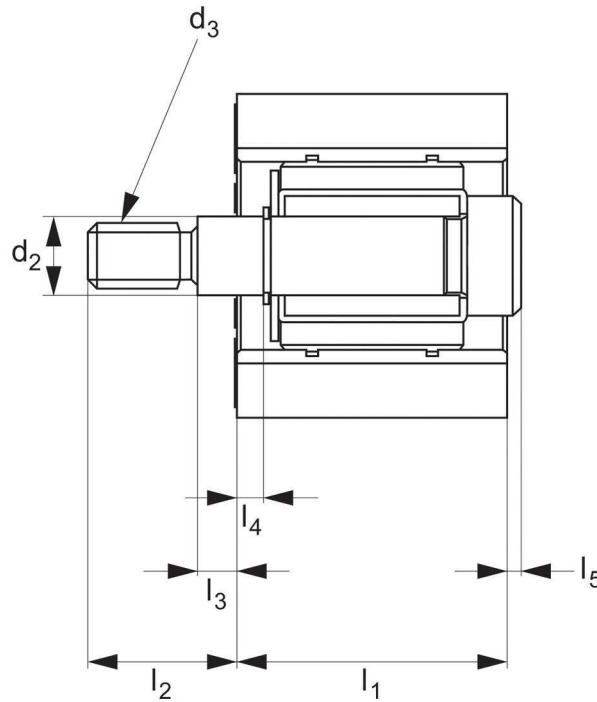
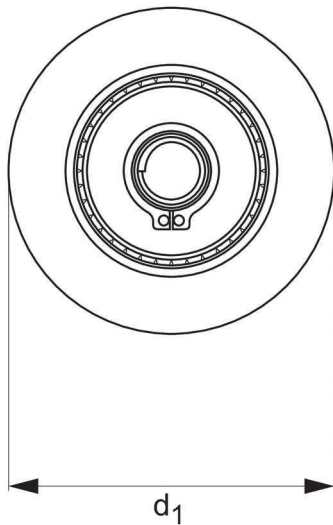


# Solid Roller

clutch bearing



# 60628



### Material

Nitrile, urethane or neoprene bonded to a steel insert.  
Hardness from 20-80 durometer (Shore A).

### Technical Notes

A clutch bearing allows the roller to turn in only one direction. Available in left or right hand rotation (with the stud pointed upwards, a right hand rotation turns clockwise.)  
Supplied with type I bearing, other  $d_1=38,1$  roller which is supplied with type h bearing.

### Tips

Type R = Right handed clutch bearing.  
Type L = Left handed clutch bearing.  
See technical introduction pages for further information.

Order No. Nitrile	Order No. Urethane	Type	Duro	$d_1$	$l_1$	$d_2$ -0 +0.05	$d_3$	$l_2$	$l_3$	$l_4$	$l_5$
60628.W1002	-	Right	20	38,10	31,75	9,42	5/16-18"	17,53	4,83	3,05	1,52
60628.W1003	60628.W2003	Right	35	38,10	31,75	9,42	5/16-18"	17,53	4,83	3,05	1,52
60628.W1006	60628.W2006	Right	60	38,10	31,75	9,42	5/16-18"	17,53	4,83	3,05	1,52
60628.W1008	60628.W2008	Right	80	38,10	31,75	9,42	5/16-18"	17,53	4,83	3,05	1,52
60628.W1012	-	Left	20	38,10	31,75	9,42	5/16-18"	17,53	4,83	3,05	1,52
60628.W1013	60628.W2013	Left	35	38,10	31,75	9,42	5/16-18"	17,53	4,83	3,05	1,52
60628.W1016	60628.W2016	Left	60	38,10	31,75	9,42	5/16-18"	17,53	4,83	3,05	1,52
60628.W1018	60628.W2018	Left	80	38,10	31,75	9,42	5/16-18"	17,53	4,83	3,05	1,52
60628.W1032	-	Left	20	50,80	23,37	15,77	1/2-13"	45,47	26,42	3,05	10,41
60628.W1022	-	Right	20	50,80	23,37	15,77	1/2-13"	45,47	26,42	3,05	10,41
60628.W1023	60628.W2023	Right	35	50,80	23,37	15,77	1/2-13"	45,47	26,42	3,05	10,41
60628.W1026	60628.W2026	Right	60	50,80	23,37	15,77	1/2-13"	45,47	26,42	3,05	10,41
60628.W1028	60628.W2028	Right	80	50,80	23,37	15,77	1/2-13"	45,47	26,42	3,05	10,41
60628.W1033	60628.W2033	Left	35	50,80	23,37	15,77	1/2-13"	45,47	26,42	3,05	10,41
60628.W1036	60628.W2036	Left	60	50,80	23,37	15,77	1/2-13"	45,47	26,42	3,05	10,41
60628.W1038	60628.W2038	Left	80	50,80	23,37	15,77	1/2-13"	45,47	26,42	3,05	10,41
60628.W1052	-	Left	20	50,80	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1042	-	Right	20	50,80	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1043	60628.W2043	Right	35	50,80	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1046	60628.W2046	Right	60	50,80	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1048	60628.W2048	Right	80	50,80	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1053	60628.W2053	Left	35	50,80	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1056	60628.W2056	Left	60	50,80	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1058	60628.W2058	Left	80	50,80	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1072	-	Left	20	63,50	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1062	-	Right	20	63,50	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1063	60628.W2063	Right	35	63,50	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1066	60628.W2066	Right	60	63,50	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1068	60628.W2068	Right	80	63,50	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1073	60628.W2073	Left	35	63,50	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1076	60628.W2076	Left	60	63,50	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1078	60628.W2078	Left	80	63,50	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1082	-	Right	20	63,50	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1092	-	Left	20	63,50	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1083	60628.W2083	Right	35	63,50	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1086	60628.W2086	Right	60	63,50	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1088	60628.W2088	Right	80	63,50	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1093	60628.W2093	Left	35	63,50	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1096	60628.W2096	Left	60	63,50	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1098	60628.W2098	Left	80	63,50	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1102	-	Right	20	101,6	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1103	60628.W2103	Right	35	101,6	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41

