

STAINLESS STEEL and PVC ROLLER CATALOG



OmniMetalcraftcorp.

Stainless Steel and PVC Rollers

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Additional Reference Material Available

- Bearing Index
- Roller Optimization and Measurement Guide
- Roller Catalog

All information is subject to change without notice. Omni reserves the right to correct any errors, inaccuracies, omissions or update content at anytime.

General Information

Stainless Steel Roller Information

Premium Class (P-Class)

P-class rollers are made from all stainless steel components and are intended for use in frequent washdown, high corrosive and food processing applications.

- Manufactured with 304 stainless steel, mill finish materials (unless otherwise noted)
- Stainless steel or polymer roller bearings
- Washdown rated
- Stainless steel sprockets and fasteners
- FDA/USDA approved materials
- Continuous MIG welds
- Rollers with thru-bore bearings are NOT water-tight; liquid may become trapped inside

Additional Options

- Polished stainless steel finishes
- 316 stainless steel materials
- Special "water-tight" roller designs utilizing blind bore bushings

Deluxe (D-Class)

D-class rollers are made of combinations from corrosion-resistant material and carbon steel materials. They are intended for use in occasional washdown and low corrosive applications.

- Standard roller designs (zinc plated, galvanized, PVC, stainless steel or aluminum tubing)
- General purpose roller bearings
- General purpose sprockets and chain
- Zinc plated fasteners
- Rollers with thru-bore bearings are NOT water-tight; liquid may become trapped inside

Surface Finishes Available

Mill Finish – Also known as rolled or unpolished finish. A mill finish is a bright, smooth, semi-reflective and non-directional finish. Exact visual appearance can vary based on different grades and thicknesses of stainless steel. Pitting, scratches, welds and tool marks may be visible on the surface. If these blemishes are cleaned up they cannot be blended to recreate an original mill finish appearance. These reworked areas will remain apparent unless additional surface finishing operations are performed. Mill Finish is the standard finish for rollers unless otherwise requested by the customer.

Glass Bead Blasted Finish – Glass bead blasting produces a bright uniform matte or frosted finish with low reflectivity and no directionality. It reduces glare from shiny stainless steel while still retaining a smooth feel. Although the surface has a consistent look it may still contain pits and scratches. The maximum surface roughness is Ra of 125 micro-inches.

Sand Blasted Finish – Sand blasting is the same operation as glass bead blasting but uses a more abrasive medium. This produces a duller and less smooth finish than glass bead blasting. Similarly the surface may still contain pits and scratches.

Polished Finish – Also known as brushed or satin finish. A polished finish is the result of additional mechanical operations which include grinding, polishing and buffing that are intended to change the appearance and condition of stainless steel metal surfaces. The most common stainless steel cosmetic polished finish is described as a No. 4 finish. It is a bright, uni-directional finish with a visible "grain" which prevents mirror reflection. It is obtained by finishing with a 120-150 mesh abrasive, following initial grinding with coarser abrasives and has a surface roughness with a maximum Ra of 32 micro-inches. Areas where welds and tool marks were cleaned up can be blended or repaired by using the same or similar polishing methods that were used to create the original polished finish. Sprocketed rollers can only be polished on the effective width.

For additional general roller information view our full [Roller Catalog](#)



General Information

Stainless Steel Roller Information (continued)

Bushings (Roll End Bearings)

Bushings, or Roll End Bearings, can be used in place of traditional ball bearings in rollers. In applications with speeds less than 150 FPM they offer many advantages.

- No moving parts to break down
- No lubrication to be washed away or dry out
- Equivalent load capacity to ball bearings
- Fit in any tube size or tube material
- Can be custom built for uncommon tube and axle size combinations
- Blind bore designs with stub axles for “water-tight” rollers
- Free-draining designs
- Available in a wide variety of materials



Based on the material they are made from bushings can be used in many applications.

