

## Ralphs-Pugh Metal Rollers

Ralphs-Pugh metal rollers are available in a wide range of bearings, tubes and shaft combinations. Typical applications include; Food & Beverage, Agriculture, Chemical, Unit Handling, Bulk Handling, Distribution & Manufacturing. We specialize in all types of conveyor rollers for gravity and powered applications. **We can also manufacture custom rollers to your specifications.**

### Roller Selection Criteria:

To select the right roller for the operating environment the following items must be considered:

- Conveyed Items or Materials.  
*Size / Shape / Weight*
- Surface Characteristics of Materials
- Operating Environment  
*Heat / Humidity*  
*Exposure to Chemicals*

### Materials:

#### Tubes:

- Galvanized Steel, Carbon Steel, Stainless Steel, Aluminum

#### Tube Options:

- Lighter / Heavier Wall Thickness, Foam Filled

#### Tube Cover Options:

- Urethane Sleeves
- Urethane Tapers for turns
- HDPE (high-density polyethylene) for non-marring applications
- PVC Plastic

#### Tube Finishes:

- Polishing, Anodizing, Electropolishing, Passivation of Stainless Steel
- Other options available upon request.

#### Drive Options:

- Sprockets or Grooves
- One Way Clutch w/ 7/16" Hex or 11/16" Hex Shafts
- Rulmeca Style Reduced Diameter Sprocket Hub



## Drive Options (cont.):

- Timing Sprockets
- Removable Metal Sprocket Hubs
- V-Guides

## Shaft Configuration & Materials:

- Hex, Round - Dual spring loading is standard - Options: Fixed or Loose
- Carbon Steel, Stainless Steel, Aluminum
- Zinc and Nickel Plating are available.

## Shaft Extensions:

- 9/16" is standard for 3/16" round to 1/2" round or 7/16" hex
- 3/4" is standard for 5/8" - 11/16" round or hex and larger
- Measurements are from the hub of the bearing to the end of the shaft on each side

## Springs:

- Standard is dual spring loaded with shaft depressing to the hub of the bearing

## Shaft End Options:

- Plastic or Urethane Adapters over an Internal Metal Shaft
- Fixed Shaft, Through Shaft
- Threaded Ends, Drilled and Tapped Ends
- Drilled Holes
- Milled Flats
- D-Shaft Ends
- Plastic Flat Caps
- **Shaft Deburring is Standard on all Shaft Ends.**

## Bearings / Bushings:

### Commercial Grade / Non Precision:

### Plated Steel / Stamped Metal Housings

Designed for light to moderate loads and slower speeds, they contain hardened steel balls and raceways lubricated with light oil. Grease packed bearings may be ordered for driven systems. Example - 22A6

### Plated Steel / Plastic Housings

Designed for light to moderate loads, these commercial grade ball bearings have hardened steel balls and machined inner and outer raceways. They are available with light oil or grease lubricant for driven systems. Plastic housings are available in conductive or non-conductive material with or


without labyrinth seals. The labyrinth seal(s) provide protection to the bearing from dust, dirt, and airborne contaminants. These bearings are identified by a 2 in the prefix of the part number. Example - 2A6


### **Stainless Steel / Plastic Housings**

Designed for light to moderate loads, commercial grade stainless steel balls and raceways provide an excellent solution for corrosive operating environments. For maximum protection against contamination, some housings are available with labyrinth seal systems. Example - 2A7

### **Precision Grade / ABEC-1**

Designed for higher speeds and heavier loads, ABEC-1 precision bearings are available in chromium steel and optional 440, 304 or 316 stainless steel. ABEC-1 ball bearings and raceways are hardened, precision ground, and incorporate a ball retainer to eliminate bearing to bearing contact. Bearings are factory lubricated. Several seal/shield configurations are offered. Standard configuration is the Non-Contact Rubber Seal (LLB). Options include; the Contact Rubber Seal (2RS) and Non-Contact Metal Shields (ZZ). Bearing housings are available in metal or plastic. Plastic housings are made with conductive or non-conductive materials and available with or without labyrinth seals. Labyrinth seals provide additional bearing protection against dirt, dust, and other airborne contaminants. ABEC-1 bearings provide the highest load and speed capabilities, the lowest noise levels, and the longest life span of any available bearing unit.

 **ABEC-1 Precision bearings in stamped zinc plated metal housings:** Economical alternative to ABEC-1 bearings in plastic housings. These bearing inserts work well in higher load and speed applications while maintaining very low noise levels. The ABEC-1 bearing has hardened and ground balls and raceways, a ball retainer and is grease packed (25% pack) at the factory. Non-Contact Rubber Seals (LLB) protect the caged ball compliment. The stamped zinc plated housing on some variations incorporates a dust shield for added protection to the precision bearing. The life expectancy of a precision bearing is many times that of a non-precision bearing. For optimum performance and bearing life we recommend the bearing units be swedged into the metal tubes. These bearings have a 33 prefix in the part number. **Available for metal tubes only.** Example - 33RP

 **ABEC-1 Precision bearings in Machined metal housings:** The ultimate in load carrying capacity! Ideal for **SNUBBER ROLLERS** and **BELT WRAP ROLLER** applications demanding very high loads and limits. The ABEC-1 bearing has hardened and ground balls and raceways, a ball retainer and is grease packed at the factory. Non-Contact Rubber Seals (LLB) protect the caged ball compliment. The machined metal housings are welded into the tube. A plastic double labyrinth seal system covers the bearing for added protection. The life expectancy of a precision bearing is many times that of a non-precision bearing. These bearings have a 34 prefix in the part number. **Available for metal tubes only.** Example - 34B9

**Bushings:** Non ball bearing style units are designed for low speed, light to medium load applications. Bushing surface materials include; Ultra (Acetal plastic with Teflon Additives), CS2 Acetal, and ABS plastic. Insert materials include nylon, stainless steel and carbon steel. Bushing style rollers are ideal for sanitary, rust and corrosion resistance applications.

**Load Capacities:** Load capacities listed are based upon length of the roller (I.F.), actual load ratings for the bearing, tube deflection and shaft deflection for the materials listed. Calculations for load capacities of precision bearings allow for  $\frac{3}{4}$  of 1 degree of shaft deflection while commercial bearings allow for 1 degree of shaft deflection. ***Shaft deflection will increase as a roller becomes longer and roller loads will decrease substantially as the length of the roller increases. Please note that load capacities listed are for steel shafts. Load ratings for rollers with aluminum shafts must be reduced to 33% of the value listed.***

**Roller Length:** I.F. = Inside Frame distance. This measurement allows 1/16" of free play per side for a total of 1/8" per roller. O.A. = Overall roller length. This is the measurement from bearing hub to bearing hub of the roller. For calculation purposes I.F. - 1/8" = O.A.

### Ordering Information:

Ralphs-Pugh roller numbering system lists the bearing part number first, the tube part number second and the shaft part number last followed by the roller length.

### Example 1: Standard Roller

Bearing: Precision ABEC-1 bearing in a conductive plastic housing  
Tube: 1.90" outside diameter x .065" wall thickness galvanized steel tube  
Shaft: 7/16" hexagonal carbon steel spring-loaded shaft.  
Length: Must fit a frame measuring 18" inside frame distance (I.F.)  
Max. Load: Roller must be capable of handling a load of 165 lbs. per roller

### Solution:

Find the metal roller page designating 1.90" x .065" – 7/16" Hex - See page 77

Bearing part #: 3A6  
Tube part #: G46  
Shaft part #: C68  
Load per roller: Load capacity chart indicates roller is good up to 237 lbs. per roller  
**Roller part #: 3A6.G46.C68 x 18" I.F.**

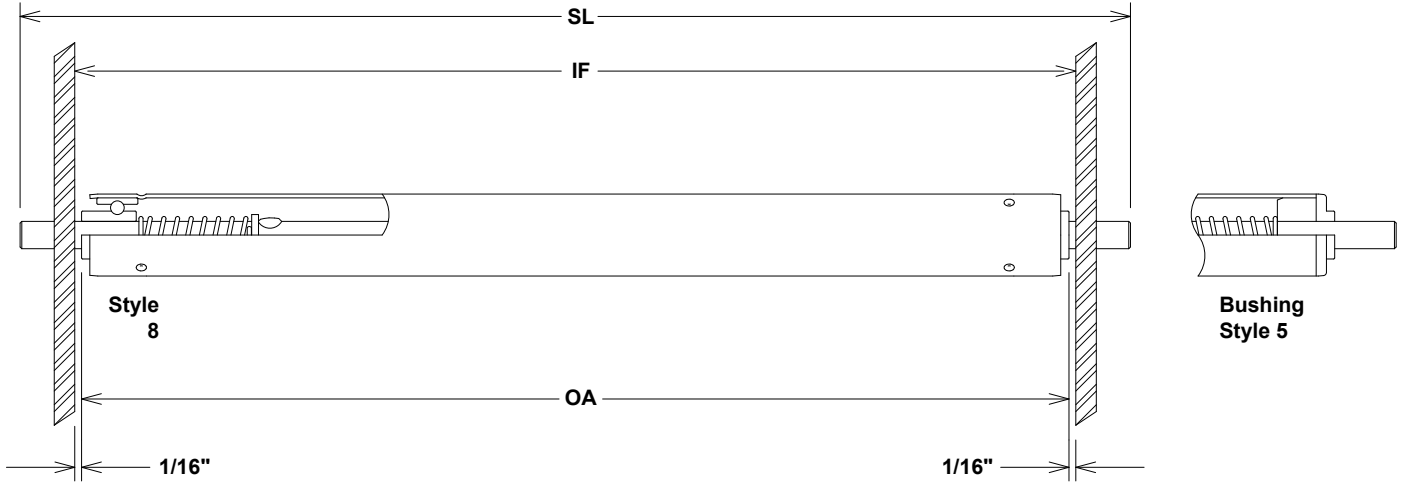
### Example 2: Rollers with options – (Grooves, Sprockets, Covers, Finishes, Special Shaft Lengths or Extensions, etc.)

### Solution:

Check Engineering section for specific data, information, or drawings. Inquire with Customer Service.

# Metal Rollers

## .75" Dia. x .035" Wall Thickness - 1/4" Round Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	Steel, Commercial	2F2	8 / Bearing mounted directly into tube - no seals
	Stainless Steel	2F3	8 / Bearing mounted directly into tube - no seals
	Bushing Style, UHMW	Inquire	5 / UHMW Plastic
	Bushing Style, Acetal	5C7	5 / Acetal Plastic

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C10	.75" x .035" Wall Carbon Steel
	Stainless Steel	S10	.75" x .035" Wall 304 Stainless Steel
	Aluminum	A10	.75" x .035" Wall Aluminum
	Galvanized Steel	G11	.75" x .035" Wall Galvanized Steel

Options:  
 Cover Options: Urethane Sleeves, HDPE  
 Finish Options: Polished, Anodized, Electropolished, Passivated

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C10	1/4" Round Carbon Steel Shaft
	Stainless Steel	S10	1/4" Round 304 Stainless Steel Shaft
	Aluminum	A10	1/4" Round Aluminum Shaft

Standard Extensions: 9/16"  
 Standard Springs: Dual spring loaded with shafts depressing to bearing hub  
 Options: Fixed shaft, through shaft, threaded (1/4 x 20), D-shaft

**Note:** Bushing style bearings are for intermittent use only.  
 Not recommended for powered systems.

### Load Capacity (LBS.)

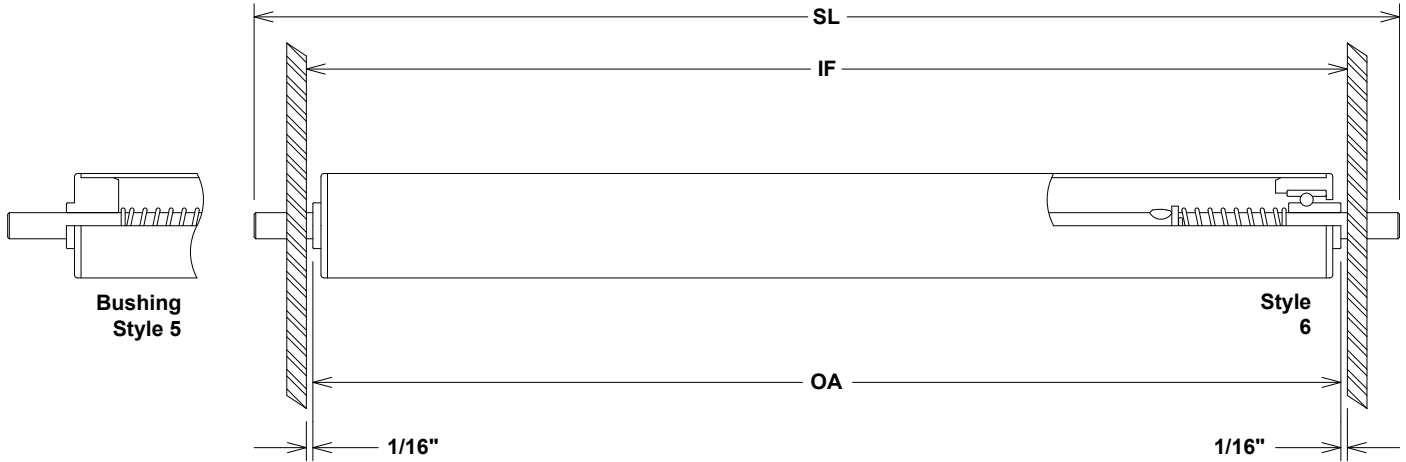
Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	2F2	2F3	BUSHING		2F2	2F3	BUSHING
12	62	62	60	33	32	32	32
15	62	62	60	36	***	***	***
18	59	59	59	39	***	***	***
21	51	51	51	42	***	***	***
24	44	44	44	45	***	***	***
27	39	39	39	48	***	***	***
30	35	35	35	51	***	***	***

\* Load capacity with aluminum tube or shaft is 33% of steel capacity.

\*\* Longer lengths are not recommended.

\*\*\* Capacities are for uniform loading - Reduce by 50% for point loading.

## 1.00" Dia. x .035" Wall Thickness - 1/4" Round Shaft



- Bearings:**
- |                       |               |   |
|-----------------------|---------------|---|
| <b>Type:</b>          | <b>Part #</b> | <b>Style / Description:</b>               |
| Steel, Commercial     | 2H2           | 6 / Conductive Plastic Housing - No Seals |
| Stainless Steel       | 2H1           | 7 / Conductive Plastic Housing - No Seals |
| Bushing Style, UHMW   | Inquire       | 5 / UHMW Plastic                          |
| Bushing Style, Acetal | Inquire       | 5 / Acetal Plastic                        |
- Options: Stainless steel balls in a plastic raceway and body
- Tube:**
- |                   |               |  |
|-------------------|---------------|--|
| <b>Materials:</b> | <b>Part #</b> | <b>Description:</b>                    |
| Carbon Steel      | C15           | 1.00" x .035" Wall Carbon Steel        |
| Stainless Steel   | S15           | 1.00" x .035" Wall 304 Stainless Steel |
| Aluminum          | A15           | 1.00" x .035" Wall Aluminum            |
- Options: .049" and .065" Wall Thickness Available - Inquire with Customer Service  
 Cover Options: Urethane sleeves, Urethane Tapered rollers, HDPE  
 Finish Options: Polished, Anodized, Electropolished, Passivated
- Shaft:**
- |                   |               |                                      |
|-------------------|---------------|--------------------------------------|
| <b>Materials:</b> | <b>Part #</b> | <b>Description:</b>                  |
| Carbon Steel      | C10           | 1/4" Round Carbon Steel Shaft        |
| Stainless Steel   | S10           | 1/4" Round 304 Stainless Steel Shaft |
| Aluminum          | A10           | 1/4" Round Aluminum Shaft            |
- Standard Extensions: 9/16"  
 Standard Springs: Dual spring loaded with shaft depressing to bearing hub  
 Options: Fixed shaft, through shaft, threaded (1/4 x 20), D-shaft

**Note:** Bushing style bearings are for intermittent use only.  
 Not recommended for powered systems.

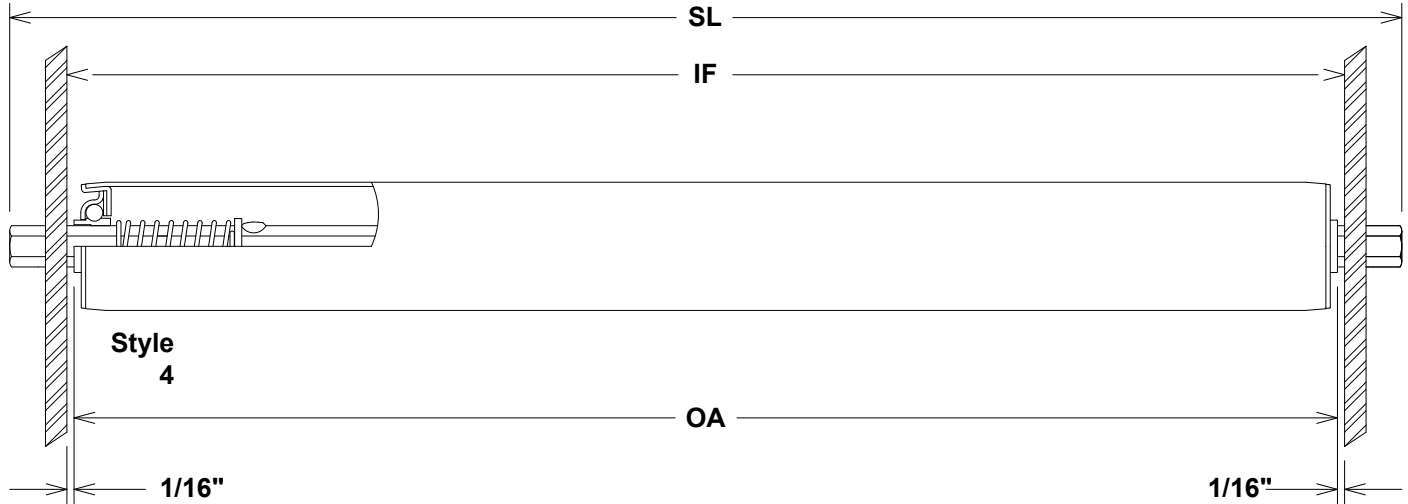
### Load Capacity (LBS.)

Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	2H2	2H1	BUSHING		2H2	2H1	BUSHING
12	62	62	60	33	32	32	32
15	62	62	60	36	***	***	***
18	59	59	59	39	***	***	***
21	51	51	51	42	***	***	***
24	44	44	44	45	***	***	***
27	39	39	39	48	***	***	***
30	35	35	35	51	***	***	***

\* Load capacity with aluminum tube or shaft is 33% of steel capacity.  
 \*\* Longer lengths are not recommended.  
 \*\*\* Capacities are for uniform loading - Reduce by 50% for point loading.

