Interroll Conveyor Solutions
Rollers & 24 Volt DC
RollerDrive
Interroll Rollers and RollerDrive are used for moving and sorting products in the smaller size range inside material handling facilities. Deploying dependable Interroll Rollers and RollerDrive frees up OEMs and systems integrators to concentrate on other important tasks such as system design, installation and controls, saving time and money.
The Interroll RollerDrive EC100 is an economical, high-performance brushless 24 volt DC internally motorized drive roller.

### How to order

Please create a reference number with the following configurator.

**RD** - **8** - ** - - - - **U** - ** - ** - **EL**

**FIDLER SHAFT**
- S = 7/16" HEX SPRING-LOADED, 2F
- FF = FEMALE THREAD M16 x 1.5, S5
- FS = FEMALE THREAD M16 x 1.5, 2S

**RUBBER SHAFT**
- T = MALE THREAD M12 x 1.75, ZP
- 2 = MALE THREAD M12 x 1.75, SS
- Unspecified THREAD, 2S

**GEARBOX / SPEED RANGE**
- P = 120:1 RATIO, 86 - 260 fps
- M = 96:1 RATIO, 67 - 220 fps
- L = 72:1 RATIO, 45 - 150 fps
- O = 56:1 RATIO, 32 - 88 fps
- Y = 48:1 RATIO, 28 - 68 fps
- X = 44:1 RATIO, 15 - 50 fps
- Z = 36:1 RATIO, 11 - 34 fps

**EC100 RollerDrive Performance**

<table>
<thead>
<tr>
<th>Gear Ratio</th>
<th>Speed Range Fps</th>
<th>Nominal Torque in-lb</th>
<th>Peak Torque in-lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:1</td>
<td>87 - 269</td>
<td>12.4</td>
<td>12.4</td>
</tr>
<tr>
<td>16:1</td>
<td>67 - 202</td>
<td>13.9</td>
<td>13.9</td>
</tr>
<tr>
<td>28:1</td>
<td>45 - 135</td>
<td>24.8</td>
<td>24.8</td>
</tr>
<tr>
<td>36:1</td>
<td>28 - 88</td>
<td>33.6</td>
<td>33.6</td>
</tr>
<tr>
<td>48:1</td>
<td>22 - 68</td>
<td>44.3</td>
<td>44.3</td>
</tr>
<tr>
<td>64:1</td>
<td>17 - 60</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>96:1</td>
<td>11 - 34</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

**NOTATION**
- **ZP** = ZINC PLATED
- **SS** = STAINLESS STEEL

**TUBE TYPE**
- STRAIGHT
  - 2 STANDARD GROOVES: B01, B04
  - VARIABLE GROOVES: B25, B28
  - PVC SLEEving (STRAIGHT): P05, P15
  - PVC SLEEving (2 STD GROOVES): P1, P15
  - PVC SLEEving (VARIABLE GROOVES): P1, P15
  - POLYURETHANE SLEEving (STRAIGHT): P44, P15
  - POLYURETHANE SLEEving (2 STD GROOVES): G74, G15
  - POLYURETHANE SLEEving (VARIABLE GROOVES): G74, G15

**AVAILABLER STANDARD TUBE GROUPS**
- GALVANIZED: B01, B04
- STAINLESS: B25, B28

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Interroll EC110
24 Volt DC RollerDrive

Product Features
• Wide speed range
• Multiple drive options
• Optional PVC or polyurethane slewing
• Safe, low voltage

Product Benefits
• Modest total cost of ownership
• Low energy consumption
• Rapid installation
• Maintenance free
• Fast ROI

Technical Data

General technical data, RollerDrive EC110

<table>
<thead>
<tr>
<th>Diameter</th>
<th>1.9”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal voltage</td>
<td>22-28 VDC</td>
</tr>
<tr>
<td>No load current</td>
<td>0.6 A</td>
</tr>
<tr>
<td>Max. continuous current</td>
<td>2.5 A</td>
</tr>
<tr>
<td>Max. start current</td>
<td>4.1 A</td>
</tr>
<tr>
<td>Mechanical performance</td>
<td>31%</td>
</tr>
<tr>
<td>Drive efficiency</td>
<td>52%</td>
</tr>
<tr>
<td>Noise level</td>
<td>55 A(rea)</td>
</tr>
<tr>
<td>Minimum length</td>
<td>10.667-14.24” (depending on application)</td>
</tr>
</tbody>
</table>