- Sanitary and food applications
- High temperature applications (up to 550° F)
- Low temperature applications (down to -50° F)
- Excessively abrasive dust or debris applications
- Underwater applications
- Corrosive environments

STAINLESS STEEL and PVC ROLLERS

1 in. O.D. x 16 ga. Stainless Steel Rollers

Roller Part Number		Tube Material	Axle	Drive Options	Corrosion Type	Bearing Part Number
Spring Retained	Pin Retained					
45289	Upon Request	Stainless Steel	1/4 Dia.	Gravity	D Class	102245-O
45290	Upon Request	Stainless Steel	5/16 Hex	Gravity	D Class	102152-O

Roller Capacity Chart (lbs.)*

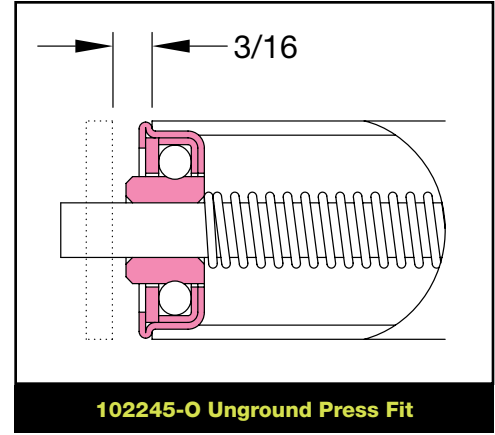
Between Frame (BF) Inches	Bearing Part Number	
	102245-O	102152-O
6	60	60
9	60	60
12	59	59
15	59	59
18	59	59
21	56	59
24	47	59
27	40	59
30	34	58
33	28	58
36	23	58
39	18	58

1 in. Pipe Rollers (1.315 in. O.D.)

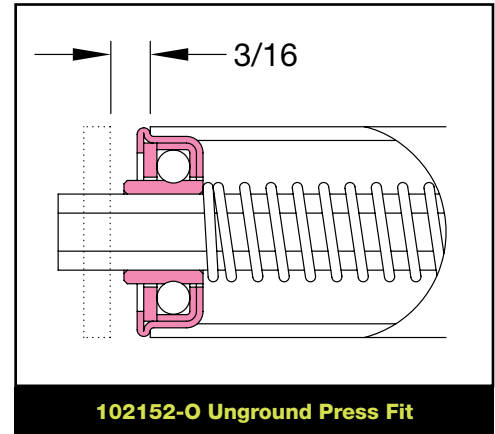
Roller Part Number		Tube Material	Axle	Drive Options	Corrosion Type	Bearing Part Number
Spring Retained	Pin Retained					
43460	43459	SCH 40 PVC**	5/16 Hex SS	Gravity	D Class	114625

Roller Capacity Chart (lbs.)*

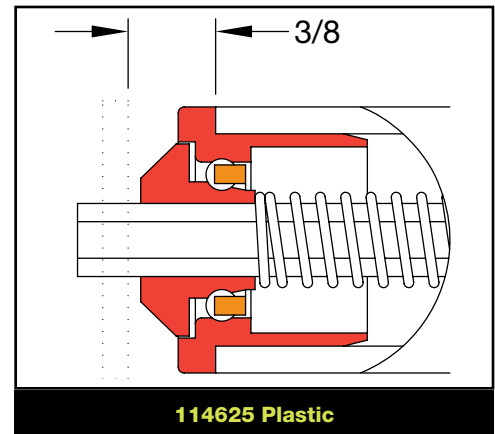
Between Frame (BF) Inches	Bearing Part Number
	114625 SCH 40 PVC**
6	80
9	80
12	68
15	54
18	44
21	37
24	30
27	23
30	18
33	15
36	12
39	10



102245-O Unground Press Fit



102152-O Unground Press Fit



114625 Plastic

*The dimension above include 1/16" clearance between the extension on the bearing and the side frame at each end.

*Larger Between Frames and higher capacities may be achieved with a center support puck.

*Roller Between Frame lengths available between values shown in the table.

*Roller Between Frames can be shorter than values shown utilizing pin retention.