# Metal Rollers

## 1.00" Dia. x .049" Wall Thickness - 5/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> Steel, Commercial Stainless Steel	<b>Part #</b> 22G4 Inquire	<b>Style / Description:</b> 4 / Stamped Zinc Plated Steel
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<b>Tube:</b>	<b>Materials:</b> Carbon Steel Stainless Steel Aluminum Galvanized Steel	<b>Part #</b> C13 S13 A13 G13	<b>Description:</b> 1.00" x .049" Wall Carbon Steel 1.00" x .049" Wall 304 Stainless Steel 1.00" x .049" Wall Aluminum 1.00" x .049" Wall Galvanized Steel
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Options: .065" Wall Thickness Available - Inquire with Customer Service  
 Cover Options: Urethane Sleeves, Urethane Tapered Rollers, HDPE  
 Finish Options: Polished, Anodized, Electropolished, Passivated

<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel	<b>Part #</b> C14 S14	<b>Description:</b> 5/16" Hex Carbon Steel Shaft 5/16" Hex 304 Stainless Steel Shaft
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Standard Extensions: 9/16"  
 Standard Springs: Dual spring loaded with shaft depressing to bearing hub  
 Options: Fixed shaft, through shaft, holes

### Load Capacity (LBS.)

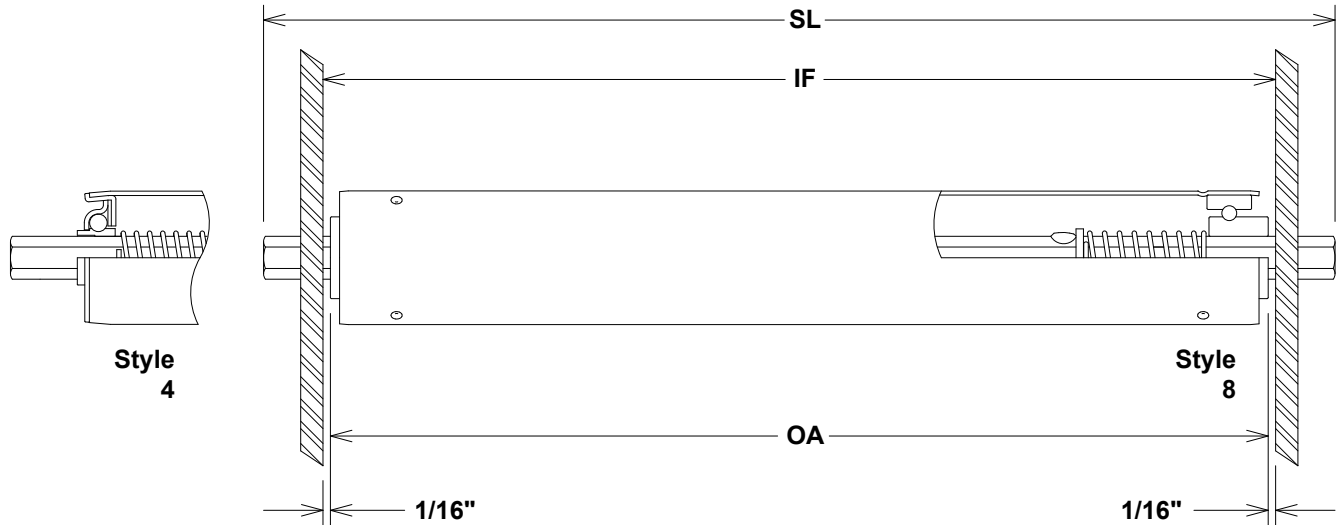
Frame I.F.	Bearing # 22G4	Frame I.F.	Bearing # 22G4
12	60	33	***
15	60	36	***
18	60	39	***
21	60	42	***
24	60	45	***
27	60	48	***
30	60	51	***

\* Load capacity with aluminum tube is 33% of steel capacity.

\*\* Longer lengths are not recommended.

\*\*\* Capacities are for uniform loading - Reduce by 50% for point loading.

## 1.12" Dia. x .065" Wall Thickness - 5/16" Hex Shaft



- |                  |   |  |   |
|------------------|---|--|---|
| <b>Bearings:</b> | <b>Type:</b><br>Stamped Commercial Steel, Commercial<br>Stainless Steel | <b>Part #</b><br>Inquire<br>2K7<br>Inquire   | <b>Style / Description:</b><br>4 / Stamped zinc plated commercial<br>8 / Bearing mounted directly into tube - No Seals<br>8 / Bearing mounted directly into tube - No Seals |
| <b>Tube:</b>     | <b>Materials:</b><br>Carbon Steel<br>Galvanized Steel                   | <b>Part #</b><br>C16<br>G16  | <b>Description:</b><br>1.12" x .065" Wall Carbon Steel<br>1.12" x .065" Wall Galvanized Steel   |
|                  | Options:  | Stainless steel and aluminum available in .035" and .049" wall thickness upon inquiry. |   |
|                  | Cover Options:  | Urethane Sleeves, Urethane Tapered Rollers, HDPE                                       |   |
|                  | Finish Options:   | Polished, Anodized, Electropolished, Passivated  |   |
| <b>Shaft:</b>    | <b>Materials:</b><br>Carbon Steel<br>Stainless Steel                    | <b>Part #</b><br>C14<br>S14  | <b>Description:</b><br>5/16" Hex Carbon Steel Shaft<br>5/16" Hex 304 Stainless Steel Shaft  |
|                  | Standard Extensions:  | 9/16"  |   |
|                  | Standard Springs:   | Dual spring loaded with shaft depressing to bearing hub                                |   |
|                  | Options:  | Fixed shaft, through shaft, holes  |   |

### Load Capacity (LBS.)

Frame I.F.	Bearing # 2K7	Frame I.F.	Bearing # 2K7
12	60	33	60
15	60	36	60
18	60	39	60
21	60	42	60
24	60	45	60
27	60	48	60
30	60	51	60

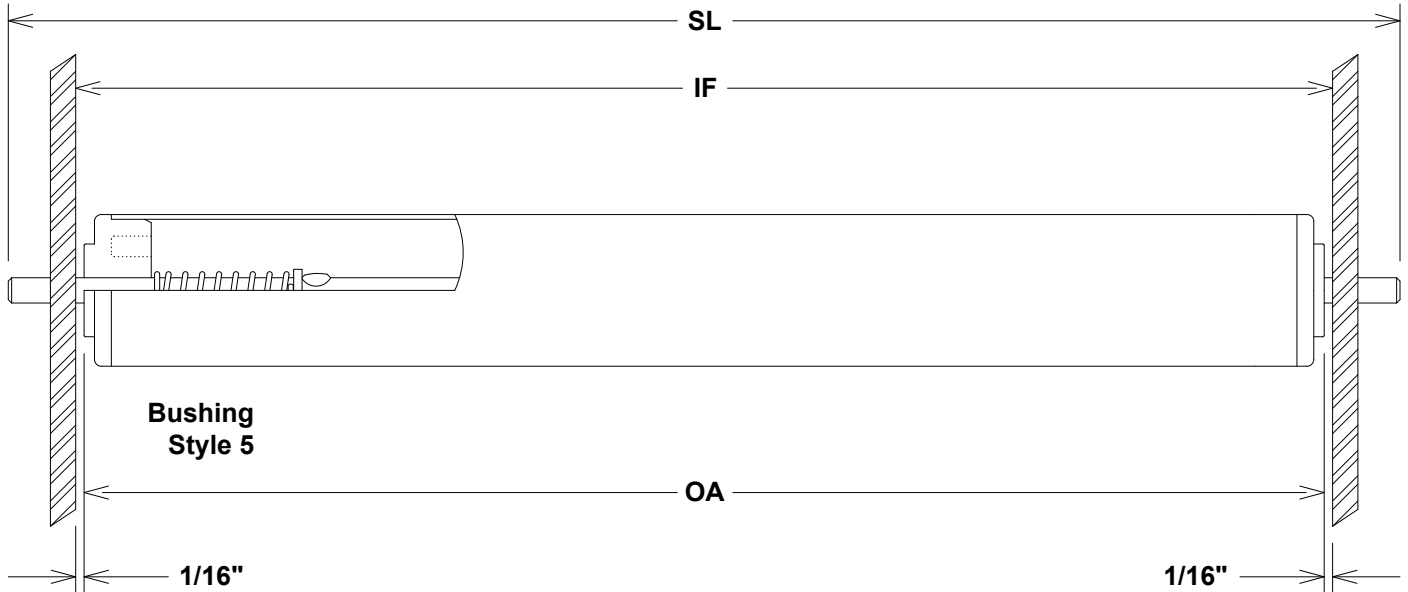
\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce by 50% for point loading.



# Metal Rollers

## 1.18" Dia. x .055" Wall Thickness - 3/16" Round Shaft



<b>Bearings:</b>	<b>Type:</b> Bushing Style, UHMW Bushing Style, Acetal Bushing Style, Ultra	<b>Part #</b> Inquire 5F8 5F1	<b>Style / Description:</b> 5 / UHMW Plastic 5 / Acetal Plastic 5 / Ultra Acetal Plastic
<b>Tube:</b>	<b>Materials:</b> Aluminum	<b>Part #</b> A14	<b>Description:</b> 1.18" x .055" Wall Aluminum - Clear Anodized
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel	<b>Part #</b> C08	<b>Description:</b> 3/16" Round Carbon Steel Shaft
	Standard Extensions:	9/16"	
	Standard Springs:	Dual spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, D-shaft	

**Note:** Bushing style bearings are for intermittent use only.  
Not recommended for powered systems.

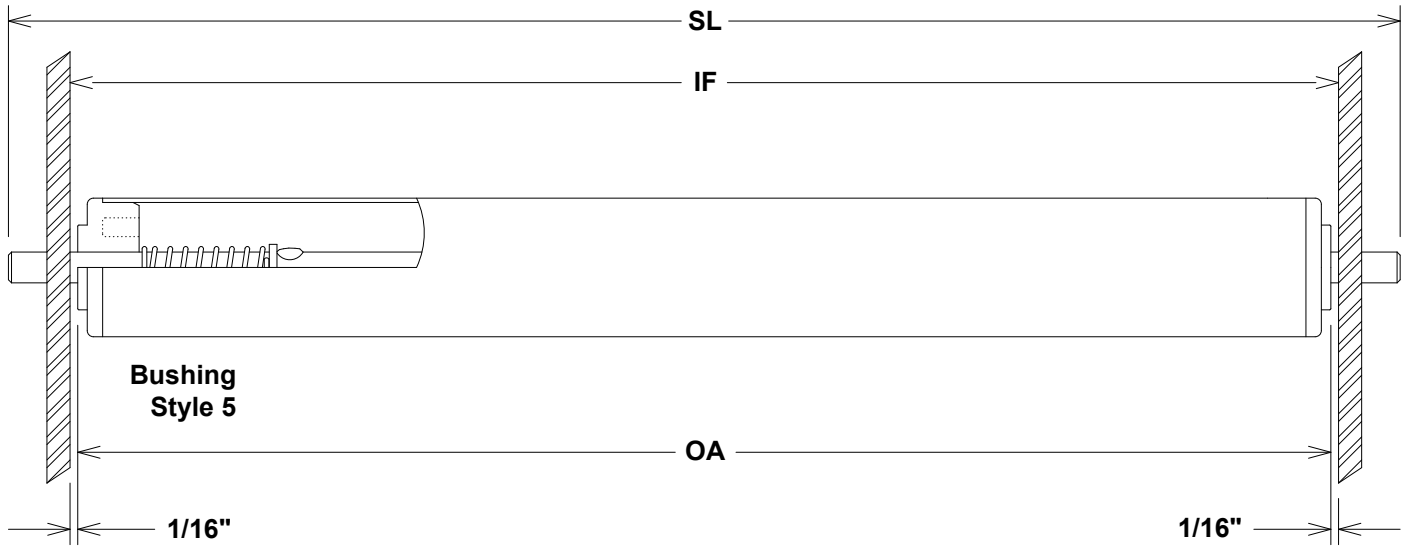
### Load Capacity (LBS.)

Frame I.F.	BUSHING	Frame I.F.	BUSHING
12	34	33	***
15	27	36	***
18	22	39	***
21	19	42	***
24	17	45	***
27	15	48	***
30	13	51	***

\* Longer lengths are not recommended.

\*\* Capacities are for uniform loading - Reduce by 50% for point loading.

## 1.18" Dia. x .055" Wall Thickness - 1/4" Round Shaft



<b>Bearings:</b>	<b>Type:</b> Bushing Style, UHMW Bushing Style, Acetal Bushing Style, Ultra	<b>Part #</b> Inquire Inquire 5F2	<b>Style / Description:</b> 5 / UHMW Plastic 5 / Acetal Plastic 5 / Ultra Acetal Plastic
<b>Tube:</b>	<b>Materials:</b> Aluminum	<b>Part #</b> A14	<b>Description:</b> 1.18" x .055" Wall Aluminum - Clear Anodized
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel Aluminum	<b>Part #</b> C10 S10 A10	<b>Description:</b> 1/4" Round Carbon Steel Shaft 1/4" Round 304 Stainless Steel Shaft 1/4" Round Aluminum Shaft
	Standard Extensions:	9/16"	
	Standard Springs:	Dual spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, D-shaft, threaded	

**Note:** Bushing style bearings are for intermittent use only.  
Not recommended for powered systems.

### Load Capacity (LBS.)

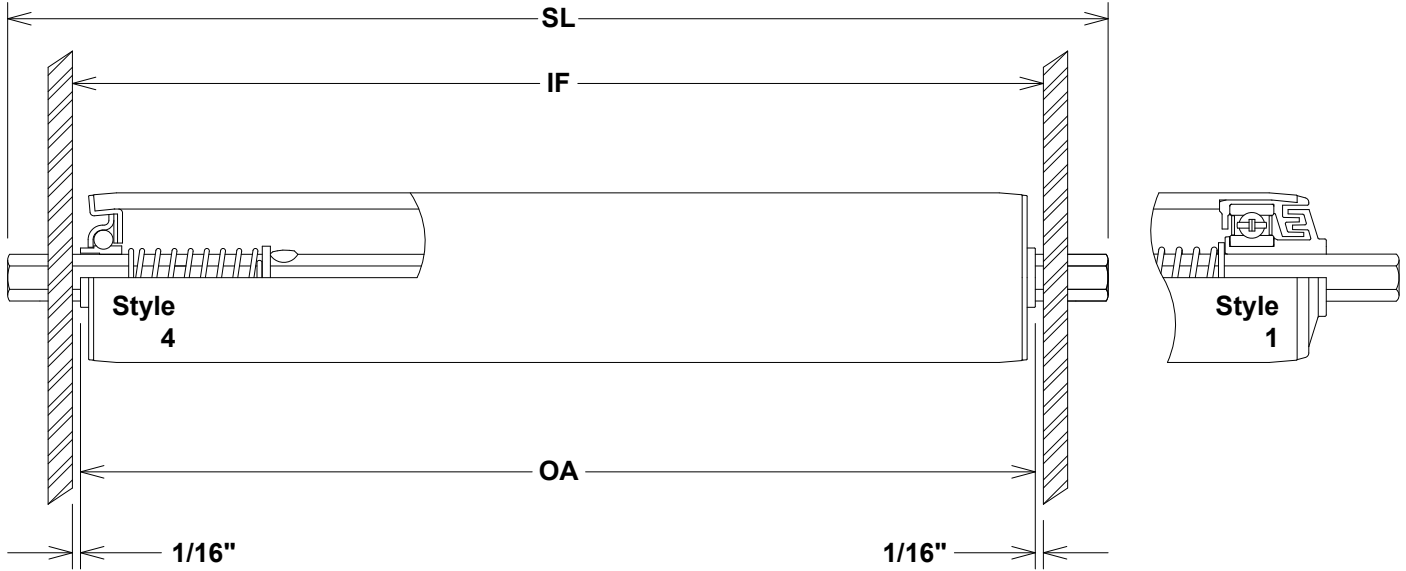
Frame I.F.	BUSHING	Frame I.F.	BUSHING
12	60	33	24
15	54	36	***
18	44	39	***
21	38	42	***
24	33	45	***
27	29	48	***
30	26	51	***

\* Longer lengths are not recommended.

\*\* Capacities are for uniform loading - Reduce by 50% for point loading.

# Metal Rollers

## 1.31" Dia. x .133" Wall Thickness - 5/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> Stamped Commercial ABEC-1 Precision	<b>Part #</b> 22L4 3M6	<b>Style / Description:</b> 4 / Stamped Zinc Plated Steel 1 / Conductive plastic - Double labyrinth seal construction
<b>Tube:</b>	<b>Materials:</b> Carbon Steel	<b>Part #</b> C20	<b>Description:</b> 1" Schedule 40 Pipe - 1.31" O.D. x .133" Wall Carbon Steel
	Standard Finish:	Mill Finish	
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel	<b>Part #</b> C14 S14	<b>Description:</b> 5/16" Hex Carbon Steel Shaft 5/16" Hex 304 Stainless Steel Shaft
	Standard Extensions:	9/16"	
	Standard Springs:	Dual spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, holes	

### Load Capacity (LBS.)

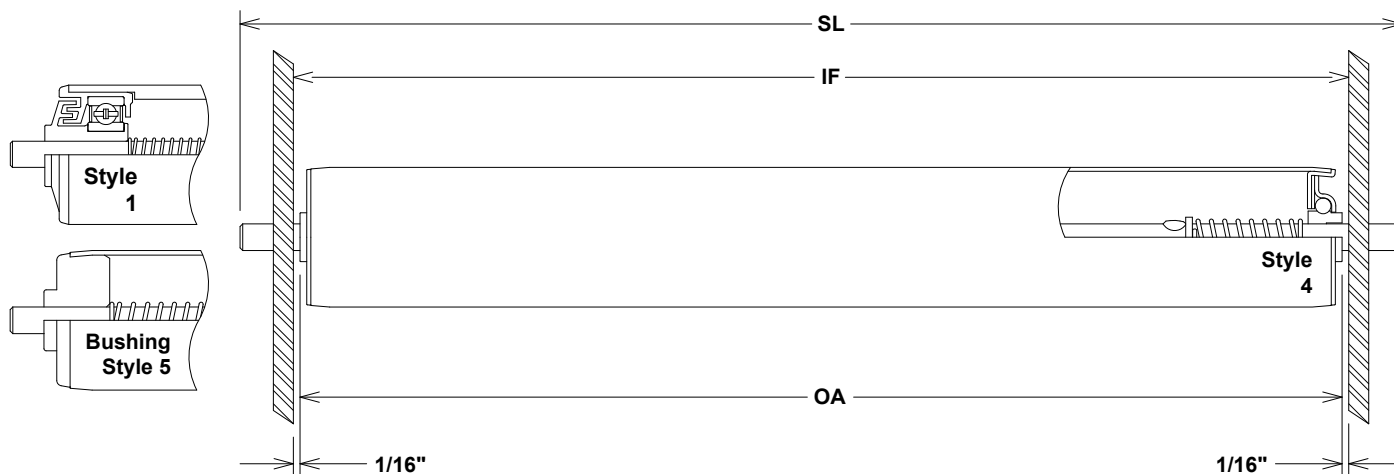
Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	3M6	22L4		3M6	22L4
12	112	90	33	39	90
15	88	90	36	35	88
18	73	90	39	32	81
21	62	90	42	***	***
24	54	90	45	***	***
27	47	90	48	***	***
30	43	90	51	***	***

\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce by 50% for point loading.