EC110 RollerDrive Performance

<table>
<thead>
<tr>
<th>Gear Ratio</th>
<th>Speed Range (RPM)</th>
<th>Nominal Torque (in-lb)</th>
<th>Peak Torque (in-lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:1</td>
<td>70-311</td>
<td>6.6</td>
<td>23.3</td>
</tr>
<tr>
<td>16:1</td>
<td>52-188</td>
<td>8.9</td>
<td>31.0</td>
</tr>
<tr>
<td>28:1</td>
<td>39-119</td>
<td>13.3</td>
<td>37.6</td>
</tr>
<tr>
<td>56:1</td>
<td>26-79</td>
<td>19.4</td>
<td>51.8</td>
</tr>
<tr>
<td>88:1</td>
<td>18-40</td>
<td>30.1</td>
<td>102.0</td>
</tr>
<tr>
<td>64:1</td>
<td>10-30</td>
<td>37.6</td>
<td>117.0</td>
</tr>
</tbody>
</table>

The Interroll RollerDrive EC110 is an economical, high-performance brushless 24 volt DC internally motorized drive roller.

Dimensions

How to order

Please create a reference number with the following configurator.

RD - 8 - - - - - - - - - - U - - EL

MOTOR TYPE
E = 24V EC100

GEARBOX / SPEED RANGE
D = 9:1 RATIO, 75 – 311 rpm
F = 12:1 RATIO, 50 – 190 rpm
H = 16:1 RATIO, 39 – 119 rpm
I = 24:1 RATIO, 26 – 79 rpm
Q = 36:1 RATIO, 17 – 53 rpm
V = 48:1 RATIO, 13 – 42 rpm
X = 64:1 RATIO, 10 – 30 rpm

IDLER SHAFT
SL = 7/16” HEX SPRING-LOADED, ZP
FP = FEMALE THREAD M12 x 1.5, SS
PF = POLY-O, 7/16” HEX SPRING-LOADED, SS
PP = POLY-O, 7/16” HEX SPRING-LOADED, ZP
DS = POLY-O, M12 x 1.5 THREAD, SS
RF = POLY-O, FEMALE THREAD M12, ZP

Available standard tube groups

<table>
<thead>
<tr>
<th>TUBE TYPE</th>
<th>GALVANIZED</th>
<th>STAINLESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRAIGHT</td>
<td>RD1</td>
<td>RD4</td>
</tr>
<tr>
<td>2 STANDARD GROOVES</td>
<td>P2F</td>
<td>P2S</td>
</tr>
<tr>
<td>VARIABLE GROOVES</td>
<td>R2F</td>
<td>R2S</td>
</tr>
<tr>
<td>PVC SLEEVING (2 STD GROOVES)</td>
<td>E2S</td>
<td>E2S</td>
</tr>
<tr>
<td>PVC SLEEVING (VARIABLE GROOVES)</td>
<td>P2S</td>
<td>P2S</td>
</tr>
<tr>
<td>POLYURETHANE SLEEVING (STRAIGHT)</td>
<td>F44</td>
<td>F44</td>
</tr>
<tr>
<td>POLYURETHANE SLEEVING (2 STD GROOVES)</td>
<td>G74</td>
<td>G74</td>
</tr>
<tr>
<td>POLYURETHANE SLEEVING (VARIABLE GROOVES)</td>
<td>L75</td>
<td>L75</td>
</tr>
</tbody>
</table>

NOTATION
- SL = INSTALLING LENGTH
- ZP = ZINC PLATED
- SS = STAINLESS STEEL

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## Technical Data

### General technical data, RollerDrive EC110 / EC120

<table>
<thead>
<tr>
<th>Diameter</th>
<th>2.5&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal voltage</td>
<td>24 Volt DC</td>
</tr>
<tr>
<td>No load current</td>
<td>0.6 A</td>
</tr>
<tr>
<td>Max. continuous current</td>
<td>2.5 A</td>
</tr>
<tr>
<td>Max. start current</td>
<td>5.1 A</td>
</tr>
<tr>
<td>Mechanical efficiency</td>
<td>94%</td>
</tr>
<tr>
<td>Drive efficiency</td>
<td>52%</td>
</tr>
<tr>
<td>Noise level</td>
<td>55 dBA</td>
</tr>
<tr>
<td>Minimum length</td>
<td>8.56&quot;-12.73&quot; (depending on application)</td>
</tr>
</tbody>
</table>