**PVC Pipe is Industrial grade. At longer lengths T.I.R. cannot be guaranteed.



Standard Part Numbering System

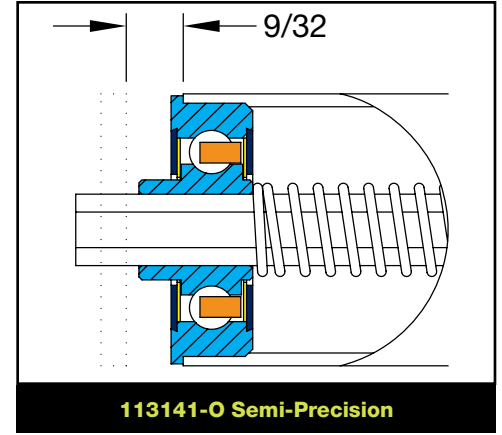
Example: 27369 - 17
 Roller Part Number BF

1 3/8 in. O.D. x 16 ga. Stainless Steel Rollers

Roller Part Number		Tube Material	Axle	Drive Options	Corrosion Type	Bearing Part Number
Spring Retained	Pin Retained					
42007	42008	Stainless Steel	5/16 Hex SS	Gravity	P Class	113141-O

Roller Capacity Chart (lbs.)*

Between Frame (BF) Inches	Bearing Part Number
6	182
9	181
12	171
15	133
18	108
21	90
24	76
27	65
30	55
33	47
36	40
39	33



*The dimension above include 1/16" clearance between the extension on the bearing and the side frame at each end.

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Standard Part Numbering System

Example: 27369 - 17
 Roller Part Number BF



Unground



Unground Stainless Steel



Semi-Precision



Semi-Precision Stainless Steel



Precision



Precision Stainless Steel



Plastic



Seals



Shields



Ball Retainer (Cage)



Keeper Bar

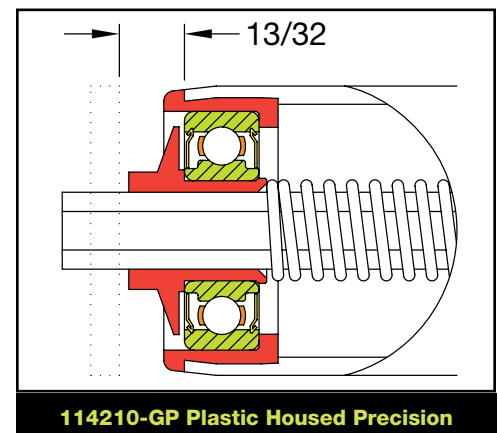
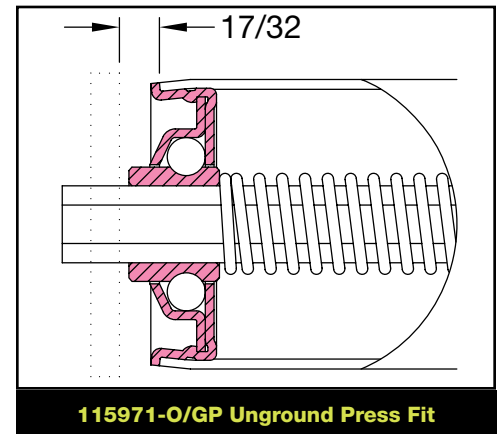
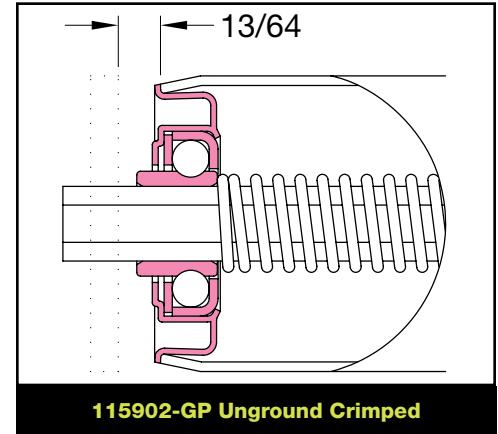
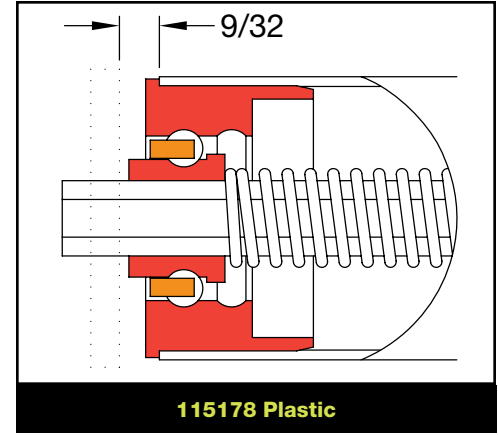
STAINLESS STEEL and PVC ROLLERS