# Metal Rollers

## 1.37" Dia. x .049" Wall Thickness - 1/4" Round Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	Stamped Commercial	22M2	4 / Stamped Zinc Plated Steel
	Stainless Steel	Inquire	1 / Conductive plastic - Double labyrinth seal construction
	Bushing Style, Ultra ABEC-1 Precision	5G5 3N2	5 / Non conductive Ultra 1 / Conductive Plastic Housing

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C25	1.37" x .049" Wall Carbon Steel
	Galvanized Steel	G25	1.37" x .049" Wall Galvanized Steel
	Stainless Steel	S27	1.37" x .049" Wall 304 Stainless Steel
	Aluminum	A25	1.37" x .049" Wall Aluminum

Options: .065" Wall Thickness Available Upon Request  
 Drive Options: Sprockets  
 Cover Options: Urethane Sleeves, Urethane Tapered Rollers, HDPE  
 Finish Options: Electropolished, Passivated, Polished, Anodized

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C10	1/4" Round Carbon Steel Shaft
	Stainless Steel	S10	1/4" Round 304 Stainless Steel Shaft
	Aluminum	A10	1/4" Round Aluminum Shaft

Standard Extensions: 9/16"  
 Standard Springs: Dual spring loaded with shaft depressing to bearing hub  
 Options: Fixed shaft, through shaft, threaded, D-shaft

**Note:** Bushing style bearings are for intermittent use only.  
 Not recommended for powered systems

### Load Capacity (LBS.)

Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	3N2	22M2	5G5		3N2	22M2	5G5
12	94	90	60	33	18	32	32
15	59	72	60	36	***	***	***
18	43	59	59	39	***	***	***
21	34	51	51	42	***	***	***
24	28	44	44	45	***	***	***
27	24	39	39	48	***	***	***
30	21	35	35	51	***	***	***

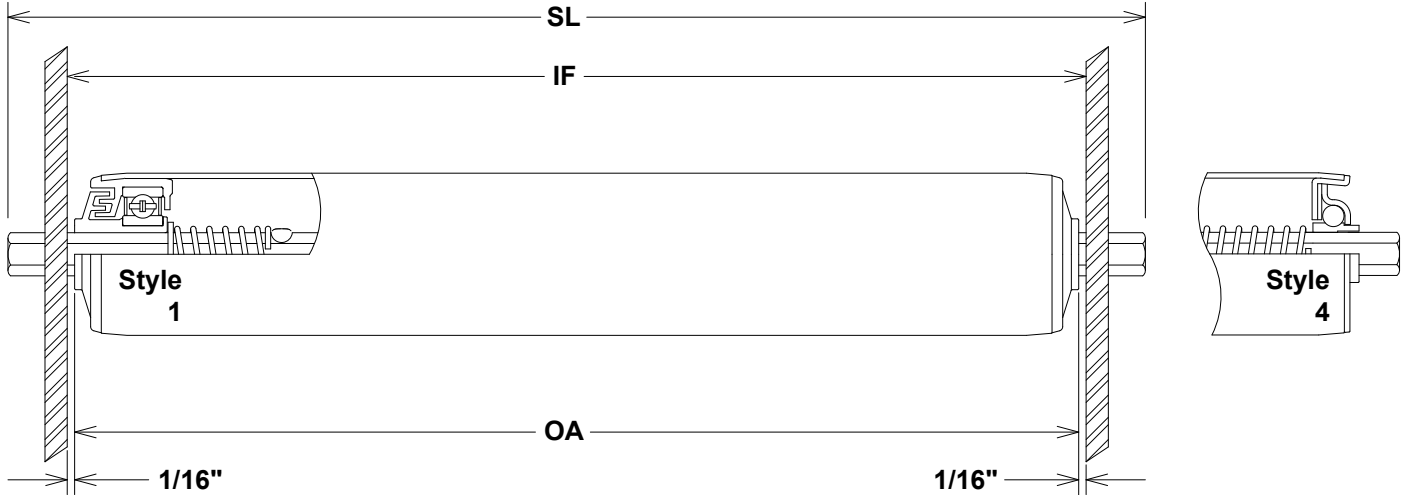
\* Reduce capacity by 33% for aluminum tube or shaft.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading only - Reduce by 50% for point loading

# Metal Rollers

## 1.37" Dia. x .049" Wall Thickness - 5/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision Stamped Commercial Stainless Steel	<b>Part #</b> 3M3 22M4 Inquire	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction 4 / Stamped zinc plated steel 1 / Conductive plastic - Double labyrinth seal construction
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<b>Tube:</b>	<b>Materials:</b> Carbon Steel Galvanized Steel Stainless Steel Aluminum	<b>Part #</b> C25 G25 S27 A25	<b>Description:</b> 1.37" x .049" Wall Carbon Steel 1.37" x .049" Wall Galvanized Steel 1.37" x .049" Wall 304 Stainless Steel 1.37" x .049" Wall Aluminum
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Drive Options: Sprockets  
 Cover Options: Urethane Sleeves, Urethane Tapered Rollers, HDPE  
 Finish Options: Electropolished, Passivated, Polished, Anodized

<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel	<b>Part #</b> C14 S14	<b>Description:</b> 5/16" Hex Carbon Steel Shaft 5/16" Hex 304 Stainless Steel Shaft
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Standard Extensions: 9/16"  
 Standard Springs: Dual spring loaded with shaft depressing to bearing hub  
 Options: Fixed shaft, through shaft, holes

### Load Capacity (LBS.)

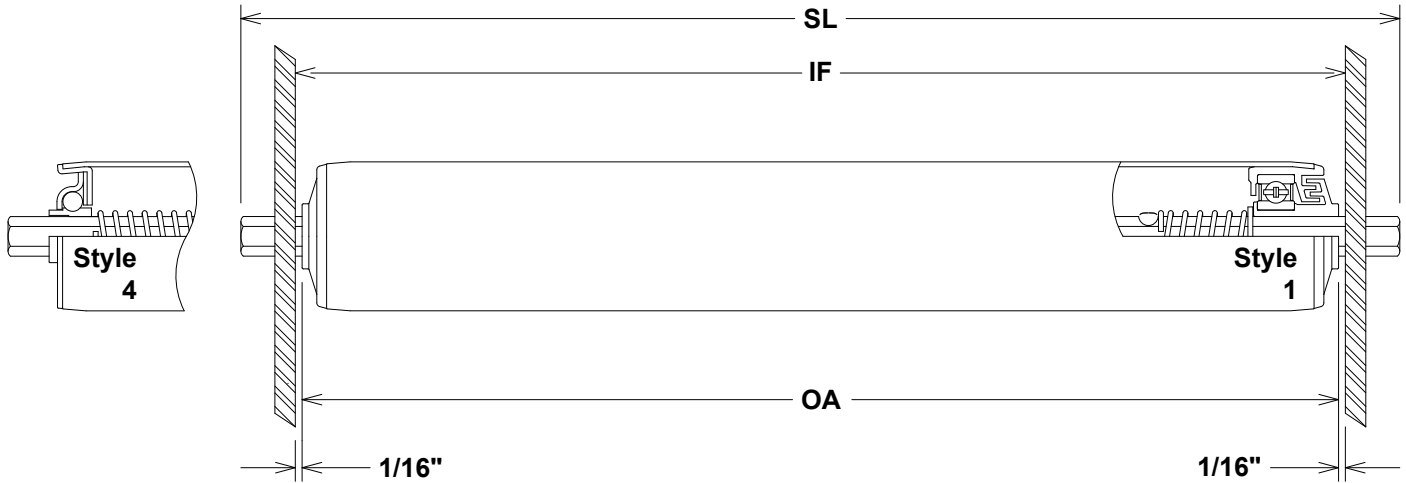
Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	3M3	22M4		3M3	22M4
12	100	94	33	34	87
15	79	94	36	31	80
18	65	94	39	29	74
21	55	94	42	27	68
24	48	94	45	25	64
27	42	94	48	23	60
30	38	94	51	22	56

\* Load capacity with aluminum tube is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

## 1.37" Dia. x .065" Wall Thickness - 5/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3M1	1 / Conductive plastic - Double labyrinth seal construction
	Stamped Commercial	Inquire	4 / Stamped zinc plated steel
	Stainless Steel	Inquire	1 / Conductive plastic - Double labyrinth seal construction

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C24	1.37" x .065" Wall Carbon Steel
	Galvanized Steel	G24	1.37" x .065" Wall Galvanized Steel
	Stainless Steel	S24	1.37" x .065" Wall 304 Stainless Steel
	Aluminum	A24	1.37" x .065" Wall Aluminum

**Drive Options:** Grooves, Sprockets, One Way Clutch  
**Cover Options:** Urethane Sleeves, Urethane Tapered Rollers, HDPE  
**Finish Options:** Electropolished, Passivated, Polished, Anodized

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C14	5/16" Hex Carbon Steel Shaft
	Stainless Steel	S14	5/16" Hex 304 Stainless Steel Shaft

**Standard Extensions:** 9/16"  
**Standard Springs:** Dual spring loaded with shaft depressing to bearing hub  
**Options:** Fixed shaft, through shaft, holes

### Load Capacity (LBS.)

Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	3M1	Stamped Commercial		3M1	Stamped Commercial
12	100	120	33	34	69
15	79	120	36	31	63
18	65	120	39	29	58
21	55	110	42	27	54
24	48	96	45	25	50
27	42	85	48	23	47
30	38	76	51	22	44

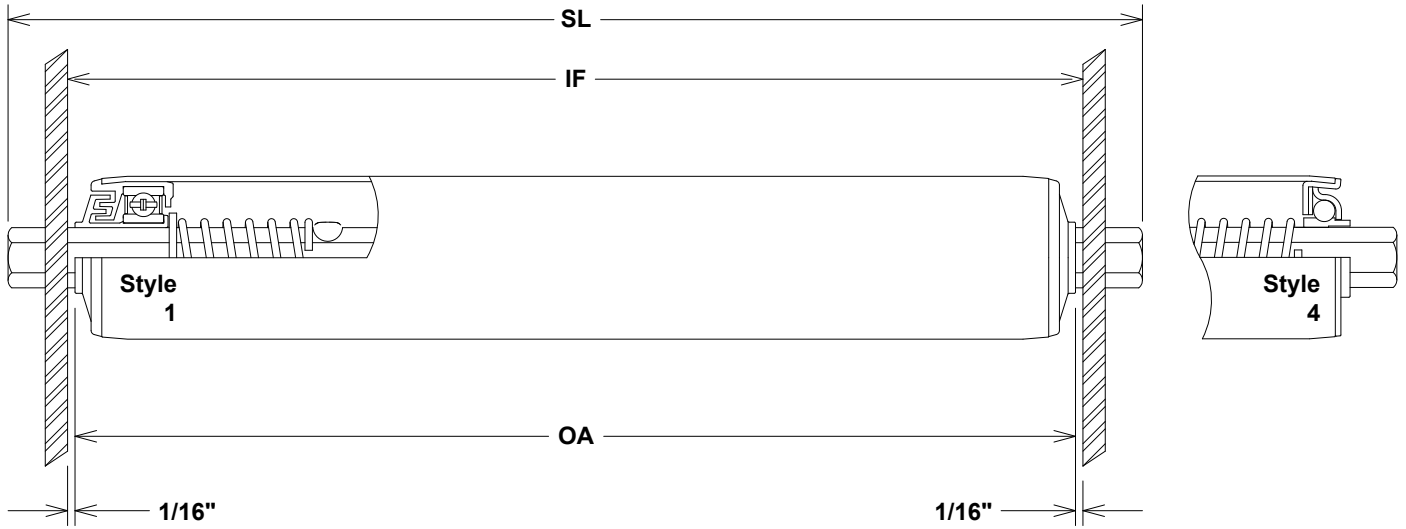
\* Load capacity with aluminum tube is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 1.37" Dia. x .065" Wall Thickness - 7/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3M7	1 / Conductive plastic - Double labyrinth seal construction
	Stamped Commercial	22S4	4 / Stamped zinc plated steel
	Stainless Steel	Inquire	1 / Conductive plastic - Double labyrinth seal construction

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C24	1.37" x .065" Wall Carbon Steel
	Galvanized Steel	G24	1.37" x .065" Wall Galvanized Steel
	Stainless Steel	S24	1.37" x .065" Wall 304 Stainless Steel
	Aluminum	A24	1.37" x .065" Wall Aluminum

Drive Options:	Grooves, Sprockets, One Way Clutch
Cover Options:	Urethane Sleeves, Urethane Tapered Rollers, HDPE
Finish Options:	Electropolished, Passivated, Polished, Anodized

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C68	7/16" Hex Carbon Steel Shaft
	Stainless Steel	S70	7/16" Hex 304 Stainless Steel Shaft
	Aluminum	A66	7/16" Hex Aluminum Shaft

Standard Extensions:	9/16"
Standard Springs:	Dual spring loaded with shaft depressing to bearing hub
Options:	Fixed shaft, through shaft, holes, drilled and tapped, thread

### Load Capacity (LBS.)

Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	3M7	22S4		3M7	22S4
12	135	170	33	80	170
15	135	170	36	70	170
18	135	170	39	61	170
21	135	170	42	53	170
24	130	170	45	46	170
27	110	170	48	40	168
30	94	170	51	35	148

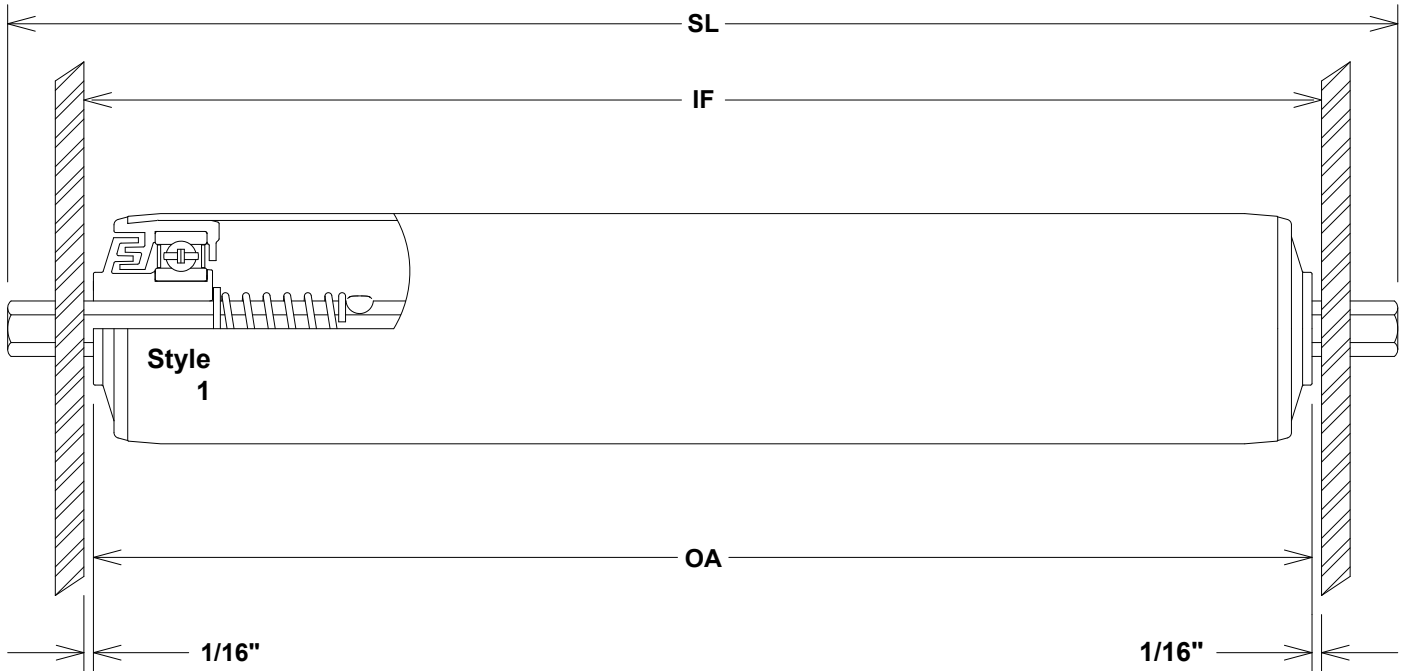
\* Load capacity with aluminum tube or shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 1.51" Dia. x .065" Wall Thickness - 5/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision Stainless Steel Steel, Commercial	<b>Part #</b> 3H3 2V5 2P5	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction 1 / Conductive plastic - Double labyrinth seal construction 1 / Conductive plastic - Double labyrinth seal construction
------------------	--	------------------------------------	--

<b>Tube:</b>	<b>Materials:</b> Galvanized Steel	<b>Part #</b> G29	<b>Description:</b> 1.51" x .065" Wall Galvanized Steel
	Drive Options:	Grooves, Sprockets, One Way Clutch	
	Cover Options:	Urethane Sleeves, Urethane Tapered Rollers, HDPE	

<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel	<b>Part #</b> C14 S14	<b>Description:</b> 5/16" Hex Carbon Steel Shaft 5/16" Hex 304 Stainless Steel Shaft
	Standard Extensions:	9/16"	
	Standard Springs:	Dual spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, holes	

### Load Capacity (LBS.)

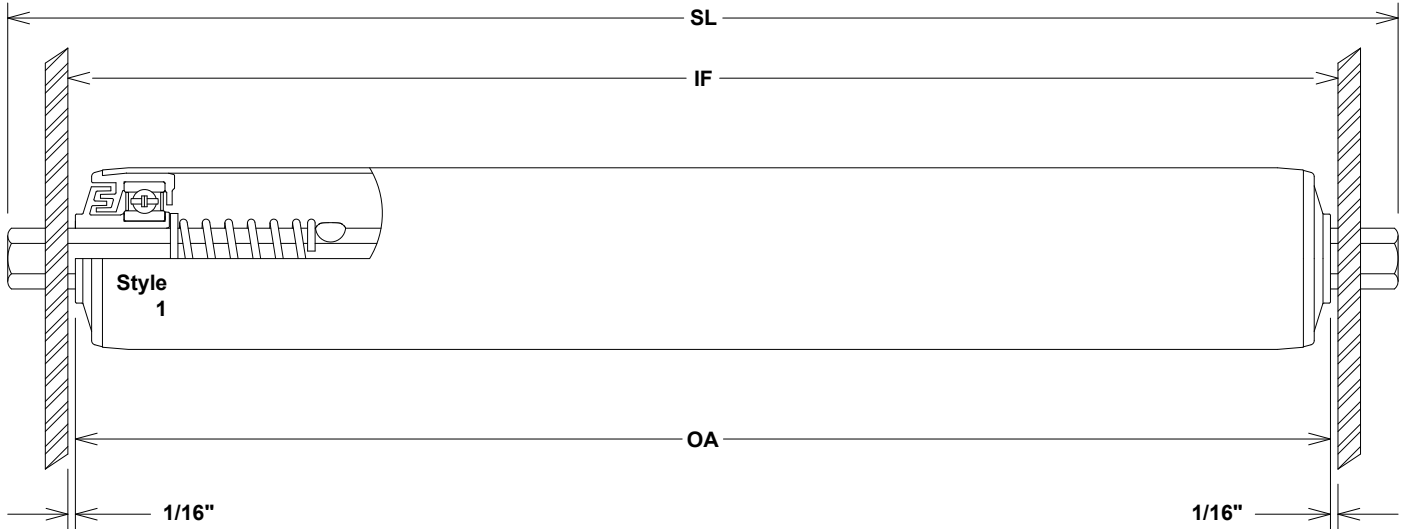
Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	3H3	2V5	2P5		3H3	2V5	2P5
12	100	120	120	33	34	46	46
15	79	105	105	36	31	42	42
18	65	86	86	39	29	38	38
21	55	73	73	42	27	36	36
24	48	64	64	45	25	33	33
27	42	56	56	48	23	31	31
30	38	50	50	51	22	29	29

\* Longer lengths are available upon request.



