

## Ralphs-Pugh Roller Component Parts

Ralphs-Pugh roller components are custom molded or fabricated at our facility insuring the highest quality possible. With complete control of design and a long-term commitment to the material handling industry, these products will enhance your roller performance. All materials are FDA approved to meet today's stringent requirements. Unique two-piece bushing/endplug combinations allow for economical replacement of bushings rather than replacing the entire endplug. **We also custom manufacture for special requirements.**

### Bushings

#### Materials:

- Acetal Plastic: "Ultra Blue" Acetal plastic with Teflon additives \*Our best material\*
- Acetal Plastic: Light blue color - Standard unless otherwise specified.
- Ultra High Molecular Weight Plastic (UHMW)

#### Styles Available:

- Standard Duty: Thru Hole and Blind Hole
- Heavy Duty: Thru Hole and Blind Hole
- Heavy Duty Grading and Inspection (GIR): Blind Hole

#### Features:

- Self lubricating
- Replaceable
- Lead chamfer for easy installation

### Endplugs

#### Materials:

- ABS Plastic

#### Features:

- Lead chamfer for easy installation
- Tight tolerances assuring proper fit
- Assured concentricity for true running rollers

### Plastic Tubing

#### Materials:

- Standard White PVC
- "High Impact" White PVC with Impact modifiers for added shock resistance and Special Ultra Violet (UV) stabilizers
- Dark Gray in limited sizes

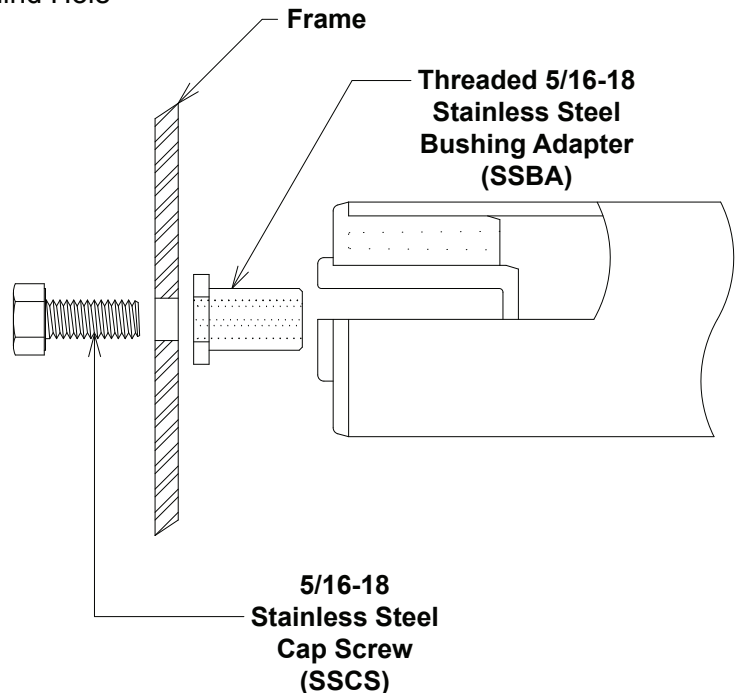
#### Features:

- Custom extruded for very tight tolerances assuring inside diameters

### Hardware

#### Bushing Adapters and Cap Screws:

- 300 series stainless steel for long life and exceptional corrosion resistance. FDA approved for food industry.