1.9 in. O.D. x 16 ga. Stainless Steel Rollers

Roller Part Number		Tube Material	Axle	Drive Options	Corrosion Type	Bearing Part Number
Spring Retained	Pin Retained					
44509	44510	Stainless Steel	7/16 Hex SS	Gravity	P Class	115178
44476	44477	Stainless Steel	7/16 Hex SS	Gravity	D Class	115902-GP
45269	45271	Stainless Steel	7/16 Hex SS	Gravity	P Class	115971-O
45273	45274	Stainless Steel	7/16 Hex SS	Gravity	P Class	115971-GP
45250	45249	Stainless Steel	7/16 Hex SS	Gravity	P Class	114210-GP

Roller Capacity Chart (lbs.)*

Between Frame (BF) Inches	Bearing Part Number			
	115178	115902-GP	115971-O 115971-GP	114210-GP
6	137	259	279	376
12	137	259	279	373
18	136	258	278	369
24	136	257	277	269
30	135	257	277	207
36	134	256	264	164
42	134	233	211	131
48	133	186	169	103
54	132	145	132	80
60	110	109	98	59
66	75	74	67	39
72	42	42	37	20



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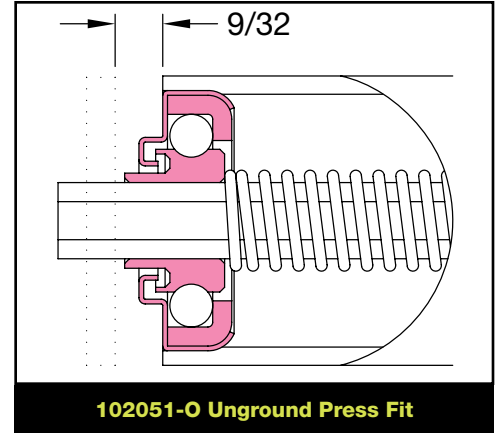


Standard Part Numbering System

Example: 27369 - 17
 Roller Part Number BF

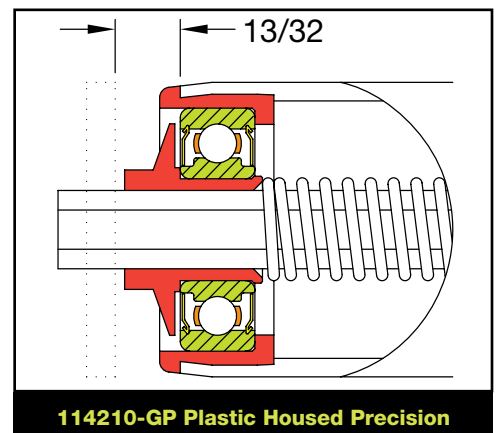
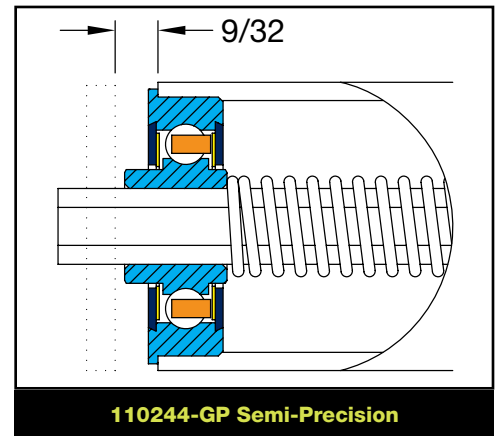
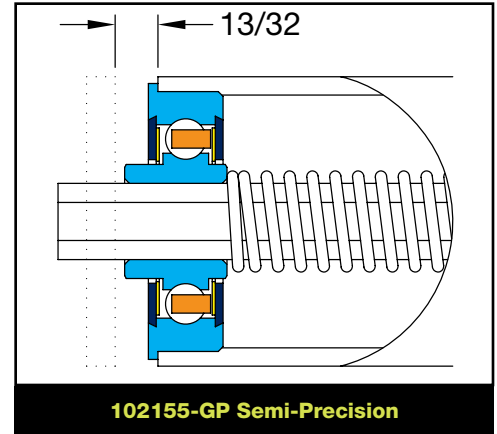
1.9 in. O.D. x 11 ga. Stainless Steel Rollers