# Solid Roller

clutch bearing



# 60628

Order No. Nitrile	Order No. Urethane	Type	Duro	d <sub>1</sub>	l <sub>1</sub>	d <sub>2</sub> -0 +0,05	d <sub>3</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>
60628.W1106	60628.W2106	Right	60	101,6	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1108	60628.W2108	Right	80	101,6	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1112	-	Left	20	101,6	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1113	60628.W2113	Left	35	101,6	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1116	60628.W2116	Left	60	101,6	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1118	60628.W2118	Left	80	101,6	23,27	15,77	1/2-13"	31,75	26,42	3,05	10,41
60628.W1122	-	Right	20	101,6	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1123	60628.W2123	Right	35	101,6	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1126	60628.W2126	Right	60	101,6	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1128	60628.W2128	Right	80	101,6	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1132	-	Left	20	101,6	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1133	60628.W2133	Left	35	101,6	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1136	60628.W2136	Left	60	101,6	49,28	15,77	1/2-13"	31,75	12,70	3,05	-
60628.W1138	60628.W2138	Left	80	101,6	49,28	15,77	1/2-13"	31,75	12,70	3,05	-



### Material

Nitrile, urethane or neoprene bonded to a steel insert.  
Hardness from 20-80 durometer (Shore A).

### Technical Notes

A clutch bearing allows the roller to turn in only one direction. Available in left or right hand rotation (with the stud pointed upwards, a right hand rotation turns clockwise.)  
Supplied with type I bearing, other d<sub>1</sub>=38,1 roller which is supplied with type h bearing.

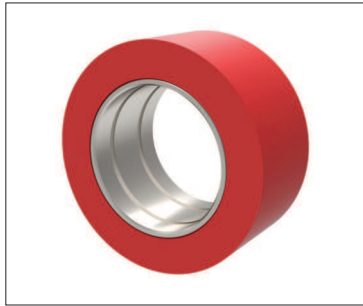
### Tips

Type R = Right handed clutch bearing.  
Type L = Left handed clutch bearing.  
See technical introduction pages for further information.

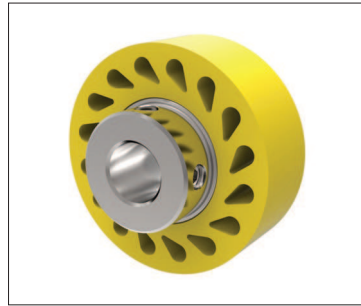


## Wixroyd Rollers

### Product overview



**Solid rollers** - have a smooth surface and a solid body



**Durasoft rollers** - have a smooth contact surface with teardrop holes to allow greater roller compression under load.



**Finned rollers** - are grooved and provide self-cleaning as dirt, debris and liquid pass under the contact surface of the roller.