# Metal Rollers

## 1.51" Dia. x .065" Wall Thickness - 7/16" Hex Shaft



- Bearings:**
- |              |                   |               |     |                             |   |
|--------------|-------------------|---------------|-----|-----------------------------|---|
| <b>Type:</b> | ABEC-1 Precision  | <b>Part #</b> | 3A8 | <b>Style / Description:</b> | 1 / Conductive plastic - Double labyrinth seal construction |
|              | Stainless Steel   |               | 205 |                             | 1 / Conductive plastic - Double labyrinth seal construction |
|              | Steel, Commercial |               | 2P7 |                             | 1 / Conductive plastic - Double labyrinth seal construction |
- Tube:**
- |                   |                  |               |     |                     |                                     |
|-------------------|------------------|---------------|-----|---------------------|-------------------------------------|
| <b>Materials:</b> | Galvanized Steel | <b>Part #</b> | G29 | <b>Description:</b> | 1.51" x .065" Wall Galvanized Steel |
|-------------------|------------------|---------------|-----|---------------------|-------------------------------------|
- Drive Options: Grooves, Sprockets, One Way Clutch  
 Cover Options: Urethane Sleeves, Urethane Tapered Rollers, HDPE
- Shaft:**
- |                       |                 |               |     |                     |  |
|-----------------------|-----------------|---------------|-----|---------------------|--|
| <b>Materials:</b>     | Carbon Steel    | <b>Part #</b> | C68 | <b>Description:</b> | 7/16" Hex Carbon Steel Shaft   |
|                       | Stainless Steel |               | S70 |                     | 7/16" Hex 304 Stainless Steel Shaft  |
|                       | Aluminum        |               | A66 |                     | 7/16" Hex Aluminum Shaft   |
| <b>Options:</b>       | Zinc Plated     |               |     |                     |  |
| ** Plastic Adapters   | C62             |               |     |                     | 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft        |
| *** Urethane Adapters | UC62            |               |     |                     | 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft        |
| ** Plastic Adapters   | S62             |               |     |                     | 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft |
| *** Urethane Adapters | US62            |               |     |                     | 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft |
- \*\* Max 50 Lbs Per Roller  
 \*\*\* Max 100 Lbs Per Roller
- Standard Extensions: 1/2" - 9/16" with adapters, 9/16" all others  
 Standard Springs: Dual spring loaded with shaft depressing to bearing hub  
 Options: Fixed shaft, through shaft, holes, drilled and tapped

### Load Capacity (LBS.)

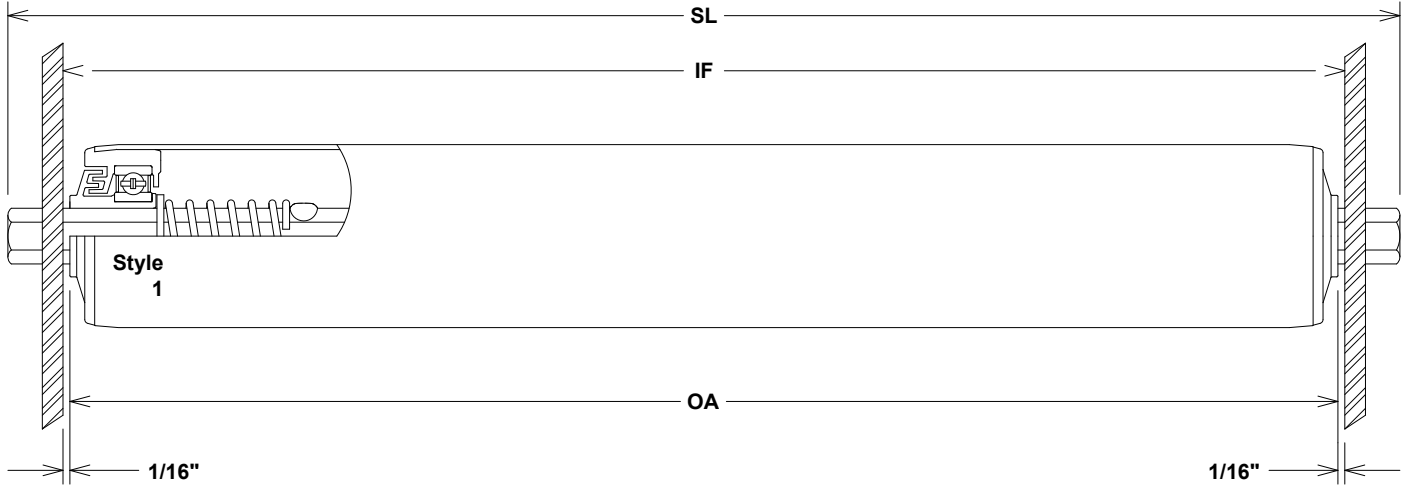
Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	3A8	205	2P7		3A8	205	2P7
12	190	120	120	33	125	116	116
15	190	120	120	36	115	106	106
18	190	120	120	39	106	98	98
21	190	120	120	42	98	90	90
24	175	120	120	45	91	84	84
27	155	120	120	48	85	79	79
30	139	120	120	51	80	74	74

\* Load capacity with aluminum shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

# Metal Rollers

## 1.66" Dia. x .065" Wall Thickness - 7/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision Stainless Steel Steel, Commercial	<b>Part #</b> 3A9 2O4 2O3	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction 1 / Conductive plastic - Double labyrinth seal construction 1 / Conductive plastic - Double labyrinth seal construction
<b>Tube:</b>	<b>Materials:</b> Galvanized Steel	<b>Part #</b> G35	<b>Description:</b> 1.66" x .065" Wall Galvanized Steel
	Drive Options: Cover Options:	Grooves, Sprockets, One Way Clutch Urethane Sleeves, Urethane Tapered Rollers, HDPE	
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel Aluminum Options: ** Plastic Adapters ** Urethane Adapters ** Plastic Adapters ** Urethane Adapters ** Max 50 Lbs per roller *** Max 100 Lbs per roller Standard Extensions: Standard Springs: Options:	<b>Part #</b> C68 S70 A66 Zinc Plated C62 UC62 S62 US62	<b>Description:</b> 7/16" Hex Carbon Steel Shaft 7/16" Hex 304 Stainless Steel Shaft 7/16" Hex Aluminum Shaft 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft
		1/2" - 5/8" with adapters, 9/16" on all others Dual spring loaded with shaft depressing to bearing hub Fixed shaft, through shaft, holes, drilled and tapped	

### Load Capacity (LBS.)

Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	3A9	2O4	2O3		3A9	2O4	2O3
12	190	120	120	33	125	116	116
15	190	120	120	36	115	106	106
18	190	120	120	39	106	98	98
21	190	120	120	42	98	90	90
24	175	120	120	45	91	84	84
27	155	120	120	48	85	79	79
30	139	120	120	51	80	74	74

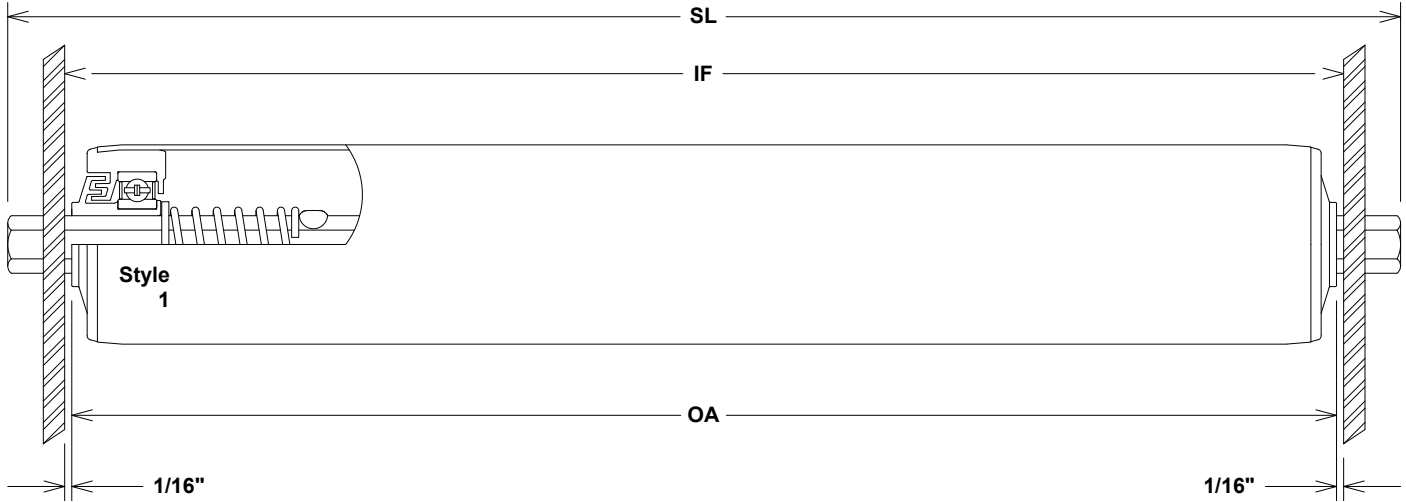
\* Load capacity with aluminum shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 1.75" Dia. x .065" Wall Thickness - 7/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision Steel, Commercial Stainless Steel	<b>Part #</b> 3D6 2O1 2O8	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction 1 / Conductive plastic - Double labyrinth seal construction 1 / Conductive plastic - Double labyrinth seal construction
<b>Tube:</b>	<b>Materials:</b> Carbon Steel	<b>Part #</b> C39	<b>Description:</b> 1.75" x .065" Wall Carbon Steel
	Drive Options: Cover Options: Finish Options:	Grooves, Sprockets, One Way Clutch Urethane Sleeves, Urethane Tapered Rollers, PVC, HDPE Zinc Plated	
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel Aluminum Options: ** Plastic Adapters *** Urethane Adapters ** Plastic Adapters *** Urethane Adapters ** Max 50 Lbs Per Roller *** Max 100 Lbs Per Roller Standard Extensions: Standard Springs: Options:	<b>Part #</b> C68 S70 A66 Zinc Plated C62 UC62 S62 US62	<b>Description:</b> 7/16" Hex Carbon Steel Shaft 7/16" Hex 304 Stainless Steel Shaft 7/16" Hex Aluminum Shaft 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft
		1/2" - 5/8" with adapters, 9/16" on all others Dual spring loaded with shaft depressing to bearing hub Fixed shaft, through shaft, holes, drilled and tapped	

### Load Capacity (LBS.)

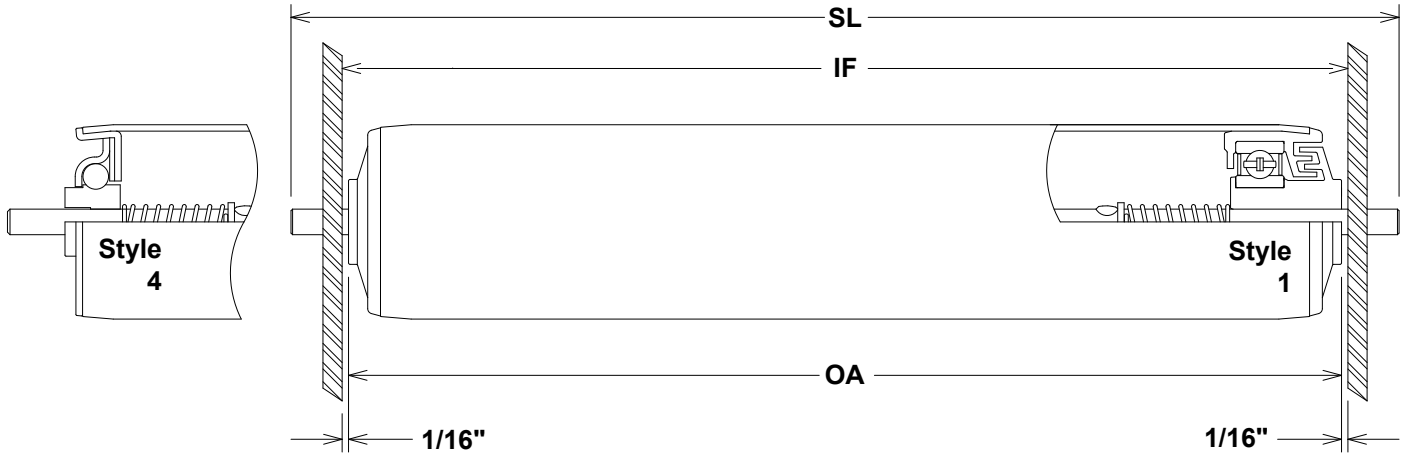
Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	3D6	2O1 / 2O8		3D6	2O1 / 2O8
12	200	174	33	125	116
15	200	174	36	115	106
18	200	174	39	106	98
21	200	174	42	98	90
24	175	163	45	91	84
27	155	144	48	85	79
30	139	129	51	80	74

\* Load capacity with aluminum shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

## 1.90" Dia. x .065" Wall Thickness - 1/4" Round Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	Inquire	1 / Conductive plastic - Double labyrinth seal construction
	Steel, Commercial	2C4	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	2C2	1 / Conductive plastic - Double labyrinth seal construction
	Stamped Commercial	Inquire	4 / Stamped zinc plated steel

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C46	1.90" x .065" Wall Carbon Steel
	Galvanized Steel	G46	1.90" x .065" Wall Galvanized Steel
	Stainless Steel	S46	1.90" x .065" Wall 304 Stainless Steel
	Aluminum	A46	1.90" x .065" Wall Aluminum

**Drive Options:** Grooves, Sprockets  
**Cover Options:** Urethane Sleeves, Urethane Tapered Rollers, HDPE  
**Finish Options:** Electropolished, Passivated, Polished, Anodized

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C10	1/4" Round Carbon Steel Shaft
	Stainless Steel	S10	1/4" Round 304 Stainless Steel Shaft
	Aluminum	A10	1/4" Round Aluminum Shaft
	Standard Extensions:	9/16"	
	Standard Springs:	Dual spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, threaded (1/4 x 20), D-shaft	

### Load Capacity (LBS.)

Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	2C4	2C2		2C4	2C2
12	41	41	33	14	14
15	32	32	36	13	13
18	26	26	39	12	12
21	22	22	42	11	11
24	19	19	45	10	10
27	17	17	48	9	9
30	15	15	51	9	9

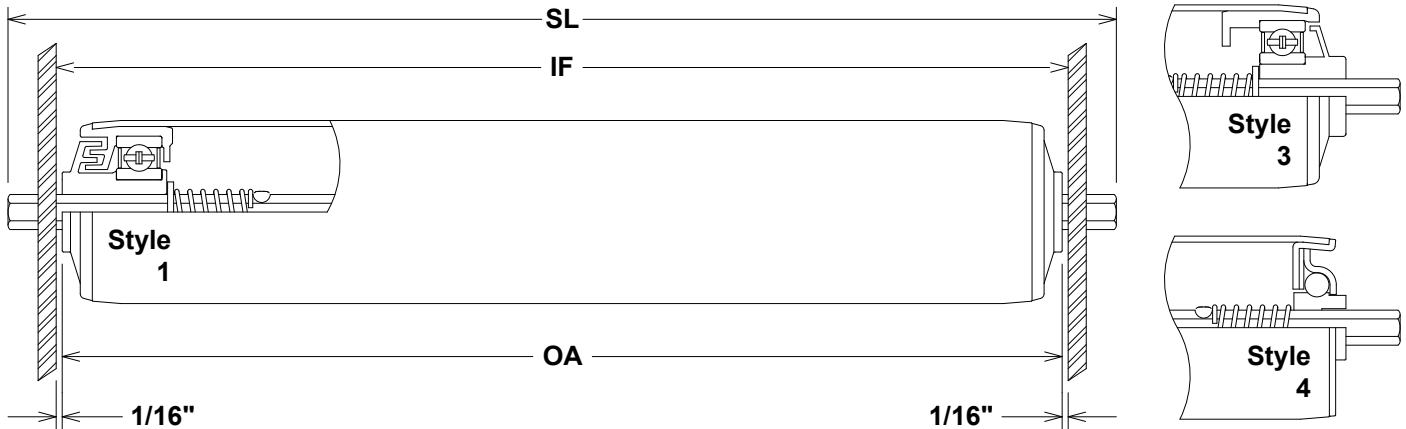
\* Load capacity with aluminum tube or shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading

# Metal Rollers

## 1.90" Dia. x .065" Wall Thickness - 5/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3A0	1 / Conductive plastic - Double labyrinth seal construction
	ABEC-1 Precision	3W2	3 / Conductive plastic - Without labyrinth seal construction
	Steel, Commercial	2I3	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	2V6	1 / Conductive plastic - Double labyrinth seal construction
	Stamped Commercial	22I3	4 / Stamped zinc plated steel

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C46	1.90" x .065" Wall Carbon Steel
	Galvanized Steel	G46	1.90" x .065" Wall Galvanized Steel
	Stainless Steel	S46	1.90" x .065" Wall 304 Stainless Steel
	Aluminum	A46	1.90" x .065" Wall Aluminum

**Drive Options:** Grooves, Sprockets  
**Cover Options:** Urethane Sleeves, Urethane Tapered Rollers, HDPE  
**Finish Options:** Electropolished, Passivated, Polished, Anodized

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C14	5/16" Hex Carbon Steel Shaft
	Stainless Steel	S14	5/16" Hex 304 Stainless Steel Shaft
	<b>Options:</b>	Zinc Plated	
	<b>Standard Extensions:</b>	9/16"	
	<b>Standard Springs:</b>	Dual spring loaded with shaft depressing to bearing hub	
	<b>Options:</b>	Fixed shaft, through shaft, holes	

### Load Capacity (LBS.)

Frame	Bearing #					Frame	Bearing #					
	I.F.	3A0	3W2	2I3	2V6		22I3	I.F.	3A0	3W2	2I3	2V6
12	100	100	134	134	134	33	34	34	46	46	46	46
15	79	79	105	105	105	36	31	31	42	42	42	42
18	65	65	86	86	86	39	29	29	38	38	38	38
21	55	55	73	73	73	42	27	27	36	36	36	36
24	48	48	64	64	64	45	25	25	33	33	33	33
27	42	42	56	56	56	48	23	23	31	31	31	31
30	38	38	50	50	50	51	22	22	29	29	29	29

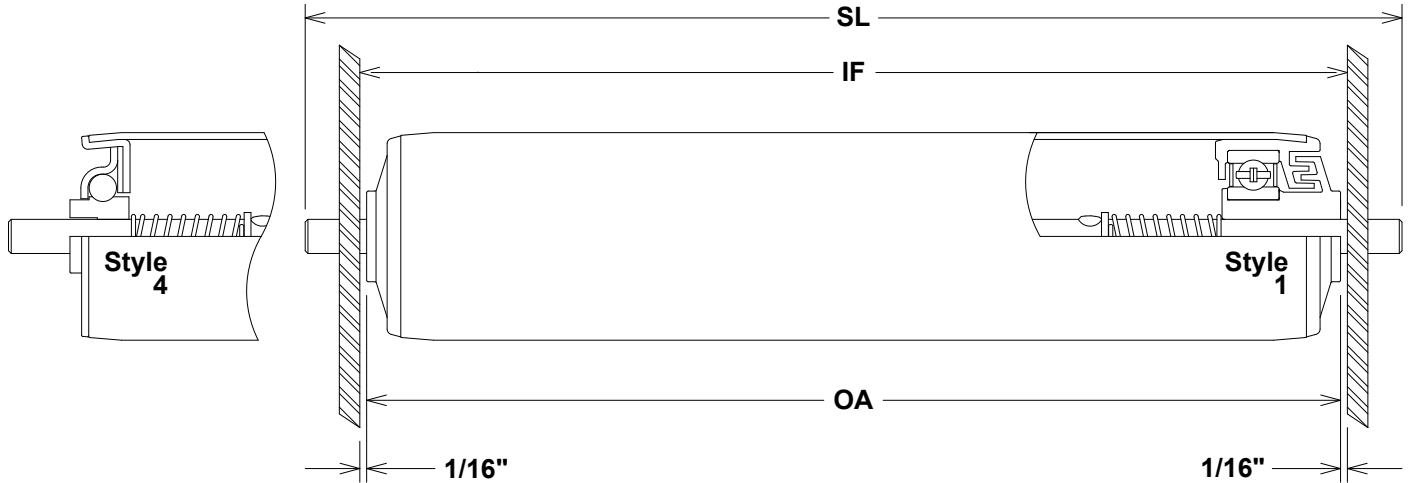
\* Load capacity with aluminum tube is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading

# Metal Rollers

## 1.90" Dia. x .065" Wall Thickness - 5/16" Round Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3A0	1 / Conductive plastic - Double labyrinth seal construction
	Steel, Commercial	2I3	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	2V6	1 / Conductive plastic - Double labyrinth seal construction
	Stamped Commercial	22I3	4 / Stamped zinc plated steel

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C46	1.90" x .065" Wall Carbon Steel
	Galvanized Steel	G46	1.90" x .065" Wall Galvanized Steel
	Stainless Steel	S46	1.90" x .065" Wall 304 Stainless Steel
	Aluminum	A46	1.90" x .065" Wall Aluminum

**Drive Options:** Grooves, Sprockets  
**Cover Options:** Urethane Sleeves, Urethane Tapered Rollers, HDPE  
**Finish Options:** Electropolished, Passivated, Polished, Anodized

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C16	5/16" Round Carbon Steel Shaft
	Stainless Steel	S16	5/16" Round 304 Stainless Steel Shaft
	Standard Extensions:	9/16"	
	Standard Springs:		Dual spring loaded with shaft depressing to bearing hub
	Options:		Fixed shaft, through shaft, holes, threaded, D-Shaft

### Load Capacity (LBS.)

Frame I.F.	Bearing #				Frame I.F.	Bearing #			
	3A0	2I3	2V6	22I3		3A0	2I3	2V6	22I3
12	84	112	112	112	33	29	38	38	38
15	66	87	87	87	36	26	35	35	35
18	54	72	72	72	39	24	32	32	32
21	46	61	61	61	42	22	30	30	30
24	40	53	53	53	45	21	28	28	28
27	35	47	47	47	48	19	26	26	26
30	31	42	42	42	51	18	24	24	24

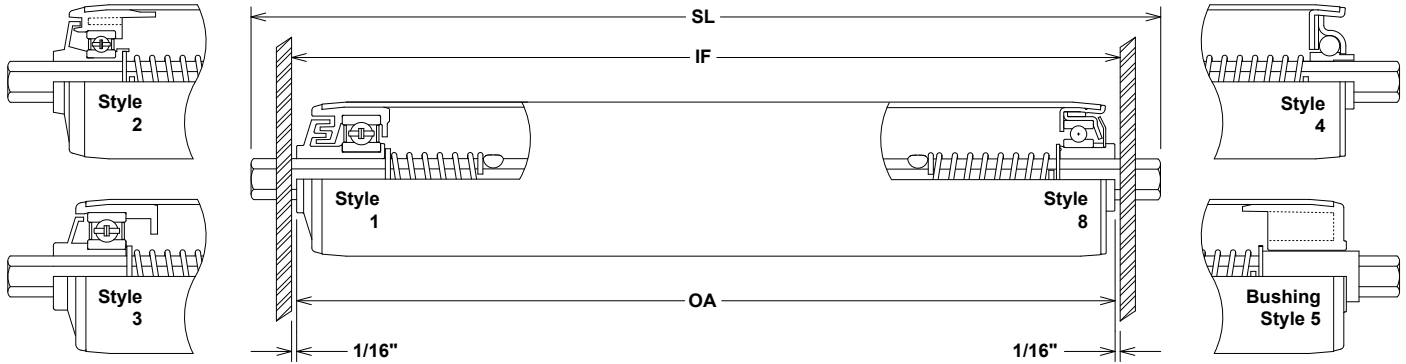
\* Load capacity with aluminum tube is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading

# Metal Rollers

## 1.90" Dia. x .065" Wall Thickness - 7/16" Hex Shaft



**Bearings:**

Type:	Part #	Style / Description:
ABEC-1 Precision	3A6 / 3H5	1 / Conductive plastic - Double labyrinth seal construction
ABEC-1 Precision	3W1	3 / Conductive plastic - Without labyrinth seal construction
ABEC-1 Precision	3RP	2 / Conductive plastic - Single labyrinth seal construction
ABEC-1 Precision	33RP	8 / Stamped Zinc Plated Metal Housing
Steel, Commercial	2A6	1 / Conductive plastic - Double labyrinth seal construction
Stainless Steel	2A7	1 / Conductive plastic - Double labyrinth seal construction
Stamped Commercial	22A6	4 / Stamped zinc plated steel
Bushing Style, Stainless	5B5	5 / Conductive acetal or non conductive "Ultra"
Bushing Style, Nylon	5A7	5 / Conductive acetal or non conductive "Ultra"

**Tube:**

Materials:	Part #	Description:
Carbon Steel	C46	1.90" x .065" Wall Carbon Steel
Galvanized Steel	G46	1.90" x .065" Wall Galvanized Steel
Stainless Steel	S46	1.90" x .065" Wall 304 Stainless Steel
Aluminum	A46	1.90" x .065" Wall Aluminum
Drive Options:		Grooves, Sprockets, One Way Clutch
Cover Options:		Urethane Sleeves, Urethane Tapered Rollers, HDPE
Finish Options:		Electropolished, Passivated, Polished, Anodized
Other Options:		Foam Filled for Noise Reduction

**Shaft:**

Materials:	Part #	Description:
Carbon Steel	C68	7/16" Hex Carbon Steel Shaft
Stainless Steel	S70	7/16" Hex 304 Stainless Steel Shaft
Aluminum	A66	7/16" Hex Aluminum Shaft
** Plastic Adapters	C62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft
*** Urethane Adapters	UC62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft
** Plastic Adapters	S62	7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft
*** Urethane Adapters	US62	7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft
** Max 50 Lbs Per Roller	*** Max 100 Lbs Per Roller	
Standard Extensions:		1/2" - 5/8" with adapters, 9/16" all others
Standard Springs:		Dual spring loaded with shaft depressing to bearing hub
Options:		Fixed Shaft, Through Shaft, Holes, Drilled and Tapped, Zinc Plated

**Load Capacity (LBS.)**

Frame I.F.	Bearing #							
	3A6	3W1	3RP / 3H5	33RP	2A6	2A7	22A6	BUSHING
12	368	368	297	334	174	174	270	100
15	289	289	228	261	174	174	270	100
18	237	237	185	214	174	174	270	100
21	201	201	156	182	156	156	268	100
24	175	175	134	158	134	134	233	100
27	155	155	118	139	118	118	206	100
30	139	139	105	125	105	105	185	94
33	125	125	95	113	95	95	167	85
36	115	115	87	103	87	87	153	78
39	106	106	80	95	80	80	141	71
42	98	98	74	88	74	74	130	66
45	91	91	69	82	69	69	121	61
48	85	85	64	77	64	64	114	57
51	80	80	60	72	60	60	107	54

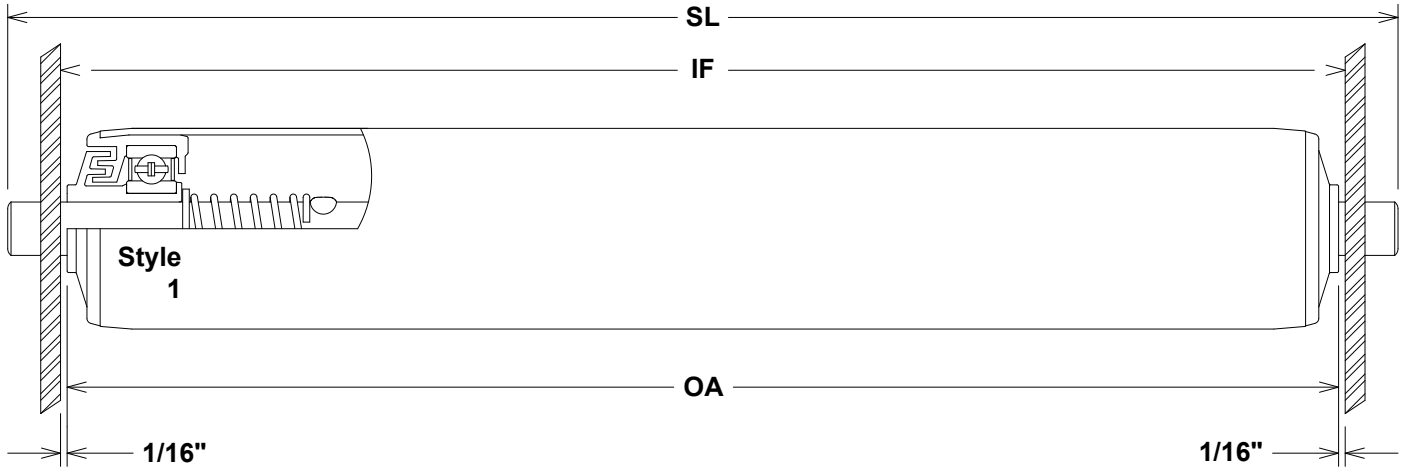
\* Load capacity with aluminum tube or shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 1.90" Dia. x .065" Wall Thickness - 1/2" Round Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3A2	1 / Conductive plastic - Double labyrinth seal construction
	Steel, Commercial	2E1	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	2C3	1 / Conductive plastic - Double labyrinth seal construction

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C46	1.90" x .065" Wall Carbon Steel
	Galvanized Steel	G46	1.90" x .065" Wall Galvanized Steel
	Stainless Steel	S46	1.90" x .065" Wall 304 Stainless Steel
	Aluminum	A46	1.90" x .065" Wall Aluminum

Drive Options: Grooves, Sprockets  
 Cover Options: Urethane Sleeves, Urethane Tapered Rollers, HDPE  
 Finish Options: Electropolished, Passivated, Polished, Anodized

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C30	1/2" Round Carbon Steel Shaft
	Stainless Steel	S35	1/2" Round 304 Stainless Steel Shaft
	Options:	Zinc Plated	
	Standard Extensions:	9/16"	
	Standard Springs:	Dual spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, holes, threaded, drilled and tapped, milled flats, D-Shaft	

### Load Capacity (LBS.)

Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	3A2	2E1	2C3		3A2	2E1	2C3
12	368	174	174	33	125	95	95
15	289	174	174	36	115	87	87
18	237	174	174	39	106	80	80
21	201	156	156	42	98	74	74
24	175	134	134	45	91	69	69
27	155	118	118	48	85	64	64
30	139	105	105	51	80	60	60

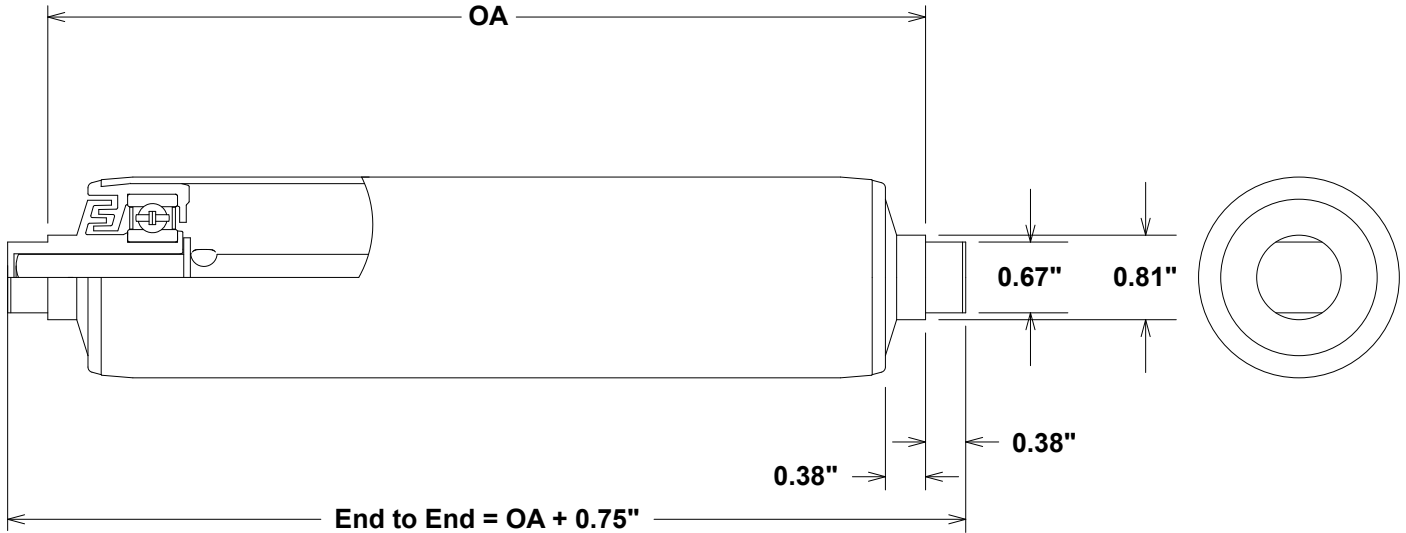
\* Load capacity with aluminum tube is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading



## 1.90" Dia. x .065" Wall Thickness - .67" Plastic Flat Caps



**Bearings:**      **Type:** ABEC-1 Precision      **Part #** 3A7      **Style / Description:** 1 / Conductive plastic - Double labyrinth seal construction

**Tube:**      **Materials:**      **Part #**      **Description:**  
 Carbon Steel      C46      1.75" x .065" Wall Carbon Steel  
 Galvanized Steel      G46      1.75" x .065" Wall Galvanized Steel  
 Stainless Steel      S46      1.75" x .065" Wall 304 Stainless Steel  
 Aluminum      A46      1.75" x .065" Wall Aluminum

Drive Options: Grooves, Sprockets  
 Cover Options: Urethane Sleeves, Urethane Tapered Rollers, PVC, HDPE  
 Finish Options: Electropolished, Passivated, Polished, Anodized

**Shaft:**      **Materials:**      **Part #**      **Description:**  
 \*\* Plastic Flat Caps      C64      Uses 7/16" hex carbon steel internal shaft  
 \*\* Plastic Flat Caps      S64      Uses 7/16" hex stainless steel internal shaft

\*\* Max 50 Lbs Per Roller  
 Standard Extensions: 3/8" Fixed  
 Standard Springs: No Springs

### Load Capacity (LBS.)

Frame I.F.	Bearing # 3A7	Frame I.F.	Bearing # 3A7
12	50	33	46
15	50	36	41
18	50	39	38
21	50	42	35
24	50	45	32
27	50	48	30
30	50	51	28

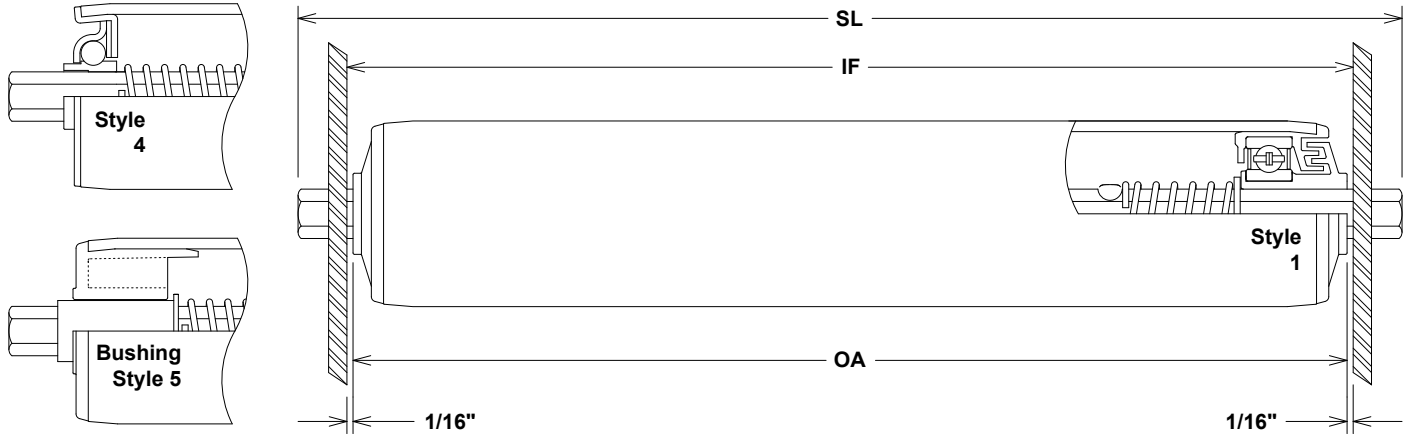
\* Load capacity with aluminum tube 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading

# Metal Rollers

## 1.90" Dia. x .109" Wall Thickness - 7/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3A1	1 / Conductive plastic - Double labyrinth seal construction
	Steel, Commercial	2A8	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	2R3	1 / Conductive plastic - Double labyrinth seal construction
	Stamped Commercial	22A8	4 / Stamped zinc steel plated steel
	Bushing Style, Stainless	5B5	5 / Conductive acetal or non conductive "Ultra"
	Bushing Style, Nylon	5A7	5 / Conductive acetal or non conductive "Ultra"
<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C42	1.90" x .109" Wall Carbon Steel
	Galvanized Steel	G42	1.90" x .109" Wall Galvanized Steel
	Stainless Steel	S42	1.90" x .109" Wall 304 Stainless Steel
	Drive Options:		Sprockets, One Way Clutch
	Cover Options:		Urethane Sleeves, Urethane Tapered Rollers, HDPE
	Finish Options:		Electropolished, Passivated, Polished
<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C68	7/16" Hex Carbon Steel Shaft
	Stainless Steel	S70	7/16" Hex 304 Stainless Steel Shaft
	Aluminum	A66	7/16" Hex Aluminum Shaft
	** Plastic adapters	C62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft
	*** Urethane adapters	UC62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft
	** Plastic adapters	S62	7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft
	*** Urethane adapters	US62	7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft

\*\* Max load 50 lbs. per roller      \*\*\* Max load 100 lbs. per roller  
 Standard Extensions: 1/2" - 5/8" with adapters, 9/16" all others  
 Standard Springs: Dual spring loaded with shaft depressing to bearing hub  
 Options: Fixed shaft, through shaft, holes, drilled and tapped, zinc plated

**Note:** Bushing style bearings are for intermittent use only. Not recommended for powered systems.

### Load Capacity (LBS.)

Frame I.F.	Bearing #					Frame I.F.	Bearing #				
	3A1	2A8	2R3	22A8	BUSHING		3A1	2A8	2R3	22A8	BUSHING
12	368	174	174	575	100	33	125	108	108	170	85
15	289	174	174	400	100	36	115	99	99	155	78
18	237	174	174	325	100	39	106	91	91	145	71
21	201	174	174	280	100	42	98	84	84	130	66
24	175	152	152	240	100	45	91	78	78	121	61
27	155	134	134	210	100	48	85	73	73	114	57
30	139	120	120	190	94	51	80	69	69	107	54

\* Load capacity with aluminum shaft is 33% of steel capacity.  
 \*\* Longer lengths are available upon request.  
 \*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 1.90" Dia. x .120" Wall Thickness - 7/16" Hex Shaft



- Bearings:**
- |                          |               |   |
|--------------------------|---------------|---|
| <b>Type:</b>             | <b>Part #</b> | <b>Style / Description:</b>                                 |
| ABEC-1 Precision         | 3F2           | 1 / Conductive plastic - Double labyrinth seal construction |
| Steel, Commercial        | 2J5           | 1 / Conductive plastic - Double labyrinth seal construction |
| Stainless Steel          | 2J3           | 1 / Conductive plastic - Double labyrinth seal construction |
| Stamped Commercial       | 22J5          | 4 / Stamped zinc plated steel                               |
| Bushing Style, Stainless | 5E8           | 5 / Conductive acetal or non conductive "Ultra"             |
- Tube:**
- |                   |               |  |
|-------------------|---------------|--|
| <b>Materials:</b> | <b>Part #</b> | <b>Description:</b>                              |
| Galvanized Steel  | G44           | 1.90" x .120" Wall Galvanized Steel              |
| Drive Options:    |               | Sprockets, One Way Clutch                        |
| Cover Options:    |               | Urethane Sleeves, Urethane Tapered Rollers, HDPE |
- Shaft:**
- |                       |               |  |
|-----------------------|---------------|--|
| <b>Materials:</b>     | <b>Part #</b> | <b>Description:</b>  |
| Carbon Steel          | C68           | 7/16" Hex Carbon Steel Shaft   |
| Stainless Steel       | S70           | 7/16" Hex 304 Stainless Steel Shaft  |
| Aluminum              | A66           | 7/16" Hex Aluminum Shaft   |
| ** Plastic Adapters   | C62           | 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft        |
| *** Urethane Adapters | UC62          | 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft        |
| ** Plastic Adapters   | S62           | 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft |
| *** Urethane Adapters | US62          | 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft |
- \*\* Max load 50 lbs per roller    \*\*\* Max load 100 lbs per roller
- Standard Extensions: 1/2" - 5/8" with adapters, 9/16" all others
- Standard Springs: Dual spring loaded with shaft depressing to bearing hub
- Options: Fixed shaft, through shaft, holes, drilled and tapped, zinc plated

**Note:** Bushing style bearings are for intermittent use only.  
Not recommended for powered systems.

### Load Capacity (LBS.)

Frame I.F.	Bearing #					Frame I.F.	Bearing #				
	3F2	2J5	2J3	22J5	BUSHING		3F2	2J5	2J3	22J5	BUSHING
12	368	174	174	270	100	33	125	108	108	167	85
15	289	174	174	270	100	36	115	99	99	153	78
18	237	174	174	270	100	39	106	91	91	141	71
21	201	174	174	268	100	42	98	84	84	130	66
24	175	152	152	233	100	45	91	78	78	121	61
27	155	134	134	206	100	48	85	73	73	114	57
30	139	120	120	185	94	51	80	69	69	107	54

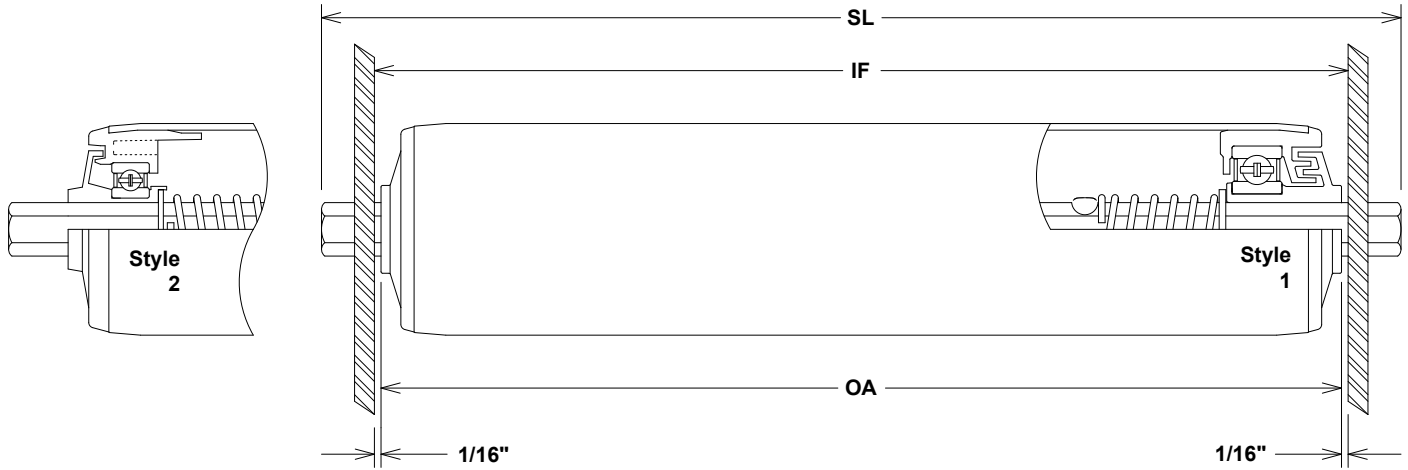
\* Load capacity with aluminum shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 2.00" Dia. x .065" Wall Thickness - 7/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision ABEC-1 Precision	<b>Part #</b> 3E0 3W6	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction 2 / Conductive plastic - Single labyrinth seal construction
<b>Tube:</b>	<b>Materials:</b> Carbon Steel Stainless Steel Galvanized Steel	<b>Part #</b> C49 S49 G49	<b>Description:</b> 2.00" x .065 Wall Carbon Steel 2.00" x .065 Wall 304 Stainless Steel 2.00" x .065 Wall Galvanized Steel
	Drive Options: Cover Options: Finish Options:	Grooves, Sprockets, One Way Clutch Urethane Sleeves, Urethane Tapered Rollers, HDPE, PVC Polished, Electropolished, Passivated, Zinc Plated	
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel Aluminum	<b>Part #</b> C68 S70 A66	<b>Description:</b> 7/16" Hex Carbon Steel Shaft 7/16" Hex 304 Stainless Steel Shaft 7/16" Hex Aluminum Shaft
	** Plastic adapters *** Urethane adapters ** Plastic adapters *** Urethane adapters	C62 UC62 S62 US62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft 7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft
	** Max load 50 lbs per roller Standard Extensions: Standard Springs: Options:	*** Max load 100 lbs per roller 1/2" - 5/8" with adapters, 9/16" all others Dual spring loaded with shaft depressing to bearing hub Fixed shaft, through shaft, holes, drilled and tapped, zinc plated	