Roller Part Number		Tube Material	Axle	Drive Options	Corrosion Type	Bearing Part Number
Spring Retained	Pin Retained					
28781	28782	Stainless Steel	7/16 Hex Mild Steel	Gravity	D Class	102051-O
Upon Request	45272	Stainless Steel	7/16 Hex Mild Steel	Gravity	D Class	102155-GP
44995	44994	Stainless Steel	7/16 Hex SS	Gravity	P Class	110244-GP
44997	44996	Stainless Steel	7/16 Hex SS	40A18 Sprockets	P Class	
44999	44998	Stainless Steel	7/16 Hex SS	50A15 Sprockets	P Class	
45001	45000	Stainless Steel	7/16 Hex SS	60A13 Sprockets	P Class	114210-GP
42269	42268	Stainless Steel	7/16 Hex SS	Gravity	P Class	
45188	Upon Request	Stainless Steel	7/16 Hex SS	2 Grooves	P Class	



Roller Capacity Chart (lbs.)*

Between Frame (BF) Inches	Bearing Part Number			
	102051-O	102155-GP	110244-GP	114210-GP
6	299	566	283	376
12	298	518	282	372
18	297	332	281	368
24	296	239	280	267
30	293	182	214	205
36	232	141	166	161
42	186	109	129	127
48	148	83	97	99
54	115	59	69	76
60	85	38	43	54
66	58	N/A	18	34
72	32	N/A	N/A	N/A



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*Roller Between Frames can be shorter than values shown utilizing pin retention.

**PVC Pipe is Industrial grade. At longer lengths T.I.R. cannot be guaranteed.

Standard Part Numbering System

Example: $\frac{27369}{\text{Roller Part Number}} - \frac{17}{\text{BF}}$



*The dimension above include 1/16" clearance between the extension on the bearing and the side frame at each end.

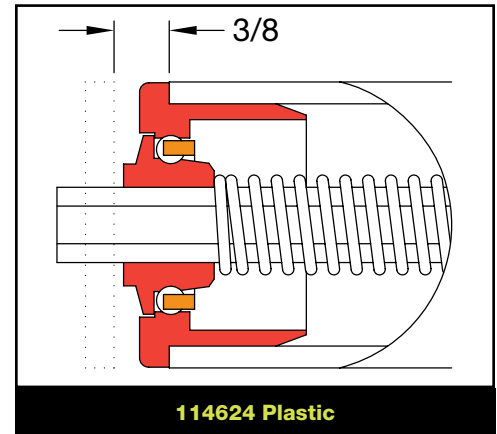
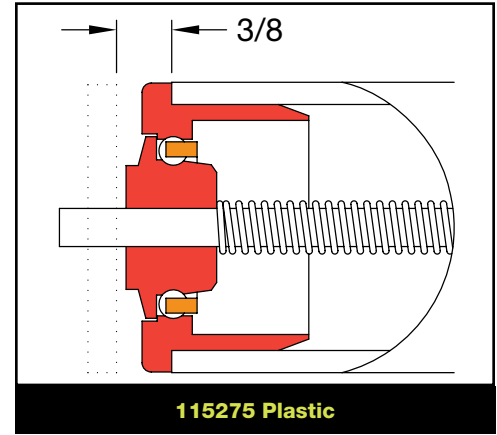
STAINLESS STEEL and PVC ROLLERS

1 1/2 in. Pipe Rollers (1.9 in. O.D.)

