 8.16 | 3.70 | 13.5 | 20.1 | 25.8 | 125.5 |
| Toiletries | Toilet Paper | Paper | Individual Roll | 4-1/4 Ø | 108.0Ø | 0.23 | 0.10 | 0.6 | 1.0 | 2.1 | 10.3 |
| | Toilet Paper | Plastic | 4 Pack | 4-1/4 x 8-1/2 | 108 x 215.9 | 0.93 | 0.42 | 2.6 | 3.9 | – | – |
| | Toilet Paper | Plastic | 24 Pack | 12 x 15-1/2 | 304.8 x 393.7 | 5.67 | 2.57 | 5.7 | 8.4 | – | – |
| Automotive | Tire | Passenger | Typical | 28 Ø | 711.2Ø | 35.00 | 15.87 | – | – | – | – |
| | Tire | Truck | Typical | 48 Ø | 1219.2Ø | 150.00 | 68.03 | – | – | – | – |

Contact Rexnord Application Engineering for more information 1.262.376.4800



# NOTES