## Components for Metal Tubes

### Plastic Endplugs

| Part No.   | Endplug Dimensions |           | Tube Dimensions |       |        |       |
|------------|--------------------|-----------|-----------------|-------|--------|-------|
|            | Flange O.D.        | Body O.D. | O.D.            | I.D.  | Gauge  | Wall  |
| 1-8P       | 1.320              | 0.963     | 1.315           | 0.957 | SCH 80 | 0.179 |
| 1-4P       | 1.320              | 1.055     | 1.315           | 1.049 | SCH 40 | 0.133 |
| 1 1/4 EMT  | 1.510              | 1.386     | 1.500           | 1.380 | EMT    | 0.065 |
| 1 1/4 - 4P | 1.660              | 1.386     | 1.660           | 1.380 | SCH 40 | 0.140 |
| 1 1/4 - 8P | 1.660              | 1.284     | 1.660           | 1.278 | SCH 80 | 0.191 |
| 1 3/8 - 18 | 1.375              | 1.283     | 1.375           | 1.278 | 18     | 0.049 |
| 1 3/8 - 16 | 1.375              | 1.251     | 1.375           | 1.245 | 16     | 0.065 |
| 1 1/2 - 10 | 1.500              | 1.238     | 1.500           | 1.232 | 10     | 0.134 |
| 1 1/2 - 16 | 1.500              | 1.376     | 1.500           | 1.370 | 16     | 0.065 |
| 1 1/2 EMT  | 1.800              | 1.616     | 1.740           | 1.610 | EMT    | 0.085 |
| 1 1/2 - 1P | 1.900              | 1.688     | 1.900           | 1.682 | SCH 10 | 0.109 |
| 1 1/2 - 4P | 1.900              | 1.616     | 1.900           | 1.610 | SCH 40 | 0.145 |
| 1 1/2 - 8P | 1.900              | 1.506     | 1.900           | 1.500 | SCH 80 | 0.200 |
| 1 5/8 - 16 | 1.625              | 1.501     | 1.625           | 1.495 | 16     | 0.065 |
| 1 3/4 - 16 | 1.750              | 1.627     | 1.750           | 1.620 | 16     | 0.065 |
| 1 3/4 - 14 | 1.750              | 1.590     | 1.750           | 1.584 | 14     | 0.083 |
| 1 7/8 - 16 | 1.875              | 1.751     | 1.875           | 1.745 | 16     | 0.065 |
| 2 - 18     | 2.000              | 1.908     | 2.000           | 1.902 | 18     | 0.049 |
| 2 - 16     | 2.000              | 1.876     | 2.000           | 1.870 | 16     | 0.065 |
| 2 - 14     | 2.000              | 1.840     | 2.000           | 1.834 | 14     | 0.083 |
| 2 - 13     | 2.000              | 1.816     | 2.000           | 1.810 | 13     | 0.095 |
| 2 - 11     | 2.000              | 1.766     | 2.000           | 1.760 | 11     | 0.120 |
| 2 - EMT    | 2.190              | 2.073     | 2.190           | 2.067 | EMT    | 0.062 |
| 2 - 4P     | 2.375              | 2.073     | 2.375           | 2.067 | SCH 40 | 0.154 |
| 2 - 8P     | 2.375              | 1.945     | 2.375           | 1.939 | SCH 80 | 0.218 |
| 2 1/8 - 16 | 2.125              | 2.001     | 2.125           | 1.995 | 16     | 0.065 |
| 2 1/4 - 18 | 2.250              | 2.158     | 2.250           | 2.152 | 18     | 0.049 |
| 2 1/4 - 16 | 2.250              | 2.126     | 2.250           | 2.120 | 16     | 0.065 |
| 2 1/4 - 14 | 2.250              | 2.090     | 2.250           | 2.084 | 14     | 0.083 |
| 2 1/4 - 13 | 2.250              | 2.066     | 2.250           | 2.060 | 13     | 0.095 |
| 2 1/4 - 11 | 2.250              | 2.016     | 2.250           | 2.010 | 11     | 0.120 |
| 2 3/8 - 16 | 2.375              | 2.251     | 2.375           | 2.245 | 16     | 0.065 |
| 2 3/8 - 11 | 2.375              | 2.141     | 2.375           | 2.135 | 11     | 0.120 |
| 2 1/2 - 4P | 2.875              | 2.475     | 2.875           | 2.469 | SCH 40 | 0.203 |
| 2 1/2 - 8P | 2.875              | 2.329     | 2.875           | 2.323 | SCH 80 | 0.276 |
| 2 1/2 - 16 | 2.500              | 2.376     | 2.500           | 2.370 | 16     | 0.065 |
| 2 1/2 - 14 | 2.500              | 2.340     | 2.500           | 2.334 | 14     | 0.083 |
| 2 1/2 - 13 | 2.500              | 2.316     | 2.500           | 2.310 | 13     | 0.095 |
| 2 1/2 - 11 | 2.500              | 2.266     | 2.500           | 2.260 | 11     | 0.120 |
| 2 1/2 - 10 | 2.500              | 2.238     | 2.500           | 2.232 | 10     | 0.134 |
| 2 3/4 - 16 | 2.750              | 2.626     | 2.750           | 2.620 | 16     | 0.065 |
| 2 3/4 - 14 | 2.750              | 2.590     | 2.750           | 2.584 | 14     | 0.083 |
| 2 3/4 - 13 | 2.750              | 2.566     | 2.750           | 2.560 | 13     | 0.095 |
| 2 3/4 - 11 | 2.750              | 2.516     | 2.750           | 2.510 | 11     | 0.120 |
| 3 - 18     | 3.000              | 2.908     | 3.000           | 2.902 | 18     | 0.049 |
| 3 - 16     | 3.000              | 2.876     | 3.000           | 2.870 | 16     | 0.065 |
| 3 - 14     | 3.000              | 2.840     | 3.000           | 2.834 | 14     | 0.083 |