Roller Part Number		Tube Material	Axle	Drive Options	Corrosion Type	Bearing Part Number
Spring Retained	Pin Retained					
45099	Upon Request	SCH 40 PVC**	1/4 Dia. SS	Gravity	D Class	115275
43462	43461	SCH 40 PVC**	7/16 Hex SS	Gravity	D Class	114624

Roller Capacity Chart (lbs.)*

Between Frame (BF) Inches	Bearing Part Number	
	115275 SCH 40 PVC**	114624 SCH 40 PVC**
6	80	80
12	80	80
18	54	79
24	38	79
30	27	63
36	18	44
42	11	32
48	N/A	23
54	N/A	18
60	N/A	14



*The dimension above include 1/16" clearance between the extension on the bearing and the side frame at each end.

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Unground



Unground
Stainless Steel



Semi-Precision



Semi-Precision
Stainless Steel



Precision



Precision
Stainless Steel



Plastic



Seals



Shields



Ball Retainer
(Cage)



Keeper
Bar

Standard Part Numbering System

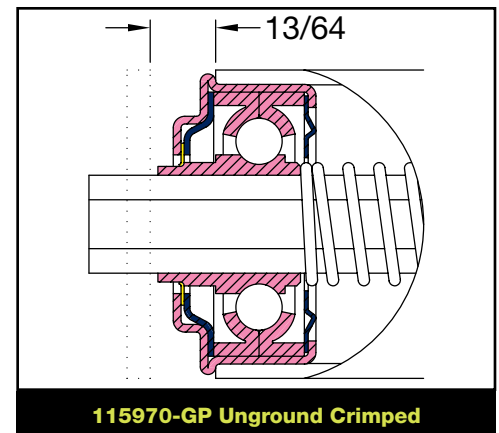
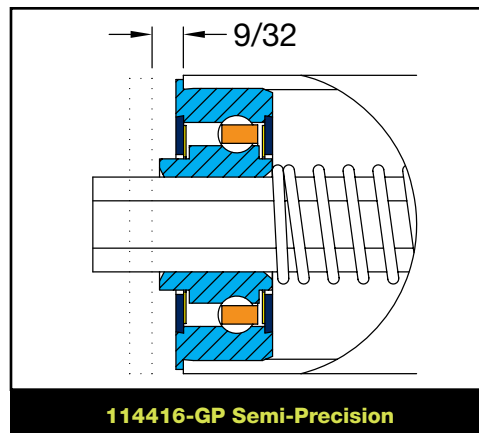
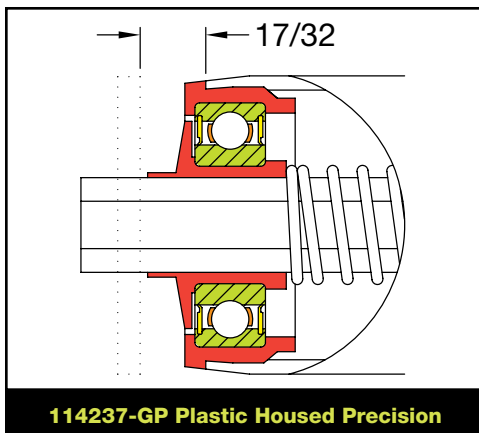
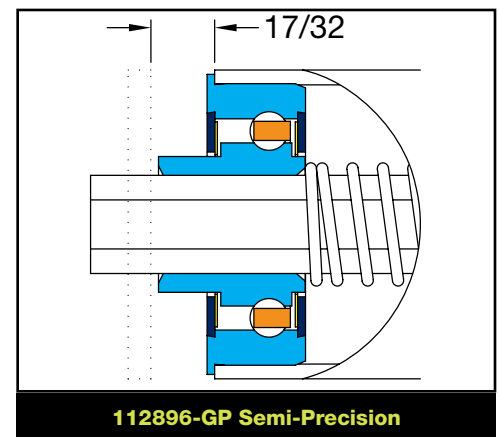
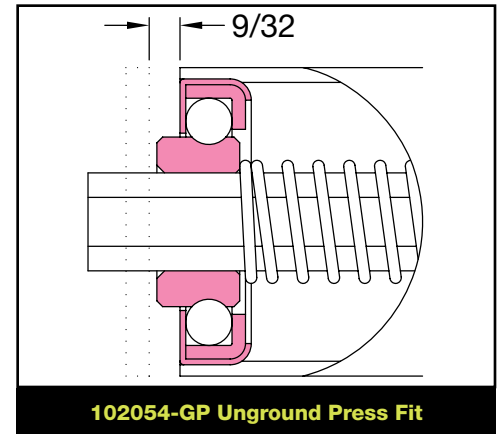
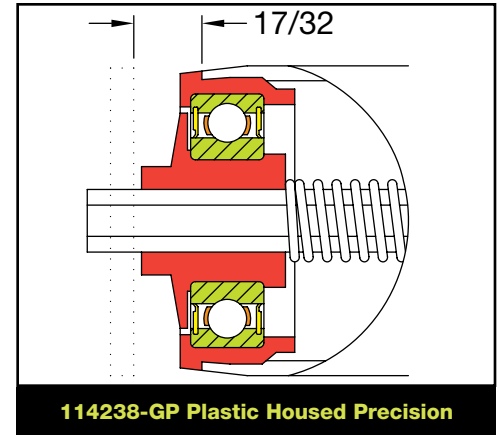
Example: 27369 - 17
 Roller Part Number BF