### 2.5" RollerDrive Performance

<table>
<thead>
<tr>
<th>Gear Ratio</th>
<th>Speed Range (fpm)</th>
<th>Nominal Torque (ktoe-b)</th>
<th>Peak Torque (ktoe-b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:1 EC110</td>
<td>69-230</td>
<td>8.8</td>
<td>31.0</td>
</tr>
<tr>
<td>16:1 EC110</td>
<td>31-104</td>
<td>13.0</td>
<td>37.0</td>
</tr>
<tr>
<td>24:1 EC110</td>
<td>24-103</td>
<td>19.5</td>
<td>51.0</td>
</tr>
<tr>
<td>36:1 EC110</td>
<td>12-80</td>
<td>29.0</td>
<td>81.0</td>
</tr>
<tr>
<td>48:1 EC110</td>
<td>17.5</td>
<td>30.0</td>
<td>102.0</td>
</tr>
<tr>
<td>36:1 EC120</td>
<td>17.5</td>
<td>30.0</td>
<td>102.0</td>
</tr>
<tr>
<td>48:1 EC120</td>
<td>13.2</td>
<td>48.0</td>
<td>149.0</td>
</tr>
<tr>
<td>54:1 EC120</td>
<td>13.2</td>
<td>43.0</td>
<td>165.0</td>
</tr>
<tr>
<td>86:1 EC120</td>
<td>3.3</td>
<td>89.0</td>
<td>265.0</td>
</tr>
</tbody>
</table>

### Product Features
- Heavy capacity for loads up to 2500 lb.
- Various sprocket options
- Safe low voltage

### Product Benefits
- Modest total cost of ownership
- Low energy consumption
- Rapid installation
- Maintenance free
- Fast ROI

## How to order

Please create a reference number with the following configurator.

```
8-□-□-□-A-1-□-EL
```

### MOTOR TYPE
- G = 24V EC120
- C = 24V EC110

### FIXED SHAFT
1 = C/S THREADED SHAFT .083" WALL (USED ONLY FOR THE EC110)
2 = C/S THREADED SHAFT .120" WALL (USED ONLY FOR THE EC120)

### IDLER SHAFT
1 = C/S 1/16" HEX SPRING-LOADED .083 WALL
2 = C/S 3/8" HEX SPRING-LOADED .120 WALL
3 = LOW PRO POS 1/16" HEX SPRING-120 WALL
4 = LOW PRO POS 11/16" HEX SPRING-120 WALL

### GEAR BOX/SPEED RANGE

### AVAILABLE STANDARD TUBE GROUPS

### NOTATION
- C/S = Carbon Steel
- EL = Installing Length

### Dimensions

- Low-Profile Poly-V (for EC120 only)
- Low-Profile Sprocket (for EC120 only)

---

The Interroll 2.5" RollerDrive EC110/EC120 is a high carrying capacity, brushless, 24 volt DC internally motorized drive roller for high torque, low speed applications.
The Interroll DriveControl card operates Interroll RollerDrive models EC100, EC110, and EC120.

### Technical Data

#### General technical data, DriveControl Card

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>24V DC</td>
</tr>
<tr>
<td>Voltage range</td>
<td>22-26 VDC</td>
</tr>
<tr>
<td>Permissible voltage undulation</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Max. continuous current</td>
<td>EC100: 1.8A</td>
</tr>
<tr>
<td></td>
<td>EC110: 2.4A</td>
</tr>
<tr>
<td></td>
<td>EC120: 2.5A</td>
</tr>
<tr>
<td>Max. start-up current</td>
<td>EC100: 4.1A</td>
</tr>
<tr>
<td></td>
<td>EC110: 4.1A</td>
</tr>
<tr>
<td></td>
<td>EC120: 5.1A</td>
</tr>
<tr>
<td>Fuse</td>
<td>5A Slow Blow</td>
</tr>
</tbody>
</table>

#### Ambient Conditions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature in operation</td>
<td>32° - 104° F</td>
</tr>
<tr>
<td>Ambient temperature during transport &amp; storage</td>
<td>4° - 122° F</td>
</tr>
<tr>
<td>Max. air humidity</td>
<td>90% non-condensing</td>
</tr>
</tbody>
</table>

### DriveControl configuration

For additional information, or to download the Interroll DriveControl card manual, please visit [www.interroll.us](http://www.interroll.us)
Typical ZPA conveyor configuration

1. Zone
2. Direction of travel
3. Load
4. RollerDrive
5. Photoeye
6. DriveControl Card
7. Peer-to-peer communication cable
8. +24V DC/0ND

ZPA TECHNOLOGY

The DriveControl module provides zero pressure accumulation and other functionalities to a conveyor system. Each DriveControl card operates a RollerDrive unit, which in turn drives idler rollers using O-rings, Poly-Vee serpentine belts, chains and sprockets or a full width conveying belt. The DriveControl, RollerDrive, and idler rollers, with associated sensors and switches, are assembled into a short conveyor section known as a zone.