*2 Piece Endplug / Bushing combination for press fit into metal tube*



**For Custom Endplugs go to the Engineering Drawings Section - CUSTOM ENDPLUG**

## Components for Metal Tubes

### Heavy Duty Bushings

| Thru Hole Part No. | Blind Hole Part No. | Inside Diameter | GIR Blind Hole | Inside Diameter |
|--------------------|---------------------|-----------------|----------------|-----------------|
| 1/4-5T**           | 1/4-5B**            | 0.270           | --             | --              |
| 5/16-5T**          | 5/16-5B**           | 0.332           | --             | --              |
| 3/8-5T             | 3/8-5B              | 0.395           | --             | --              |
| 7/16-5T            | 7/16-5B             | 0.457           | 7/16-5B GIR    | 0.467           |
| 1/2-5T             | 1/2-5B              | 0.520           | 1/2-5B GIR     | 0.530           |
| 9/16-5T            | 9/16-5B             | 0.582           | 9/16-5B GIR    | 0.592           |
| 5/8-5T             | 5/8-5B              | 0.645           | 5/8-5B GIR     | 0.655           |
| 3/4-5T             | 3/4-5B              | 0.770           | 3/4-5B GIR     | 0.780           |

**Material:** Standard: Molded Acetal \*\* UHMW Only  
 Optional: Molded "Ultra Blue" Acetal Plastic Teflon Additives UHMW

**Flange:** 1/8"    **O.D.** .881"    **Length:** 1 1/2"    **GIR Length:** 1 3/4"



Heavy Duty Bushings

### Bushing Adapters

| Part No.        | Material             | Body O.D. | Body Length | Flange | I.D.          |
|-----------------|----------------------|-----------|-------------|--------|---------------|
| SSBA 1/2x7/8    | Stainless            | 1/2"      | 3/4"        | 1/8"   | D & T 5/16-18 |
| SSBA 9/16x1 1/4 | Stainless            | 9/16"     | 1 1/8"      | 1/8"   | D & T 5/16-18 |
| SSBA 5/8x1 1/8  | Stainless            | 5/8"      | 15/16"      | 3/16"  | D & T 5/16-18 |
| 7/16 HEX-T      | Stainless or Plastic | 5/8"      | 1 1/8"      | 1/16"  | 7/16" Hex     |



Bushing Adapters

### Cap Screws

| Part No.      | Material  | Length | Threaded |
|---------------|-----------|--------|----------|
| SSCS 5/16x3/4 | Stainless | 3/4"   | 5/16-18  |



Cap Screws

## Components for Plastic Tubes

\* Commercial plastic tubing may require boring for proper fit and concentricity \*

### Standard Duty Endplugs

| Part No. | Flange O.D. | Body O.D. | Pipe Size     |
|----------|-------------|-----------|---------------|
| 20       | 1.315       | 1.049     | 1" SCH 40     |
| 40       | 1.900       | 1.605     | 1 1/2" SCH 40 |
| 41       | 1.900       | 1.675     | RPCO Tube #41 |

### Standard Duty Bushings

Thru Hole: 1/4-T, 3/8-T, 1/2-T, 5/16-T, 7/16-T

Blind Hole: 3/8-B, 1/2-B

Endplug Material: Gray ABS

Bushing Material: Standard: Light blue Acetal

\* UHMW - Upon Request

Length: Standard: 7/8"

Combined Flange Thickness: 1/4"