2 1/2 in. O.D. x 11 ga. Stainless Steel Rollers

Roller Part Number		Tube Material	Axle	Drive Options	Corrosion Type	Bearing Part Number
Spring Retained	Pin Retained					
42415	42414	Stainless Steel	7/16 Hex SS	Gravity	P Class	114238-GP
40508	40507	Stainless Steel	11/16 Hex Mild Steel	Gravity	D Class	102054-GP
40510	40509	Stainless Steel	11/16 Hex Mild Steel	Gravity	D Class	112896-GP
40512	40511	Stainless Steel	11/16 Hex Mild Steel	40A22 Sprockets	D Class	
40514	40513	Stainless Steel	11/16 Hex Mild Steel	50A17 Sprockets	D Class	
40516	40515	Stainless Steel	11/16 Hex Mild Steel	60A15 Sprockets	D Class	
45268	45270	Stainless Steel	11/16 Hex SS	Gravity	P Class	115970-GP
44889	44888	Stainless Steel	11/16 Hex SS	Gravity	P Class	114416-GP
44891	44890	Stainless Steel	11/16 Hex SS	40A22 Sprockets	P Class	
44893	44892	Stainless Steel	11/16 Hex SS	50A17 Sprockets	P Class	
44895	44894	Stainless Steel	11/16 Hex SS	60A15 Sprockets	P Class	
42413	42412	Stainless Steel	11/16 Hex SS	Gravity	P Class	

Roller Capacity Chart (lbs.)*

Between Frame (BF) Inches	Bearing Part Number					
	114238-GP	102054-GP	112896-GP	115970-GP	114416-GP	114237-GP
6	330	649	1349	849	699	599
12	327	647	1344	847	697	597
18	323	646	1300	846	696	596
24	235	644	946	844	694	594
30	178	642	736	843	692	593
36	139	641	594	812	691	591
42	109	639	490	674	612	590
48	84	638	408	568	510	588
54	62	636	340	480	425	563
60	42	635	282	406	351	477
66	24	633	231	341	285	401
72	N/A	544	183	282	225	333
78	N/A	459	139	228	168	270
84	N/A	385	97	177	114	211
90	N/A	294	56	128	61	154
96	N/A	207	N/A	80	N/A	99
102	N/A	122	N/A	34	N/A	45
108	N/A	37	N/A	N/A	N/A	N/A



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**PVC Pipe is Industrial grade. At longer lengths T.I.R. cannot be guaranteed.

Standard Part Numbering System

Example: 27369 - 17
 Roller Part Number BF



*The dimension above include 1/16" clearance between the extension on the bearing and the side frame at each end.

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