ZERO PRESSURE ACCUMULATION

Zero pressure accumulation occurs as zones hold packages until the next downstream zone clears its sensor. When accumulation occurs, a low signal is passed upstream until each consecutive zone is occupied. Packages never touch each other; and no line pressure occurs.

OTHER APPLICATION

Intermill RollerDrives and DriveControl cards may be used in a variety of applications. While possible applications are almost limitless, some include:

- 90° transfers
- CDLR conveyor
- Machinery
- Packaging equipment

ROLLER SLEEVES

RollerDrives and idler roller tubes can be fitted with PVC or Polyurethane sleeves. Sleeves increase the RollerDrive’s surface friction, allowing them to be used in incline or decline applications. Sleeves also reduce noise and provide a softer surface to help protect sensitive goods being conveyed.

CURVE SLEEVES

Interroll tapered rollers are constructed by pressing tapered sleeves onto an ordinary RollerDrive or idler roller. Mounting holes must be located lower in the outer radius frame to compensate for the 1.8° pitch of the sleeves.

ANTI-SPIN BRACKET

When you use a non-threaded hex shaft, an anti-spin bracket is necessary. This prevents the RollerDrive from rotating in the conveyor frame. Anti-spin brackets are available in point-up and flat-up versions.

EC100/EC110 point up version dimensions

EC100/EC110 flat up version dimensions

EC120 flat up versions dimensions

The EC120 anti-spin bracket is available flat or points up.
**Interroll EC310**

**24 Volt DC RollerDrive**

**Product Features**
- Safe, low voltage
- Fast and easy to install
- Flexible design
- Wide speed range
- Maintenance free

**Product Benefits**
- Up to 30% energy savings
- Fast ROI
- Several configurations possible
- Wide range of applications
- Low running costs

**Technical Data**

General technical data, RollerDrive EC310

- **Diameter:** 1.5”
- **Nominal voltage:** 24.26 VDC
- **No load current:** 0.4 A
- **Rated current:** 2.0 A
- **Maximum peak current:** 5.0 A
- **Rated power:** 30 W
- **Noise level:** 55 dB(A)
- **Minimum length:** 9.76” - 12.90”

**EC310 RollerDrive Performance Overall Specifications**

<table>
<thead>
<tr>
<th>Gear Ratio</th>
<th>Max (rpm)</th>
<th>Min (rpm)</th>
<th>Normal Torque (n-lb)</th>
<th>Starting Torque (n-lb)</th>
<th>Holding Torque (n-lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1</td>
<td>13</td>
<td>344</td>
<td>5.85</td>
<td>1.74</td>
<td>3.17</td>
</tr>
<tr>
<td>12:1</td>
<td>13</td>
<td>258</td>
<td>5.40</td>
<td>1.92</td>
<td>4.25</td>
</tr>
<tr>
<td>16:1</td>
<td>10</td>
<td>193</td>
<td>7.17</td>
<td>1.26</td>
<td>5.66</td>
</tr>
<tr>
<td>20:1</td>
<td>8</td>
<td>155</td>
<td>8.14</td>
<td>2.19</td>
<td>7.08</td>
</tr>
<tr>
<td>24:1</td>
<td>6</td>
<td>129</td>
<td>10.71</td>
<td>2.84</td>
<td>8.30</td>
</tr>
<tr>
<td>36:1</td>
<td>4</td>
<td>86</td>
<td>16.11</td>
<td>3.85</td>
<td>12.74</td>
</tr>
<tr>
<td>48:1</td>
<td>3</td>
<td>64</td>
<td>21.42</td>
<td>5.77</td>
<td>16.99</td>
</tr>
<tr>
<td>64:1</td>
<td>2</td>
<td>48</td>
<td>38.58</td>
<td>9.62</td>
<td>22.65</td>
</tr>
<tr>
<td>96:1</td>
<td>2</td>
<td>32</td>
<td>42.83</td>
<td>103.45</td>
<td>33.98</td>
</tr>
</tbody>
</table>

**Dimensions**

- **Installing Length (EL) between frame: 13”**
- **2X 5/16” Grooves**
- **61” 1/16” Tapered Hex Shaft Spring-loaded**
- **Standard grooves for O-Rings**
- **Poly-O bearing housing**
- **Poly-Vee bearing housing**

**How to order**

Please create a reference number with the following configurator.