### Load Capacity (LBS.)

Frame I.F.	Bearing # 3E0 / 3W6	Frame I.F.	Bearing # 3E0 / 3W6
12	368	33	125
15	289	36	115
18	237	39	106
21	201	42	98
24	175	45	91
27	155	48	85
30	139	51	80

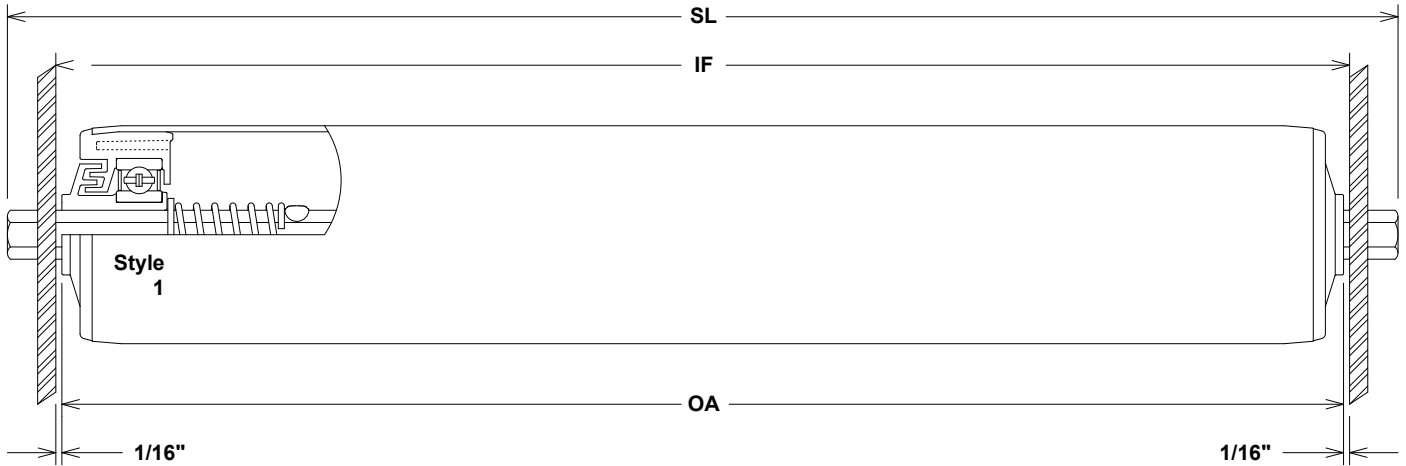
\* Load capacity with aluminum shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 2.25" Dia. x .065" Wall Thickness - 7/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3B3	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	2C0	1 / Conductive plastic - Double labyrinth seal construction
	Steel, Commercial	2C8	1 / Conductive plastic - Double labyrinth seal construction
<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C52	2.25" x .065" Wall Carbon Steel
	Stainless Steel	S52	2.25" x .065" Wall 304 Stainless Steel
	<b>Drive Options:</b>	Grooves, Sprockets, One Way Clutch	
	<b>Cover Options:</b>	Urethane Sleeves, Urethane Tapered Rollers, HDPE	
	<b>Finish Options:</b>	Polished, Electropolished, Passivated, Zinc Plated	
<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C68	7/16" Hex Carbon Steel Shaft
	Stainless Steel	S70	7/16" Hex 304 Stainless Steel Shaft
	Aluminum	A66	7/16" Hex Aluminum Shaft
	** Plastic adapters	C62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft
	*** Urethane adapters	UC62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft
	** Plastic adapters	S62	7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft
	*** Urethane adapters	US62	7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft

\*\* Max load 50 lbs per roller    \*\*\* Max load 200 lbs per roller

Standard Extensions: 1/2" - 5/8" with adapters, 9/16" all others  
 Standard Springs: Dual spring loaded with shaft depressing to bearing hub  
 Options: Fixed shaft, through shaft, holes, drilled and tapped, zinc plated

### Load Capacity (LBS.)

Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	3B3	2C0	2C8		3B3	2C0	2C8
12	368	174	174	33	125	137	137
15	289	174	174	36	115	125	125
18	237	174	174	39	106	115	115
21	201	174	174	42	98	107	107
24	175	174	174	45	91	99	99
27	155	169	169	48	85	93	93
30	139	151	151	51	80	87	87

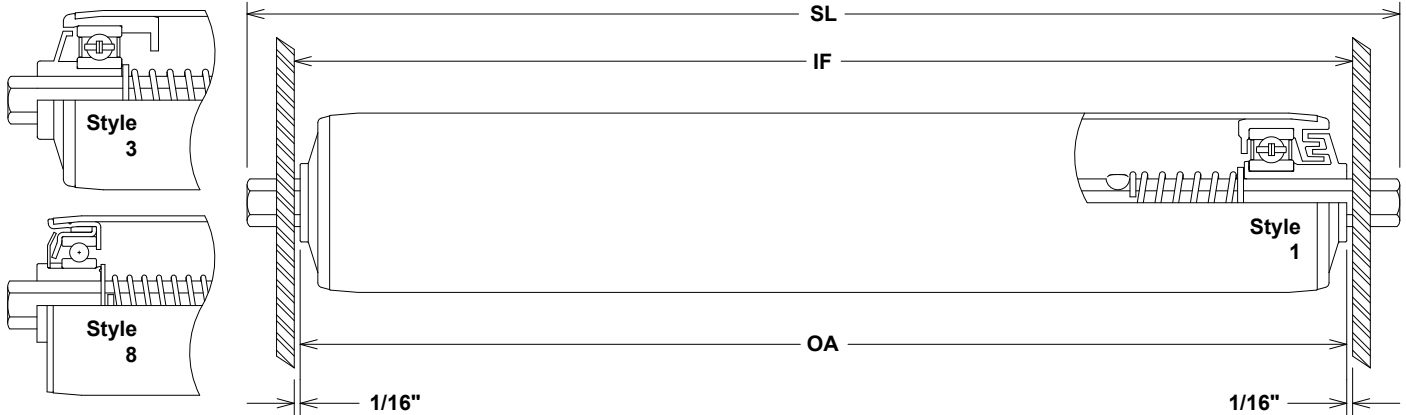
\* Load capacity with aluminum shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 2.50" Dia. x .083" Wall Thickness - 7/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3B8	1 / Conductive plastic - Double labyrinth seal construction
	ABEC-1 Precision	3W3	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	2E3	1 / Conductive plastic - Double labyrinth seal construction
	Steel, Commercial	2D5	3 / Conductive plastic - Without labyrinth seal construction
	Stamped, Precision	33B8	8 / ABEC-1 precision in a stamped zinc plated steel housing

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C57	2.50" x .083" Wall Carbon Steel
	Galvanized Steel	G57	2.50" x .083" Wall Galvanized Steel
	Stainless Steel	S57	2.50" x .083" Wall 304 Stainless Steel

**Drive Options:** Grooves, Sprockets, One Way Clutch  
**Cover Options:** Urethane Sleeves, Urethane Tapered Rollers, HDPE  
**Finish Options:** Polished, Electropolished, Passivated

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C68	7/16" Hex Carbon Steel Shaft
	Stainless Steel	S70	7/16" Hex 304 Stainless Steel Shaft
	Aluminum	A66	7/16" Hex Aluminum Shaft
	** Plastic adapters	C62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft
	*** Urethane adapters	UC62	7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft
	** Plastic adapters	S62	7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft
	*** Urethane adapters	US62	7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft

**\*\* Max load 50 lbs per roller**      **\*\*\* Max load 100 lbs per roller**  
**Standard Extensions:** 1/2" - 5/8" with adapters, 9/16" all others  
**Standard Springs:** Dual spring loaded with shaft depressing to bearing hub  
**Options:** Fixed shaft, through shaft, holes, drilled and tapped, zinc plated

### Load Capacity (LBS.)

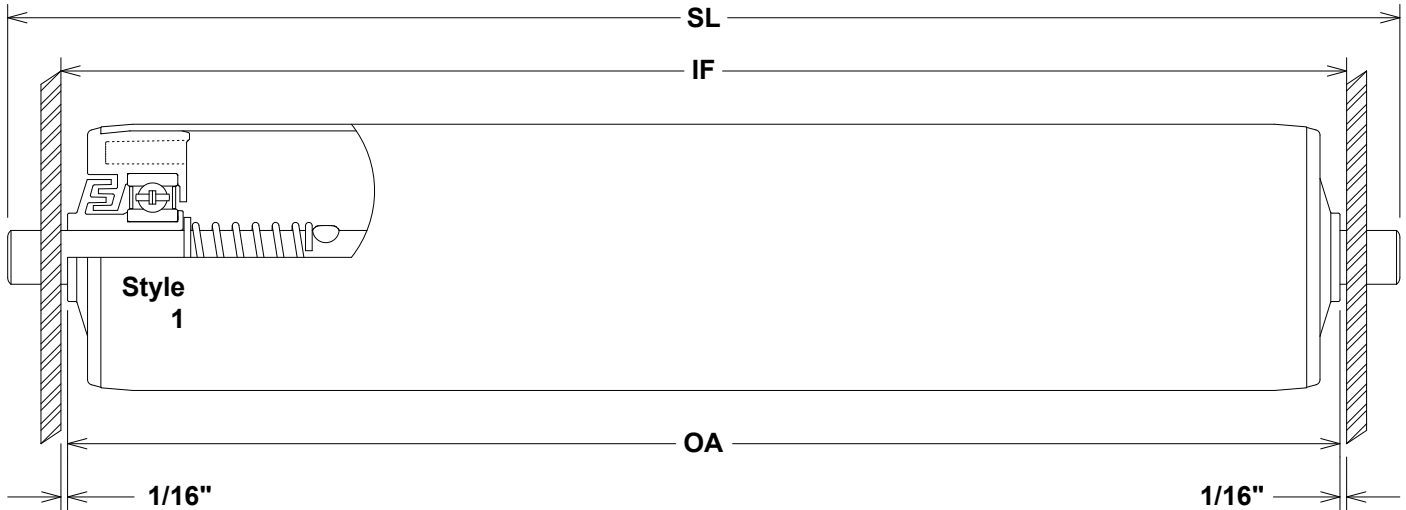
Frame	Bearing #					Frame	Bearing #				
	I.F.	2E3	2D5	3W3	3B8		33B8	I.F.	2E3	2D5	3W3
12	174	174	368	368	600	33	137	137	125	125	398
15	174	174	289	289	600	36	125	125	115	115	364
18	174	174	237	237	600	39	115	115	106	106	336
21	174	174	201	201	600	42	107	107	98	98	311
24	174	174	175	175	551	45	99	99	91	91	290
27	169	169	155	155	488	48	93	93	85	85	272
30	151	151	139	139	439	51	87	87	80	80	256

\* Load capacity with aluminum shaft is 33% of steel capacity.

\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.

## 2.50" Dia. x .083" Wall Thickness - 1/2" Round Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3C5	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	2D0	1 / Conductive plastic - Double labyrinth seal construction
	Steel, Commercial	2D6	1 / Conductive plastic - Double labyrinth seal construction

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	Inquire	2.50" x .083" Wall Carbon Steel
	Galvanized Steel	G57	2.50" x .083" Wall Galvanized Steel
	Stainless Steel	S57	2.50" x .083" Wall 304 Stainless Steel

**Drive Options:** Grooves, Sprockets  
**Cover Options:** Urethane Sleeves, Urethane Tapered Rollers, HDPE  
**Finish Options:** Polished, Electropolished, Passivated

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C30	1/2" Round Carbon Steel Shaft
	Stainless Steel	S35	1/2" Round 304 Stainless Steel Shaft
	Standard Extensions:	9/16"	
	Standard Springs:		Dual spring loaded with shaft depressing to bearing hub
<b>Options:</b>			Fixed shaft, through shaft, holes, drilled and tapped, threaded, D-shaft, zinc plated

### Load Capacity (LBS.)

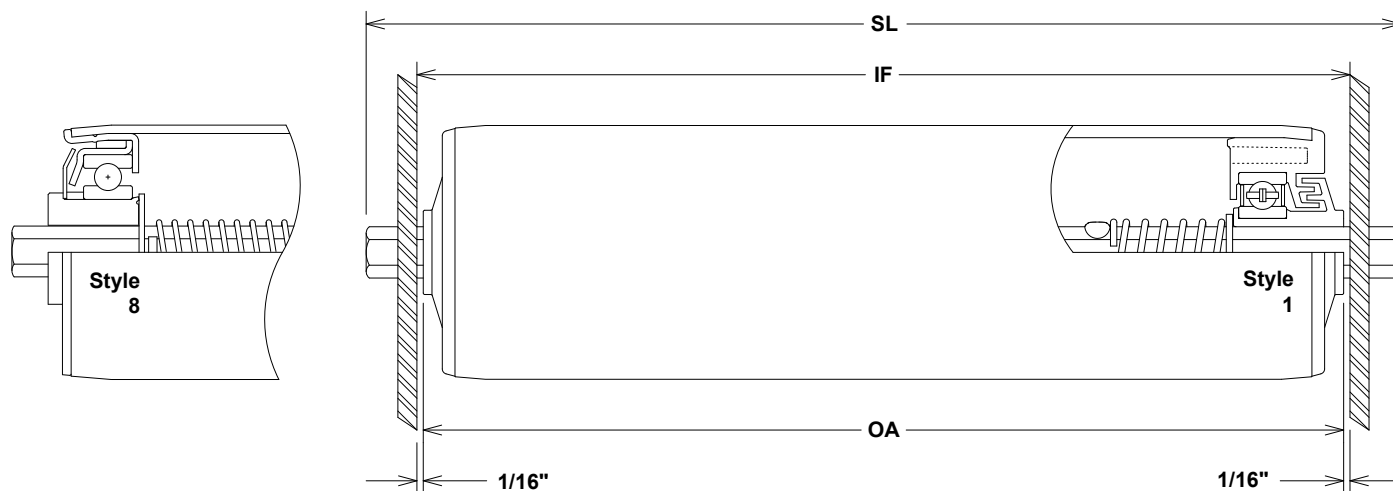
Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	3C5	2D0	2D6		3C5	2D0	2D6
12	368	174	174	33	125	137	137
15	289	174	174	36	115	125	125
18	237	174	174	39	106	115	115
21	201	174	174	42	98	107	107
24	175	174	174	45	91	99	99
27	155	169	169	48	85	93	93
30	139	151	151	51	80	87	87

\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 2.50" Dia. x .120" Wall Thickness - 7/16" Hex Shaft



- |                  |   |  |  |
|------------------|---|--|--|
| <b>Bearings:</b> | <b>Type:</b><br>Stainless Steel<br>Steel, Commercial<br>ABEC-1 Precision<br>Stamped, Precision  | <b>Part #</b><br>2D2<br>2C9<br>3C8<br>33C8   | <b>Style / Description:</b><br>1 / Conductive plastic - Double labyrinth seal construction<br>1 / Conductive plastic - Double labyrinth seal construction<br>1 / Conductive plastic - Double labyrinth seal construction<br>8 / ABEC-1 precision in a stamped zinc plated steel housing  |
| <b>Tube:</b>     | <b>Materials:</b><br>Carbon Steel<br>Galvanized Steel<br>Stainless Steel<br><b>Drive Options:</b><br>Cover Options:<br>Finish Options:  | <b>Part #</b><br>C56<br>G56<br>S56   | <b>Description:</b><br>2.50" x .120" Wall Carbon Steel<br>2.50" x .120" Wall Galvanized Steel<br>2.50" x .120" Wall 304 Stainless Steel<br>Sprockets, One Way Clutch<br>Urethane Sleeves, Urethane Tapered Rollers, HDPE<br>Polished, Electropolished, Passivated  |
| <b>Shaft:</b>    | <b>Materials:</b><br>Carbon Steel<br>Stainless Steel<br>Aluminum<br><b>Options:</b><br>** Plastic Adapters<br>*** Urethane Adapters<br>** Plastic Adapters<br>*** Urethane Adapters | <b>Part #</b><br>C68<br>S70<br>A66<br>Zinc Plated<br>C62<br>UC62<br>S62<br>US62  | <b>Description:</b><br>7/16" Hex Carbon Steel Shaft<br>7/16" Hex Stainless Steel Shaft<br>7/16" Hex Aluminum Shaft<br>7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft<br>7/16" Hex External Adapter with 5/16" Hex Internal Carbon Steel Shaft<br>7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft<br>7/16" Hex External Adapter with 5/16" Hex Internal 304 Stainless Steel Shaft |
|                  | ** Max load 50 lbs per roller<br>Standard Extensions:<br>Standard Springs:<br>Options:  | *** Max load 100 lbs per roller<br>1/2" - 5/8" with adapters, 9/16" all others<br>Dual spring loaded with shaft depressing to bearing hub<br>Fixed shaft, through shaft, holes, drilled and tapped |  |

### Load Capacity (LBS.)

Frame I.F.	Bearing #				Frame I.F.	Bearing #			
	2D2	2C9	3C8	33C8		2D2	2C9	3C8	33C8
12	174	174	344	600	33	154	154	116	398
15	174	174	269	600	36	140	140	106	364
18	174	174	221	600	39	129	129	98	336
21	174	174	187	600	42	120	120	91	311
24	174	174	162	551	45	111	111	84	290
27	174	174	144	488	48	104	104	79	272
30	170	170	129	439	51	98	98	74	256

\* Load capacity with aluminum shaft is 33% of steel capacity.