Other sizes available upon request



*2 Piece Endplug / Bushing combination for press fit or glue into plastic tube*

### Heavy Duty Endplugs



*2 Piece Endplug / Bushing combination for press fit or glue into plastic tube*

| Part No. | Flange O.D. | Body O.D. | Pipe Size     |
|----------|-------------|-----------|---------------|
| 405      | 1.900       | 1.605     | 1 1/2" SCH 40 |
| 415      | 1.900       | 1.675     | RPCO Tube #41 |
| 455      | 1.900       | 1.500     | 1 1/2" SCH 80 |
| 505      | 2.375       | 2.058     | 2" SCH 40     |
| 515      | 2.375       | 2.125     | RPCO Tube #51 |
| 555      | 2.375       | 1.930     | 2" SCH 80     |
| 605      | 2.875       | 2.470     | 2 1/2" SCH 40 |
| 615      | 2.875       | 2.565     | RPCO Tube #61 |
| 655      | 2.875       | 2.320     | 2 1/2" SCH 80 |
| 705      | 3.500       | 3.068     | 3" SCH 40     |
| 755      | 3.500       | 2.900     | 3" SCH 80     |
| 805      | 4.500       | 4.026     | 4" SCH 40     |
| 855      | 4.500       | 3.821     | 4" SCH 80     |

### Heavy Duty Bushings

Thru Hole: 1/4-5T\*, 5/16-5T\*, 3/8-5T, 7/16-5T, 1/2-5T, 9/16-5T, 5/8-5T, 3/4-5T

Blind Hole: 1/4-5B\*, 5/16-5B\*, 3/8-5B, 7/16-5B, 1/2-5B, 9/16-5B, 5/8-5B, 3/4-5B

Endplug Material: Gray ABS

Bushing Material: Standard: Light Blue Acetal      Optional: Molded "Ultra Blue" Acetal with Teflon additive

\* UHMW only

Length: Standard: 1 1/2"

Combined Flange Thickness: 1/4"

Other sizes available upon request

### PVC Tubing – Idler

| Part No. | O.D. x Wall  | Length | Lbs. Per Lineal Ft. |
|----------|--------------|--------|---------------------|
| 41-12    | 1.900 x .112 | 12     | 0.400               |
| 45-12    | 1.900 x .200 | 12     | 0.664               |
| 51-12    | 2.375 x .125 | 12     | 0.558               |
| 55-14    | 2.375 x .218 | 14     | 0.918               |
| 61-12    | 2.875 x .150 | 12     | 0.806               |
| 65-12    | 2.875 x .276 | 12     | 1.400               |
| 75-10    | 3.500 x .300 | 10     | 1.877               |

**For Custom Endplugs  
go to the Engineering  
Drawings Section -  
CUSTOM ENDPLUG**

## Components for Plastic Tubes

### Standard Duty Bushings

| Thru Hole Part No. | Blind Hole Part No. | Inside Diameter |
|--------------------|---------------------|-----------------|
| 1/4-T              | --                  | 0.265           |
| 5/16-T             | --                  | 0.327           |
| 3/8-T              | 3/8-B               | 0.390           |
| 7/16-T             | --                  | 0.452           |
| 1/2-T              | 1/2-B               | 0.515           |

**Material:** Standard - Molded Acetal  
Optional - Molded "Ultra Blue" Acetal plastic with Teflon additives

**Flange:** 1/8"      **O.D.:** 0.756"      **Length:** 7/8"



Heavy Duty Bushings

### Heavy Duty Bushings

| Thru Hole Part No. | Blind Hole Part No. | Inside Diameter | GIR Blind Hole | Inside Diameter |
|--------------------|---------------------|-----------------|----------------|-----------------|
| 1/4-5T**           | 1/4-5B**            | 0.270           | --             | --              |
| 5/16-5T**          | 5/16-5B**           | 0.332           | --             | --              |
| 3/8-5T             | 3/8-5B              | 0.395           | --             | --              |
| 7/16-5T            | 7/16-5B             | 0.457           | 7/16-5B GIR    | 0.467           |
| 1/2-5T             | 1/2-5B              | 0.520           | 1/2-5B GIR     | 0.530           |
| 9/16-5T            | 9/16-5B             | 0.582           | 9/16-5B GIR    | 0.592           |
| 5/8-5T             | 5/8-5B              | 0.645           | 5/8-5B GIR     | 0.655           |
| 3/4-5T             | 3/4-5B              | 0.770           | 3/4-5B GIR     | 0.780           |