RD - 8 - - - - U - EL

**MOTOR TYPE**

- 9V = 24V EC310

**GEARBOX / SPEED RANGE**

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Gearbox</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1</td>
<td>Straight</td>
<td>0.50</td>
</tr>
<tr>
<td>2:1</td>
<td>Straight</td>
<td>1.00</td>
</tr>
<tr>
<td>3:1</td>
<td>Straight</td>
<td>1.50</td>
</tr>
<tr>
<td>4:1</td>
<td>Straight</td>
<td>2.00</td>
</tr>
</tbody>
</table>

**AVAILABLE STANDARD TUBE GROUPS**

<table>
<thead>
<tr>
<th>Tube Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRAIGHT</td>
<td>For 3/4” OD x 0.062” Wall</td>
</tr>
<tr>
<td>2:1 POLYURETHANE SLEEVING</td>
<td>Straight</td>
</tr>
<tr>
<td>3:1 POLYURETHANE SLEEVIING</td>
<td>Straight</td>
</tr>
</tbody>
</table>

**NOTATION**

- 1 = INSTALLING LENGTH
- 2P = ZINC PLATED
- 3P = STAINLESS STEEL

**INTERROLL**

- RD = 24V EC310
- U = 4G GREASE
- EL = ZINC PLATED

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DriveControl 20 / 54

The DriveControl 20 / 54 is the all-purpose interface for the RollerDrive EC310. Fifteen different speeds, as well as the direction of rotation, can be set using DIP switches. Optically decoupled digital I/O’s act as the interface to a higher-order controller. This enables, for instance, the direction of rotation of the 7 different speeds to be set from a PLC. The braking energy of the RollerDrive is fed back into the 24 V grid. The voltage fed back from the RollerDrive EC310 is limited at 30 V by means of the integral brake chopper (voltage-dependently switched load resistance).

DriveControl 20 has an IP rating of 20. DriveControl 54 has an IP rating of 54.

ComControl

This is used for single zone control of the conveyor system. It has three inputs and outputs. Two outputs are supplied with voltage from the system and 0.5 amps can be applied, the remaining output is a relay contact. Terminals are integrated within an IP54 rated enclosure. Input and output functions can be created freely in the configurator.

GatewayControl

GatewayControl is used to connect ConveyorControl to higher-level controls in the system architecture and to integrate it into the network of an existing system. Three types of GatewayControl exist depending on the type of bus available – Profibus, Profinet, or Ethernet/IP.

CentralControl

This is a USB interface that is used for uploading and mapping settings for a conveyor with a PC and the Configurator. This control is not used for zone control and is used for monitoring data communication between modules.

SegmentControl

SegmentControl utilizes two sensors and RollerDrive. The SegmentControl can then control two zones of a conveyor system. Parameters for the switching logic of the sensors can be created easily in the Configurator.

The addressing of the SegmentControl and other modules is done by a magnetic contact, thus no further operating elements are needed. Three LEDs immediately display different statuses.
Interroll Rollers
1100 Series Roller

Bearing
- Polypropylene bearing housing and raceway with stainless steel balls (type 302)
- Bearing housing has double labyrinth seals to prevent entry of contaminants
- Maximum recommended speed 15 FPM