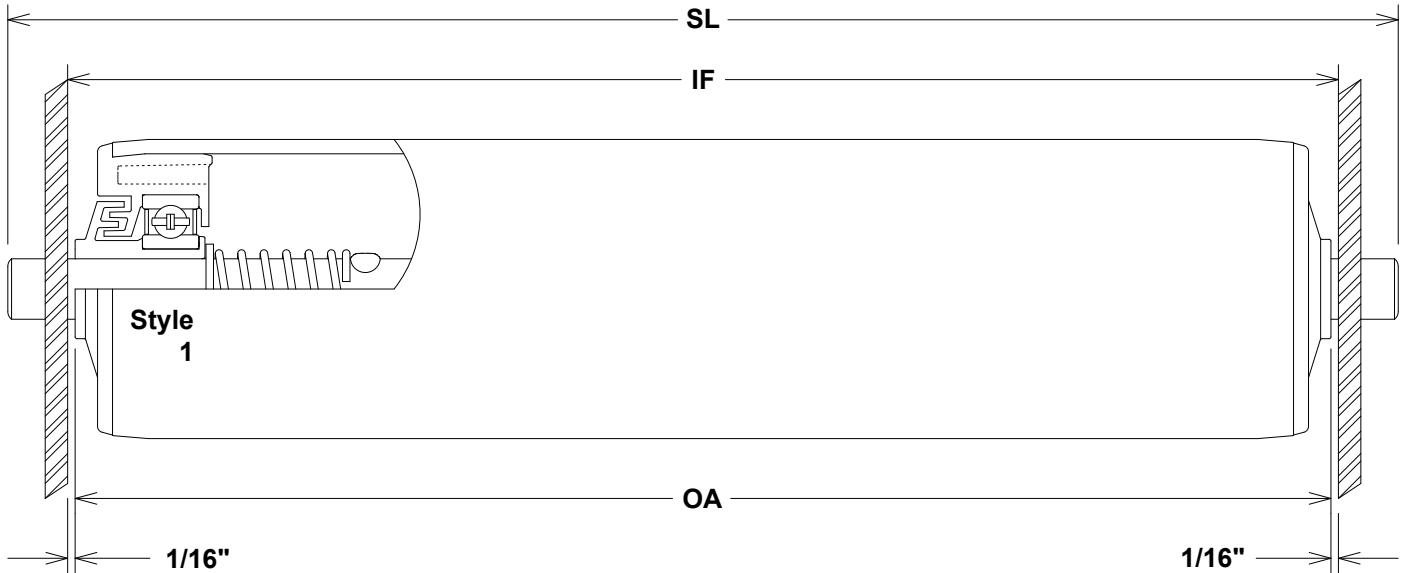
\*\* Longer lengths are available upon request.

\*\*\* Capacities are for uniform loading - Reduce 50% for point loading.



# Metal Rollers

## 2.50" Dia. x .120" Wall Thickness - 1/2" Round Shaft



<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision	<b>Part #</b> 3C2	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction
<b>Tube:</b>	<b>Materials:</b> Carbon Steel Galvanized Steel Stainless Steel	<b>Part #</b> C56 G56 S56	<b>Description:</b> 2.50" x .120" Wall Carbon Steel 2.50" x .120" Wall Galvanized Steel 2.50" x .120" Wall 304 Stainless Steel
	Drive Options:	Sprockets	
	Cover Options:	Urethane Sleeves, Urethane Tapered Rollers, HDPE	
	Finish Options:	Polished, Electropolished, Passivated	
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel	<b>Part #</b> C30 S35	<b>Description:</b> 1/2" Round Carbon Steel Shaft 1/2" Round 304 Stainless Steel Shaft
	Standard Extensions:	9/16"	
	Standard Springs:	Dual spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, holes, drilled and tapped, threaded, D-shaft, zinc plated	

### Load Capacity (LBS.)

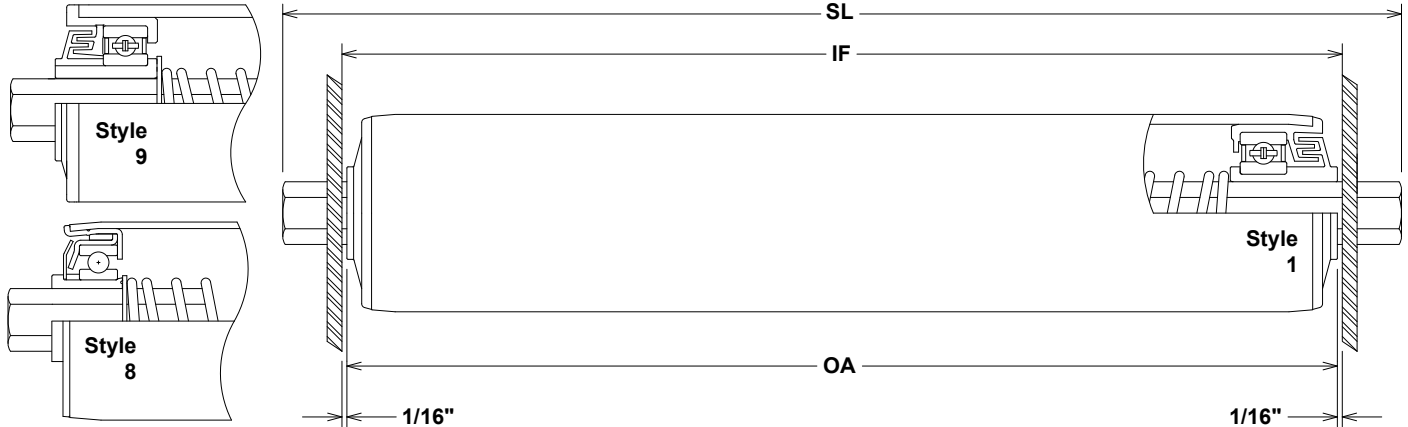
Frame I.F.	Bearing # 3C2	Frame I.F.	Bearing # 3C2
12	344	33	116
15	269	36	106
18	221	39	98
21	187	42	91
24	162	45	84
27	144	48	79
30	129	51	74

\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 2.50" Dia. x .120" Wall Thickness - 5/8" Hex Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3J7	1 / Conductive plastic - Double labyrinth seal construction
	ABEC-1 440 Stainless Steel	Inquire	1 / Conductive plastic - Double labyrinth seal construction
	Stamped, Precision	33J7	8 / ABEC-1 precision in a stamped zinc plated steel housing
	Machined, Precision	34J7 / 35J7	9 / ABEC-1 precision in a fully machined metal housing with double labyrinth seal construction for heavy duty loads
<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C56	2.50" x .120" Wall Carbon Steel
	Galvanized Steel	G56	2.50" x .120" Wall Galvanized Steel
	Stainless Steel	S56	2.50" x .120" Wall 304 Stainless Steel
	Drive Options:	Sprockets, One Way Clutch	
	Cover Options:	Urethane Sleeves, Urethane Tapered Rollers, HDPE	
	Finish Options:	Polished, Electropolished, Passivated	
<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C88	5/8" Hex Carbon Steel Shaft
	Stainless Steel	Inquire	5/8" Hex 304 Stainless Steel Shaft
	Options:	Zinc Plated	
	Standard Extensions:	3/4"	
	Standard Springs:	Single spring loaded with shaft depressing to bearing hub	
	Optional Springs:	Dual spring loaded with grooves or sprockets	
	Options:	Fixed shaft, through shaft, holes, drilled and tapped	

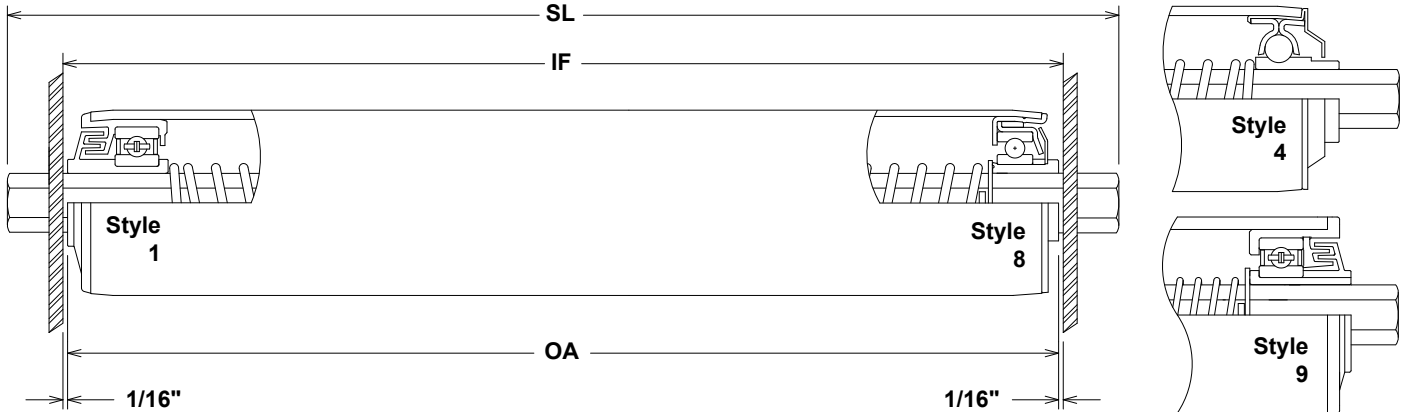
### Load Capacity (LBS.)

Frame I.F.	Bearing #			Frame I.F.	Bearing #		
	3J7	33J7	34J7 / 35J7		3J7	33J7	34J7 / 35J7
12	400	1200	1350	33	282	556	793
15	400	1200	1350	36	257	508	726
18	400	1048	1350	39	236	468	669
21	400	890	1263	42	218	433	620
24	399	774	1100	45	203	404	578
27	350	684	975	48	190	378	541
30	312	613	875	51	178	355	509

\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

## 2.50" Dia. x .120" Wall Thickness - 11/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	3B9	1 / Conductive plastic - Double labyrinth seal construction
	ABEC-1 440 Stainless Steel	3E8	1 / Conductive plastic - Double labyrinth seal construction
	Stamped Commercial	22D2	4 / Stamped zinc plated steel
	Stamped, Precision	33W9	8 / ABEC-1 precision in a stamped zinc plated steel housing
	Machined, Precision	34B9 / 35B9	9 / ABEC-1 precision bearing in a fully machined metal housing with plastic double labyrinth seals. For heavy duty applications.
<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C56	2.5" x .120" Wall Carbon Steel
	Galvanized Steel	G56	2.5" x .120" Wall Galvanized Steel
	Stainless Steel	S56	2.5" x .120" Wall 304 Stainless Steel
	Drive Options:	Sprockets, One Way Clutch	
	Cover Options:	Urethane Sleeves, Urethane Tapered Rollers, HDPE	
	Finish Options:	Polished, Electropolished, Passivated	
<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C82	11/16" Hex Carbon Steel Shaft
	Stainless Steel	S82	11/16" Hex 304 Stainless Steel Shaft
	Options:	Zinc Plated	
	Standard Extensions:	3/4"	
	Standard Springs:	Single spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, holes, drilled and tapped, dual spring loaded	

### Load Capacity (LBS.)

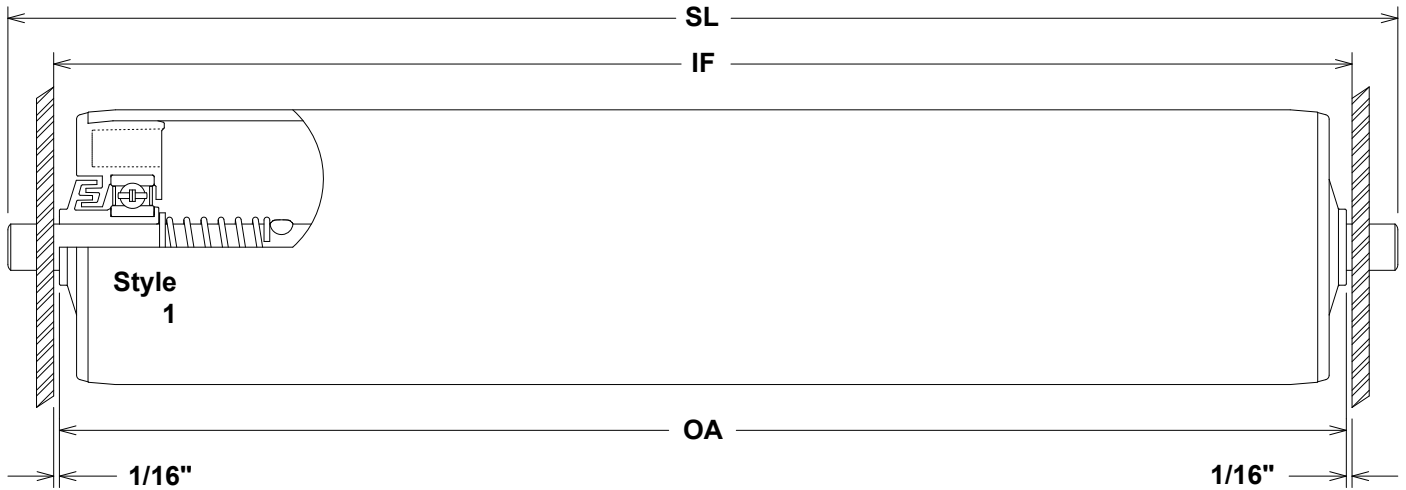
Frame I.F.	Bearing #					Frame I.F.	Bearing #				
	3B9	3E8	22D2	33W9	34B9/35B9		3B9	3E8	22D2	33W9	34B9/35B9
12	400	400	580	1200	1350	33	400	400	580	809	1155
15	400	400	580	1200	1350	36	374	374	580	740	1057
18	400	400	580	1200	1350	39	344	344	580	681	974
21	400	400	580	1200	1350	42	318	318	580	631	903
24	400	400	580	1127	1350	45	296	296	580	588	842
27	400	400	580	997	1350	48	276	276	580	551	789
30	400	400	580	893	1274	51	259	259	580	517	741

\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 3.00" Dia. x .120" Wall Thickness - 1/2" Round Shaft



<b>Bearings:</b>	<b>Type:</b>	<b>Part #</b>	<b>Style / Description:</b>
	ABEC-1 Precision	Inquire	1 / Conductive plastic - Double labyrinth seal construction
	Stainless Steel	Inquire	1 / Conductive plastic - Double labyrinth seal construction
	Steel, Commercial	Inquire	1 / Conductive plastic - Double labyrinth seal construction

<b>Tube:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C79	3.00" x .120" Wall Carbon Steel
	Galvanized Steel	Inquire	3.00" x .120" Wall Galvanized Steel
	Stainless Steel	Inquire	3.00" x .120" Wall 304 Stainless Steel

Drive Options: Sprockets  
 Cover Options: Urethane Sleeves  
 Finish Options: Polished, Electropolished, Passivated, Zinc Plated

<b>Shaft:</b>	<b>Materials:</b>	<b>Part #</b>	<b>Description:</b>
	Carbon Steel	C30	1/2" Round Carbon Steel Shaft
	Stainless Steel	S35	1/2" Round 304 Stainless Steel Shaft

Standard Extensions: 9/16"  
 Standard Springs: Dual spring loaded with shaft depressing to bearing hub  
 Options: Fixed shaft, through shaft, holes, drilled and tapped, threaded, D-shaft, zinc plated

### Load Capacity (LBS.)

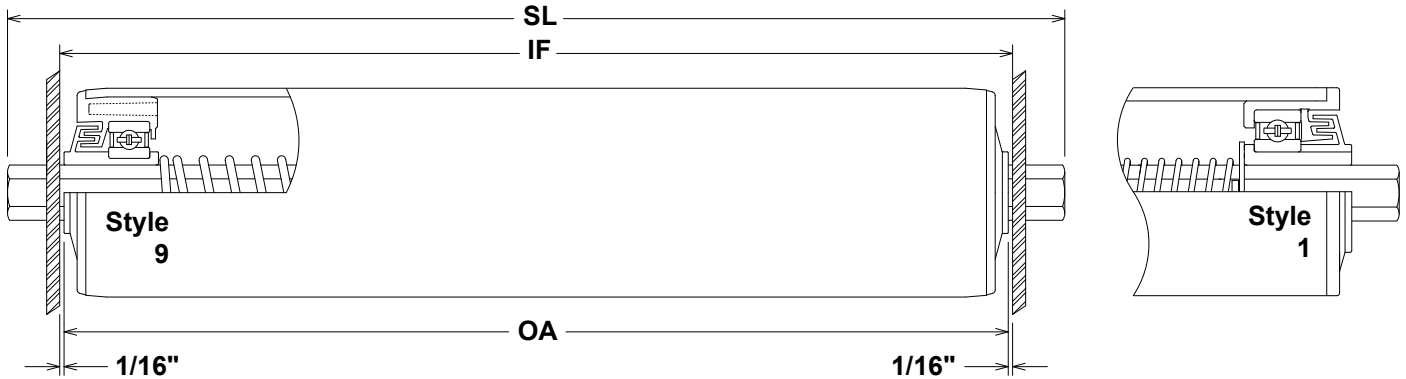
Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	ABEC-1	OTHER		ABEC-1	OTHER
12	499	174	33	169	174
15	390	174	36	155	174
18	320	174	39	142	174
21	272	174	42	132	169
24	236	174	45	123	157
27	209	174	48	115	147
30	187	174	51	108	138

\*\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

# Metal Rollers

## 3.00" Dia. x .120" Wall Thickness - 5/8" Hex Shaft



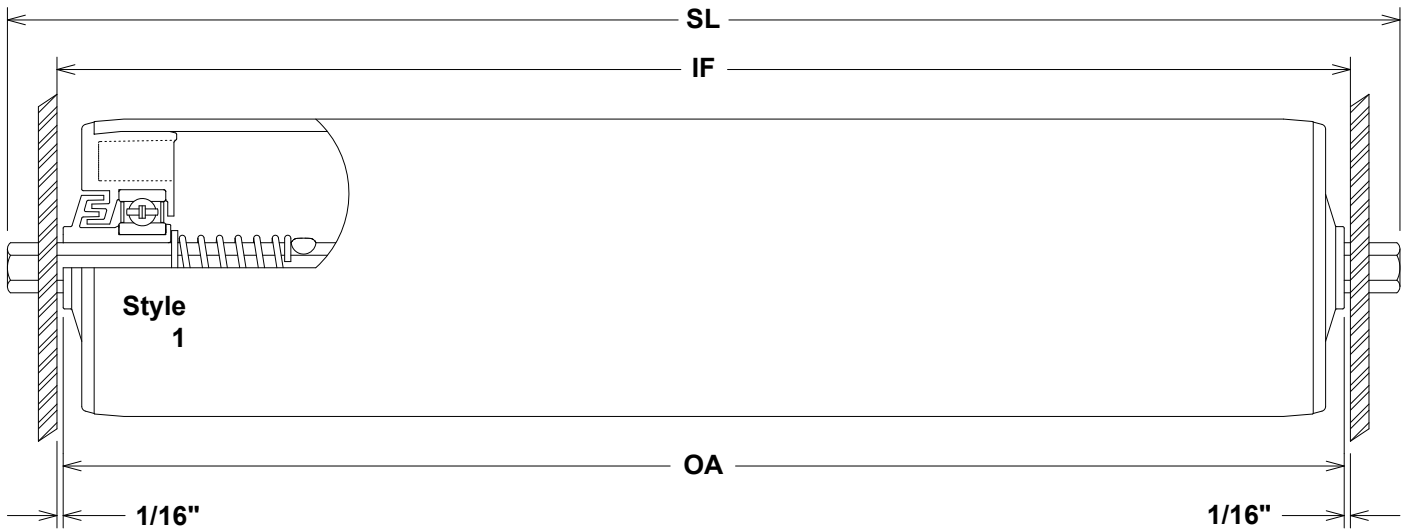
<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision ABEC-1 Precision  Stainless Steel	<b>Part #</b> 3K4* 34K4*  Inquire	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction 9 / ABEC-1 precision bearing in a fully machined metal housing with plastic double labyrinth seals. For heavy duty applications. 1 / Conductive plastic - Double labyrinth seal construction
<b>Tube:</b>	<b>Materials:</b> Carbon Steel Galvanized Steel Stainless Steel  Drive Options: Cover Options: Finish Options:	<b>Part #</b> C79 Inquire Inquire  Sprockets Urethane Sleeves Polished, Electropolished, Passivated, Zinc Plated	<b>Description:</b> 3.00" x .120" Wall Carbon Steel 3.00" x .120" Wall Galvanized Steel 3.00" x .120" Wall 304 Stainless Steel
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel Options:	<b>Part #</b> C88 Inquire Zinc Plated	<b>Description:</b> 5/8" Hex Carbon Steel Shaft 5/8" Hex 304 Stainless Steel Shaft
	Standard Extensions:	3/4"	
	Standard Springs:	Single spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, holes, drilled and tapped, dual spring loaded	

### Load Capacity (LBS.)

Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	3K4*	34K4*		3K4	34K4*
12	400	1350	33	282	793
15	400	1350	36	257	726
18	400	1350	39	236	669
21	400	1263	42	218	620
24	399	1100	45	203	578
27	350	975	48	190	541
30	312	875	51	178	509

Longer lengths are available upon request.  
Capacities are for uniform loading - Reduce 50% for point loading.