**Material:** Standard - Molded Acetal; \*\*UHMW Only  
Optional - Molded "Ultra Blue" Acetal plastic with Teflon additives  
\* UHMW

**Flange:** 1/8"      **O.D.:** .881"      **Length:** 1 1/2"      **GIR Length:** 1 3/4"



Standard Duty Bushings



Bushing Adapters

### Bushing Adapters

| Part No.        | Material             | Body O.D. | Body Length | Flange | I.D.          |
|-----------------|----------------------|-----------|-------------|--------|---------------|
| SSBA 1/2x7/8    | Stainless            | 1/2"      | 3/4"        | 1/8"   | D & T 5/16-18 |
| SSBA 9/16x1 1/4 | Stainless            | 9/16"     | 1 1/8"      | 1/8"   | D & T 5/16-18 |
| SSBA 5/8x1 1/8  | Stainless            | 5/8"      | 15/16"      | 3/16"  | D & T 5/16-18 |
| 7/16 HEX-T      | Stainless or Plastic | 5/8"      | 1 1/8"      | 1/16"  | 7/16" Hex     |

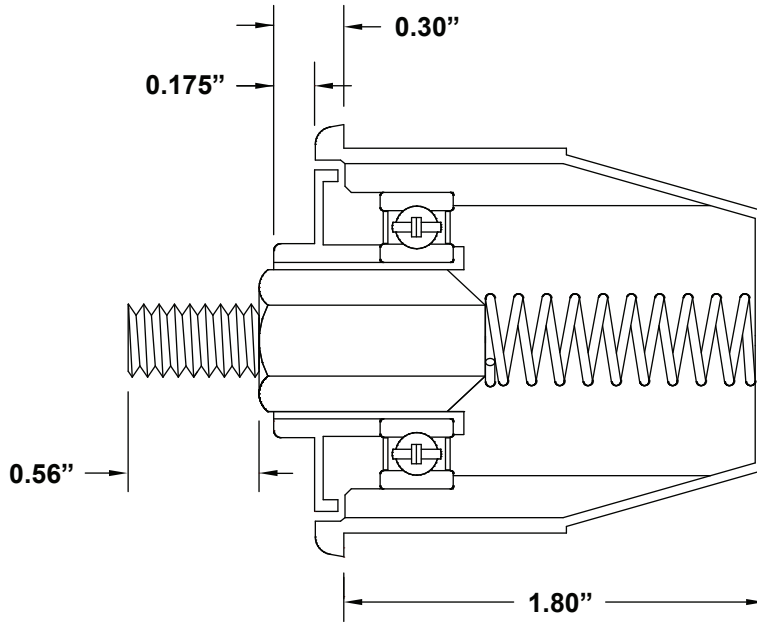
### Cap Screws

| Part No.      | Material  | Length | Threaded |
|---------------|-----------|--------|----------|
| SSCS 5/16x3/4 | Stainless | 3/4"   | 5/16-18" |



Cap Screws

**Threaded Spring Loaded Stub Pin Bearing Insert For PVC Tube**



**FOR 1 1/2  
SCH. 80 PVC**

|                 |                          |          |             |
|-----------------|--------------------------|----------|-------------|
| <b>Bearing:</b> | <b>Type:</b>             |          | <b>Qty:</b> |
|                 | ABEC-1 Precision         | Chromium | 1           |
|                 | Option: ABEC-1 Precision | 440SS    | 1           |

**Insert Material:** Acetal Plastic

|               |        |                                    |
|---------------|--------|------------------------------------|
| <b>Part #</b> | 3SP8   | 3 = ABEC-1                         |
|               | 3CP8   | SP = Stainless Pin / SS Bearing    |
|               | 3SP516 | CP = Carbon Steel Pin / CR Bearing |
|               | 3CP516 | 8 = 8mm Thread                     |
|               |        | 516 = 5/16-18 Thread               |

**Tube:** 1 1/2 SCHD 80 PVC

**Installation method:** Press fit into tube

- Ideal for washdown (with stainless steel components)
- Option for RFID (radio frequency identification) conveyor rollers - No internal metal shafts required
- Nut & washer included