Applications
- Gravity conveyor
- Idler roller

Technical data
General technical data, 1100 Series Roller

<table>
<thead>
<tr>
<th>Shaft options</th>
<th>No-hub</th>
<th>0.192&quot; round C/S or S/S spring loaded</th>
<th>0.192&quot; round C/S or S/S threaded 10-32</th>
<th>0.75&quot; round C/S or S/S or aluminum threaded 1-80</th>
<th>0.75&quot; hex C/S or S/S or aluminum end drilled and tapped 1/4-20 x 5/8 deep</th>
<th>0.050&quot; hex C/S or S/S or aluminum end drilled and tapped 1/4-20 x 5/8 deep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube diameter (D)</td>
<td>Tube material</td>
<td>Wall thickness</td>
<td>Shaft options</td>
<td>No-hub</td>
<td>0.192&quot; round C/S or S/S spring loaded</td>
<td>0.192&quot; round C/S or S/S threaded 10-32</td>
</tr>
<tr>
<td>0.62&quot;</td>
<td>Polished S/S</td>
<td>0.035&quot;</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>0.75&quot;</td>
<td>Polished S/S</td>
<td>0.035&quot;</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>0.78&quot;</td>
<td>Anodized aluminium</td>
<td>0.035&quot;</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>0.80&quot;</td>
<td>Grey PVC</td>
<td>0.035&quot;</td>
<td>●</td>
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<tr>
<td>0.80&quot;</td>
<td>Anodized aluminium</td>
<td>0.050&quot;</td>
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<tr>
<td>0.90&quot;</td>
<td>Mill finished aluminium: 0.045&quot;</td>
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<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>0.90&quot;</td>
<td>Anodized C/S</td>
<td>0.045&quot;</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>0.90&quot;</td>
<td>Polished S/S</td>
<td>0.045&quot;</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>0.90&quot;</td>
<td>Grey PVC</td>
<td>0.11&quot;</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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</tbody>
</table>

NOTATION:
CS = CARBON STEEL
SS = STAINLESS STEEL
ED&T = END DRILLED & TAP
RL = ROLLER LENGTH
OAL = OVERALL LENGTH
BF = BETWEEN FRAMES
B = SHAFT EXTENSION

Dimensions

Typically BF = RL + 0.12"
### Interroll Rollers
#### 1200 Series Roller

**Bearings**
- Commercial carbon steel balls and raceway with zinc plated housing
- Maximum recommended speed 150 FPM

**Applications**
- Gravity conveyor
- Low speed powered applications

---

### Technical data

#### General technical data, 1200 Series Roller

<table>
<thead>
<tr>
<th>Tube diameter (D)</th>
<th>Tube material</th>
<th>Wall thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.75&quot;</td>
<td>Anodized aluminum</td>
<td>0.35&quot;</td>
</tr>
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<td>1&quot;</td>
<td>Anodized aluminum</td>
<td>0.49&quot;</td>
</tr>
<tr>
<td>1.5&quot;</td>
<td>Galvanized C/S</td>
<td>0.49&quot;</td>
</tr>
<tr>
<td>1.58&quot;</td>
<td>Galvanized C/S</td>
<td>0.49&quot;</td>
</tr>
<tr>
<td>1.9&quot;</td>
<td>Mill-finished aluminum</td>
<td>0.65&quot;</td>
</tr>
<tr>
<td>1.9&quot;</td>
<td>Galvanized C/S</td>
<td>0.65&quot;</td>
</tr>
<tr>
<td>1.9&quot;</td>
<td>Galvanized C/S</td>
<td>0.65&quot;</td>
</tr>
<tr>
<td>1.9&quot;</td>
<td>Mill-finished C/S</td>
<td>0.109&quot;</td>
</tr>
<tr>
<td>2.5&quot;</td>
<td>Mill-finished C/S</td>
<td>0.120&quot;</td>
</tr>
<tr>
<td>2.5&quot;</td>
<td>Galvanized C/S</td>
<td>0.120&quot;</td>
</tr>
</tbody>
</table>

**Optional Features**
- PVC or polyethylene sleeving for 1.9" OD
- 1/8" radius O-ring grooves for 1.38" OD
- 3/16" radius O-ring grooves for C/S and S/S 1.9" OD
- Sprockets welded to C/S tube for 1.9" and 2.5" OD

**Shaft options**
- No shaft N/A
- 1/4" round C/S or S/S spring loaded
- 1/4" round C/S or S/S threaded 1/4-20
- 5/16" hex C/S or S/S spring loaded
- 7/16" hex C/S or S/S spring loaded 5/16-18 x 5/8 deep (removable)
- 11/16" hex C/S spring loaded (optional dual spring loaded)

**Dimensions**

Typically BF = RL + 0.12"
# Interroll Rollers

## 1700 Series Roller

### Bearings
- Precision steel standard, optional stainless steel bearings
- Polymer bearing cartridge contains a labyrinth seal to protect against contaminants
- Maximum recommended speed 400 FPM