## 3.00" Dia. x .120" Wall Thickness - 11/16" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision Stainless Steel	<b>Part #</b> 3K4 Inquire	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction 1 / Conductive plastic - Double labyrinth seal construction
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<b>Tube:</b>	<b>Materials:</b> Carbon Steel Galvanized Steel Stainless Steel	<b>Part #</b> C79 Inquire Inquire	<b>Description:</b> 3.00" x .120" Wall Carbon Steel 3.00" x .120" Wall Galvanized Steel 3.00" x .120" Wall 304 Stainless Steel
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Drive Options:	Sprockets
Cover Options:	Urethane Sleeves
Finish Options:	Polished, Electropolished, Passivated, Zinc Plated

<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel	<b>Part #</b> C82 S82	<b>Description:</b> 11/16" Hex Carbon Steel Shaft 11/16" Hex 304 Stainless Steel Shaft
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Standard Extensions:	9/16"
Standard Springs:	Dual spring loaded with shaft depressing to bearing hub
Options:	Fixed shaft, through shaft, holes, drilled and tapped, zinc plated

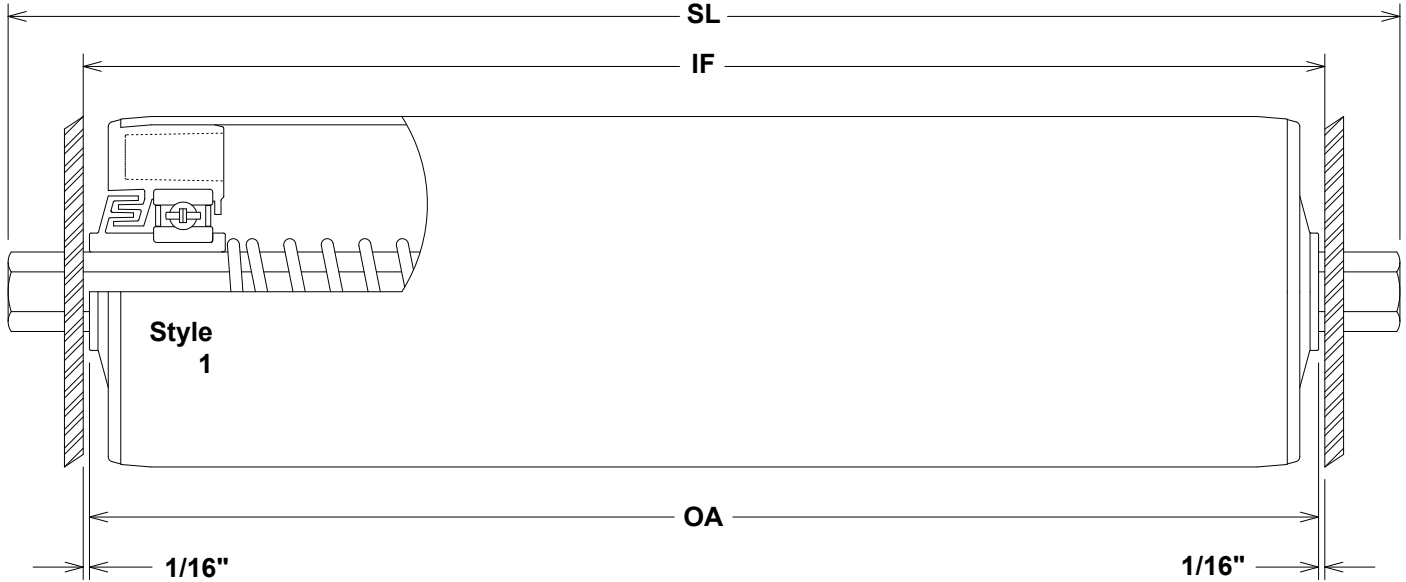
### Load Capacity (LBS.)

Frame I.F.	Bearing # 3K4	Frame I.F.	Bearing # 3K4
12	354	33	120
15	277	36	110
18	227	39	101
21	193	42	94
24	168	45	87
27	148	48	82
30	133	51	77

\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

## 3.50" Dia. x .083" Wall Thickness - 5/8" Hex Shaft



<b>Bearings:</b>	<b>Type:</b> ABEC-1 Precision	<b>Part #</b> Inquire	<b>Style / Description:</b> 1 / Conductive plastic - Double labyrinth seal construction
<b>Tube:</b>	<b>Materials:</b> Carbon Steel Stainless Steel	<b>Part #</b> C71 S71	<b>Description:</b> 3.50" x .083" Wall Carbon Steel 3.50" x .083" Wall 304 Stainless Steel
	Drive Options:	Grooves, Sprockets	
	Cover Options:	Urethane Sleeves	
	Finish Options:	Polished, Electropolished, Passivated, Zinc Plated	
<b>Shaft:</b>	<b>Materials:</b> Carbon Steel Stainless Steel	<b>Part #</b> C88 Inquire	<b>Description:</b> 5/8" Hex Carbon Steel Shaft 5/8" Hex 304 Stainless Steel Shaft
	Standard Extensions:	3/4"	
	Standard Springs:	Single spring loaded with shaft depressing to bearing hub	
	Options:	Fixed shaft, through shaft, holes, drilled and tapped, dual spring loaded, zinc plated	

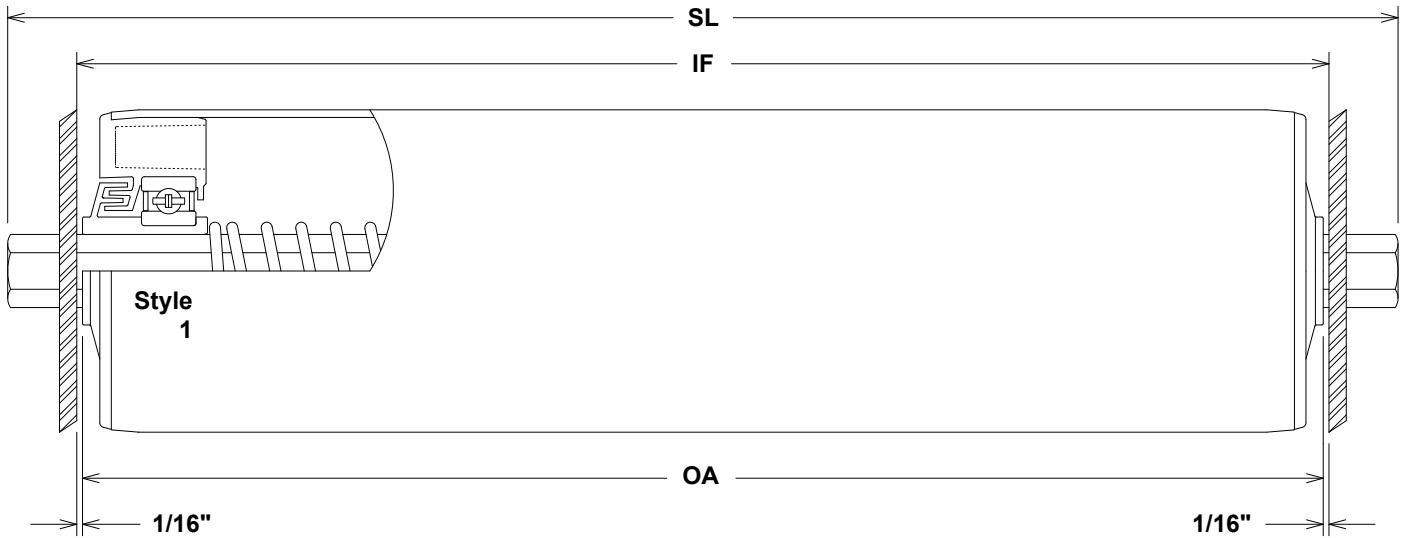
### Load Capacity (LBS.)

Frame I.F.	Bearing # ABEC - 1	Frame I.F.	Bearing # ABEC - 1
12	500	33	490
15	500	36	448
18	500	39	412
21	500	42	382
24	500	45	355
27	500	48	333
30	500	51	313

\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

## 3.50" Dia. x .083" Wall Thickness - 11/16" Hex Shaft



**Bearings:**      **Type:**                      **Part #**                      **Style / Description:**  
                          ABEC-1 Precision                      3E6                      1 / Conductive plastic - Double labyrinth seal construction

**Tube:**                      **Materials:**                      **Part #**                      **Description:**  
                          Carbon Steel                      C71                      3.50" x .083" Wall Carbon Steel  
                          Stainless Steel                      S71                      3.50" x .083" Wall 304 Stainless Steel

Drive Options:                      Grooves, Sprockets  
 Cover Options:                      Urethane Sleeves  
 Finish Options:                      Polished, Electropolished, Passivated, Zinc Plated

**Shaft:**                      **Materials:**                      **Part #**                      **Description:**  
                          Carbon Steel                      C82                      11/16" Hex Carbon Steel Shaft  
                          Stainless Steel                      S82                      11/16" Hex 304 Stainless Steel Shaft  
                          Options:                      Zinc Plated

Standard Extensions:                      3/4"  
 Standard Springs:                      Single spring loaded with shaft depressing to bearing hub  
 Optional Springs:                      Dual spring loaded with grooves or sprockets  
 Options:                      Fixed shaft, through shaft, holes, drilled and tapped

### Load Capacity (LBS.)

Frame I.F.	Bearing # 3E6	Frame I.F.	Bearing # 3E6
12	400	33	400
15	400	36	374
18	400	39	344
21	400	42	318
24	400	45	296
27	400	48	276
30	400	51	259

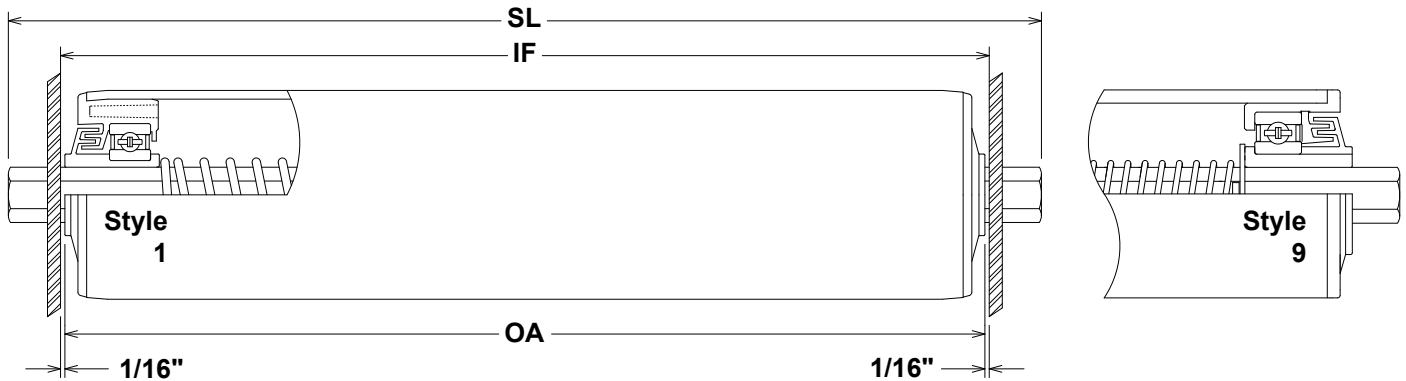
\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.



# Metal Rollers

## 3.50" Dia. x .120" Wall Thickness - 5/8" Hex Shaft



- |                  |  |  |  |
|------------------|--|--|--|
| <b>Bearings:</b> | <b>Type:</b><br>ABEC-1 Precision<br>ABEC-1 Precision   | <b>Part #</b><br>Inquire<br>Inquire  | <b>Style / Description:</b><br>1 / Conductive plastic - Double labyrinth seal construction<br>9 / ABEC-1 precision bearing in a fully machined metal housing with double labyrinth seals. For heavy duty applications. |
| <b>Tube:</b>     | <b>Materials:</b><br>Carbon Steel<br>Galvanized Steel<br><b>Drive Options:</b><br>Cover Options: | <b>Part #</b><br>C72<br>G72<br>Sprockets<br>Urethane Sleeves, Urethane Tapered Rollers | <b>Description:</b><br>3.50" x .120" Wall Carbon Steel<br>3.50" x .120" Wall Galvanized Steel  |
| <b>Shaft:</b>    | <b>Materials:</b><br>Carbon Steel<br>Stainless Steel   | <b>Part #</b><br>C88<br>Inquire  | <b>Description:</b><br>5/8" Hex Carbon Steel Shaft<br>5/8" Hex 304 Stainless Steel Shaft   |
|                  | Standard Extensions:   | 3/4"   |  |
|                  | Standard Springs:  | Single spring loaded with shaft depressing to bearing hub                              |  |
|                  | Options:   | Fixed shaft, through shaft, holes, drilled and tapped, dual spring loaded, zinc plated |  |

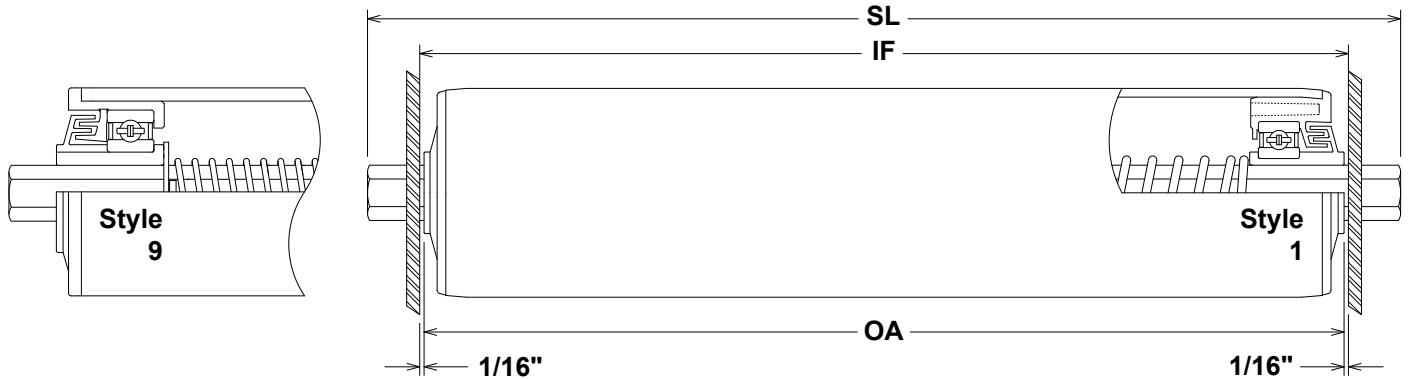
### Load Capacity (LBS.)

Frame I.F.	Bearing # ABEC - 1	Frame I.F.	Bearing # ABEC - 1
12	400	33	400
15	400	36	374
18	400	39	344
21	400	42	318
24	400	45	296
27	400	48	276
30	400	51	259

\*\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

## 3.50" Dia. x .120" Wall Thickness - 11/16" Hex Shaft



- |                  |                             |  |  |
|------------------|-----------------------------|--|--|
| <b>Bearings:</b> | <b>Type:</b>                | <b>Part #</b>  | <b>Style / Description:</b>  |
|                  | ABEC-1 Precision            | 3D4  | 1 / Conductive plastic - Double labyrinth seal construction  |
|                  | ABEC-1 Precision            | 34D4   | 9 / ABEC-1 precision bearing in a fully machined metal housing with double labyrinth seals. For heavy duty applications. |
| <b>Tube:</b>     | <b>Materials:</b>           | <b>Part #</b>  | <b>Description:</b>  |
|                  | Carbon Steel                | C72  | 3.50" x .120" Wall Carbon Steel  |
|                  | Galvanized Steel            | G72  | 3.50" x .120" Wall Galvanized Steel  |
|                  | <b>Drive Options:</b>       | Sprockets  |  |
|                  | <b>Cover Options:</b>       | Urethane Sleeves   |  |
|                  | <b>Finish Options:</b>      | Zinc Plated  |  |
| <b>Shaft:</b>    | <b>Materials:</b>           | <b>Part #</b>  | <b>Description:</b>  |
|                  | Carbon Steel                | C82  | 11/16" Hex Carbon Steel Shaft  |
|                  | Stainless Steel             | S82  | 11/16" Hex 304 Stainless Steel Shaft   |
|                  | <b>Standard Extensions:</b> | 3/4"   |  |
|                  | <b>Standard Springs:</b>    | Single spring loaded with shaft depressing to bearing hub                              |  |
|                  | <b>Options:</b>             | Fixed shaft, through shaft, holes, drilled and tapped, dual spring loaded, zinc plated |  |

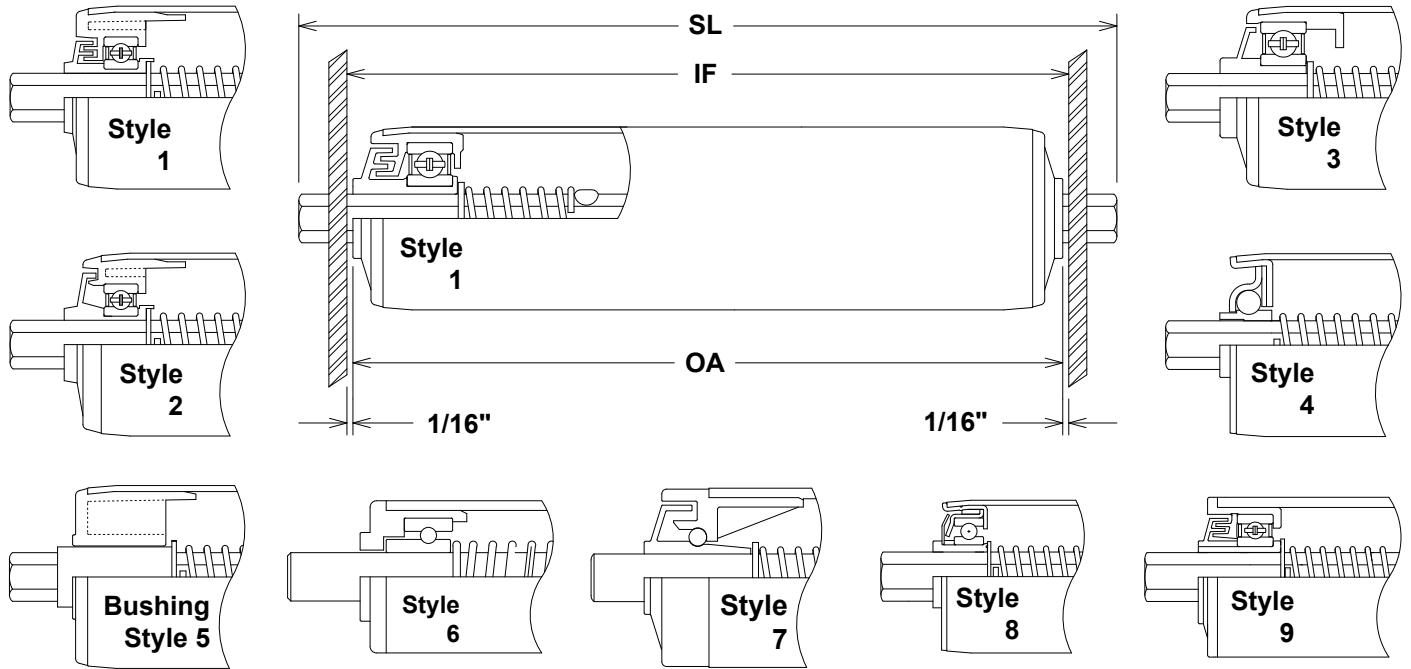
### Load Capacity (LBS.)

Frame I.F.	Bearing #		Frame I.F.	Bearing #	
	3D4	34D4		3D4	34D4
12	400	1350	33	400	1155
15	400	1350	36	374	1057
18	400	1350	39	344	974
21	400	1350	42	318	903
24	400	1350	45	296	842
27	400	1350	48	276	789
30	400	1274	51	259	741

\* Longer lengths are available upon request.

\*\* Capacities are for uniform loading - Reduce 50% for point loading.

## Bearing Style Configurations



- Style 1** ABEC-1 Precision, commercial or stainless steel ball bearings in a plastic housing with double labyrinth seal construction.
- Style 2** ABEC-1 Precision, commercial or stainless steel ball bearings in a plastic housing with single labyrinth seal construction
- Style 3** ABEC-1 Precision sealed or shielded bearing in a plastic housing with no labyrinth seal construction
- Style 4** Commercial Stamped Zinc Plated Steel ball bearing
- Style 5** Bushing style bearing
- Style 6** Commercial or stainless steel bearings in a plastic housing with no seals
- Style 7** Stainless steel balls in a plastic housing and raceway
- Style 8** ABEC-1 Precision ball bearings in stamped Zinc Plated Steel housings - Metal rollers only
- Style 9** ABEC-1 Precision ball bearings in Machined Metal housings - For Heavy Duty Metal Roller Applications