### Applications
- Line shaft conveyor
- Belt driven live roller conveyor
- Motorized roller conveyor

### Technical data

#### General technical data, 1700 Series Roller

<table>
<thead>
<tr>
<th>NOTATION</th>
<th>CS = CARBON STEEL</th>
<th>S/S = STAINLESS STEEL</th>
<th>ED&amp;T = END DRILLED &amp; TAP</th>
<th>RL = ROLLER LENGTH</th>
<th>OAL = OVERALL LENGTH</th>
<th>BF = BETWEEN FRAMES</th>
<th>B = SHAFT EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube diameter (D)</td>
<td>Tube material</td>
<td>Wall thickness</td>
<td>Shaft Options</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.38&quot;</td>
<td>Galvanized C/S</td>
<td>0.64&quot;</td>
<td>6/4 hex C/S or S/S spring loaded</td>
<td>27/64 hex C/S diameter &amp; 9/32&quot; spring loaded</td>
<td>27/64 hex C/S or S/S5 15/64 x 1/8&quot; flat &amp; 9/32&quot; spring loaded</td>
<td>21/64 hex C/S or S/S5 15/64 x 9/64&quot;</td>
<td>0.06&quot;1/2&quot; round C/S or S/S5 ED&amp;T 3/8-16 x 3/4&quot; deep, fixed</td>
</tr>
<tr>
<td>1.9&quot;</td>
<td>Polished S/S</td>
<td>0.83&quot;</td>
<td></td>
<td></td>
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<tr>
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<td>1.19&quot;</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Mill finish C/S</td>
<td>0.65&quot;</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Galvanized C/S</td>
<td>0.65&quot;</td>
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<tr>
<td></td>
<td>Galvanized S/S</td>
<td>0.65&quot;</td>
<td></td>
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</tr>
<tr>
<td>2.5&quot;</td>
<td>Galvanized C/S</td>
<td>0.83&quot;</td>
<td></td>
<td></td>
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<td></td>
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<tr>
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<td>Gray PVC</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Steel carriage</td>
<td>1.25&quot;</td>
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<td></td>
</tr>
</tbody>
</table>

#### Optional Features
- PVC or polyurethane sleeving for 1.9" OD
- 1/8" radius O-ring grooves for 1.38" OD
- 3/16" radius O-ring grooves for C/S and 5/8" 1.9" OD
- Polymer tapered sleeves for curve applications 1.9" OD
- Poly-Vee and Poly-O bearing housings for 1.9" OD
- Taper Hex shafts for 7/16" hex punched conveyor frames
- Metric sizes available

#### Dimensions

- Typically BF = RL + 0.12"
Interroll Rollers
1800 Series Roller

Bearing
- Precision bearing in a centered metal bearing cartridge manufactured to tight tolerances for excellent concentricity and fit
- An external metal dirt guard shield and polyester felt contact seal provide the bearing with extra protection from contaminants
- Maximum recommended speed 500 FPM, for higher speeds consult Interroll

Applications
- Belt conveyor take-up and return rollers
- High-speed packaging lines
- Heavy-duty applications requiring high-load capacity
- Transfer machines

Technical data

General technical data, 1800 Series Roller

<table>
<thead>
<tr>
<th>Tube material</th>
<th>Diameter</th>
<th>Wall thickness</th>
<th>Shaft options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mill finished CS</td>
<td>1/2”</td>
<td>0.12”</td>
<td>7/16” hex, CS, spiral wound</td>
</tr>
<tr>
<td>Mill finished CS</td>
<td>3/4”</td>
<td>0.18”</td>
<td>1/2-13 x 3/4”, fixed</td>
</tr>
<tr>
<td>Mill finished CS</td>
<td>1”</td>
<td>0.18”</td>
<td>3/8 -16 x 3/4”, fixed</td>
</tr>
<tr>
<td>Mill finished CS</td>
<td>1-1/8”</td>
<td>0.18”</td>
<td>13/32 -16 x 1”, fixed</td>
</tr>
</tbody>
</table>

Dimensions

Typically BF = RL + 0.12”
1.9" RollerDrive (EC100/EC110/EC310)

**Application Data Sheet**

---

**Basic Information**

- Between Frame (inches):
- Desired Speed (fpm):
- Maximum Weight (lbs):

**Transported Material Type:**
- Cardboard
- Plastic
- Steel

**Maximum size (WxHxL inches):**

**Minimum size (WxHxL inches):**

**Conveyor Type:**
- Straight
- Curve
- Incline
- Decline

**Roller center to center (inches):**

**Roller center to roller center distance (inches):**

**Drive Method**

- Grooved (for 3/16" OD o-rings)
- Poly-O grooved hub (for o-rings)
- Poly-Vee (for multi-rib belts)

**Sleeving**

- Soft PVC, .08" thick, over 1.9" OD tube
- Polyurethane, 1.12" thick, over 1.9" OD tube
- Tapered segments, over 1.9" OD tube

**Roller Drive Length & Groove Locations**

- C+ = (Standard 3.40")
- D+ = (Standard 2.15")

**Shaft Material**

- Carbon steel, zinc plated
- Stainless steel

---

**2.5" RollerDrive**

**Application Data Sheet**

---

**Basic Information**

- Between Frame (inches):
- Desired Speed (fpm):
- Maximum Weight (lbs):

**Transported Material Type:**
- Cardboard
- Plastic
- Steel

**Maximum size (WxHxL inches):**

**Minimum size (WxHxL inches):**

**Conveyor Type:**
- Straight
- Curve
- Incline
- Decline

**Roller center to center (inches):**

**Drive Method**

- Grooved (for 3/16" OD o-rings)
- Poly-O grooved hub (for o-rings)
- Poly-Vee (for multi-rib belts)

**Sleeving**

- Soft PVC, .08" thick, over 2.5" OD tube
- Polyurethane, .12" thick, over 2.5" OD tube
- Tapered segments, over 2.5" OD tube

**Roller Drive Length & Sprocket Locations**

---

Contact factory for minimum C & D dimensions and for minimum distance between grooves.
**Roller Application Data Sheet**

Company name: [ ]

**Contact**

Phone: [ ]

Fax: [ ]

Email: [ ]

Address: [ ]

City: [ ]

State: [ ]

Zip: [ ]

Brief Application Description: (include speed, load, and operating conditions, i.e. wet, oily, washdown, cold, hot, etc)

Describe product being conveyed and number of rollers under product:

**Quantity required**

- Bearing Type
  - Commercial grade carbon steel
  - Precision steel
  - Precision stainless steel

- Tube Material
  - Carbon steel, galvanized
  - Carbon steel, mill finish
  - PVC
  - Aluminium
  - Other:

- Shaft Material
  - Carbon steel, mill finish
  - Carbon steel, zinc plated
  - Stainless steel
  - Aluminium
  - Other:

- Shaft Size & Shape
  - .192" round
  - 1/4" round
  - 5/16" round
  - 3/8" hex
  - 7/16" hex
  - 12 mm round
  - 1/2" round
  - 11/16" hex
  - 17 mm round
  - 20 mm round
  - 25/32" round

- Accessories
  - Sleeve PVC (.08" thick), over 1.9" OD tube, gray
  - Polyethylene (.12" thick), over 1.9" or 2.5" OD tube, orange
  - Tapered segments over 1.9" OD tube for curves, black

- Sprockets
  - Number of sprockets:
  - Chain number:
  - Number of teeth:
  - *Contact factory for assistance selecting sprockets

- Roller Length & Groove Locations

  SPRING COMPRESSES THIS DIRECTION

  (RL ±.03)

  Contact factory for minimum A & B dimensions and for minimum distance between grooves

  A=  B=  C=  D=  RL=

*(Check one): Enduser  Distributor  Integration/OEM

Date

**Shaft Configuration**

- Fixed
- Male threaded
- Female threaded
- End drilled & tapped
- Loose
- Taper Gold
- Taper Black
- Other

- Shaft extensions: L: [ ]  R: [ ]

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About Interroll

Established in 1959, Interroll has grown to become the world’s leading supplier of key equipment for material handling. Whether you’re handling boxes, pallets, parcels or soft goods, no other supplier has such a comprehensive range of solutions on offer.

This is why system integrators, OEMs and operators choose Interroll as a trusted partner for material handling installations, worldwide.

Interroll’s global reach ensures quick delivery and superior after-sale service for customers, no matter where they are. By helping increase our customers’ efficiency, we boost their competitiveness in today’s high-stress marketplace.

Interroll Corporation
3000 Corporate Drive
Wilmington, NC 28405
Tel: Toll Free 1-800-830-9028 or (910) 799-1100
Fax (910) 799-9626

interroll.us

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