### Durability levels



20 durometer:  
Stiff foam rubber



35 durometer:  
Pencil rubber top



60 durometer:  
Car tyre

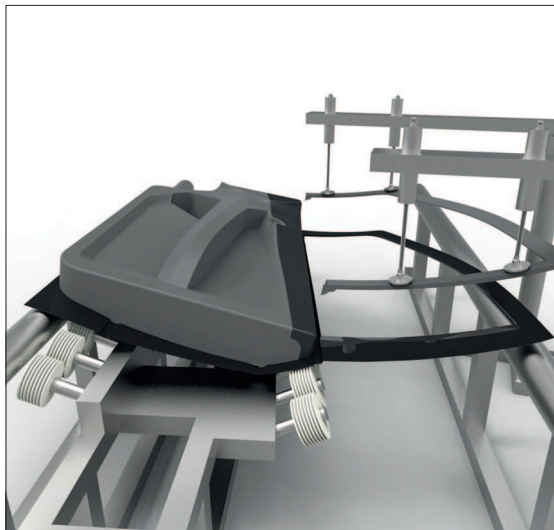


80 durometer:  
Skateboard wheel

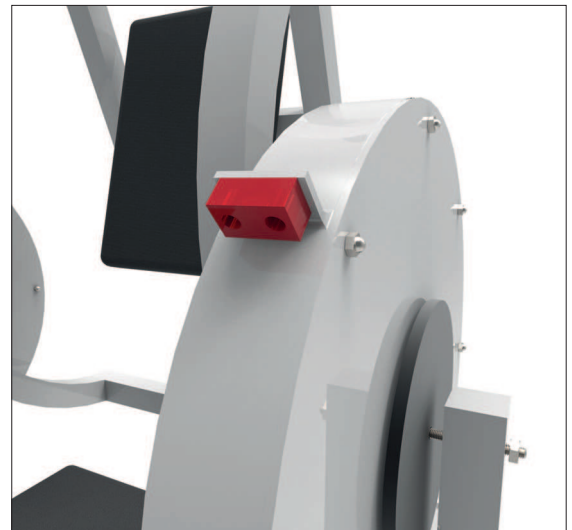


90 durometer:  
Hockey puck

### Applications



Rollers are used in car manufacturing to guide and align doors during bonding and curing applications



Bumpers have found their way into commercial exercise equipment to provide protection and stability during use.



## Materials colour guide and properties



**Nitrile and neoprene**

Nitrile - one colour

Neoprene - one colour

**Urethane**

35 Durometer (Yellow)

60 Durometer (Blue)

80 Durometer (Red)

95 Durometer (Orange)

Base Elastomer	Chemical Name	Advantages	Disadvantages	Max. Temp	Min. Temp	Material properties
Nitrile	Nitrile Butadiene	Resistant to petroleum, oil, alcohol & abrasion.	Affected by degreaser solvents.	Continuous 79°C Intermittent 107°C	-51°C	
Neoprene	Chloroprene	Flame and weather resistant. Resistant to Petroleum, oil, ozone & high temp.	Affected by phosphate hydraulic fluids, aromatic hydrocarbons.	Continuous 93°C Intermittent 121°C	-40°C	
Urethane	Di-Isocyanate Polyurethane	Highest abrasion resistance, strength & load bearing. High elongation, hardness. Resistance to Ozone & Oxygen.	Affected by ether, esters, acid, aromatics, alkalis.	Continuous 93°C Intermittent 121°C	-54°C	

Property:	Nitrile	Neoprene	Urethane
Tensile Strength	3 3	3 3 3	3 3 3 3
Ozone Resistance	3	3 3	3 3 3 3
Cut Resistance	3 3	3 3 3	3 3 3 3
Abrasion Resistance	3 3	3 3 3	3 3 3 3

Resistance To:	Nitrile	Neoprene	Urethane
Compression Set	3 3	3 3 3	3 3 3
ASTM #1 Oil	3 3 3 3	3 3	3 3 3 3
ASTM #2 Oil	3 3 3 3	3 3	3 3 3 3
Reference Fuel B	3 3 3	3 3	3 3 3 3
Ketones: MEK	3	3 3	3
Aromatics: Toluene	3 3 3	3	3 3 3 3
Aliphatics: Hexane	3 3 3 3	3 3 3	3 3 3 3
Ethyl Acetate	3	3 3 3	3
Cellosolve	3 3	3 3 3 3	3
Methylene Chloride	3	3	3 3 3 3
Trichloroethylene	3	3	3 3 3 3
Diethylene Glycol	3 3 3 3	3 3 3 3	3 3 3
Isopropyl Alcohol	3 3 3	3 3 3	3 3 3
Caustics: 10% NaOH	3 3 3	3 3 3	3
Acids: H2SO4	3 3	3 3 3	3

Excellent 3 3 3 3    Good 3 3 3    Fair 3 3    Poor 3



The tables below show the maximum theoretical radius loads that can be applied to the respective bearings. Refer to individual product tables to identify bearing type supplied with roller.

### Standard bearings

Bearing Type	Inside diameter (inches)	Outside diameter (inches)	Width (inches)	Load (Kg)	Speed (rpm)
A - Standard Double	.313/.317	.870/.875	.498/.502	55	50
				36	100
				24	250
				20	500
B - Standard Single	.500/505	1.245/1.250	.370/.380	119	50
				79	100
				51	250
				47	500
C - Standard Double	.500/505	1.245/1.250	.745/.755	192	50
				128	100
				83	250
				70	500

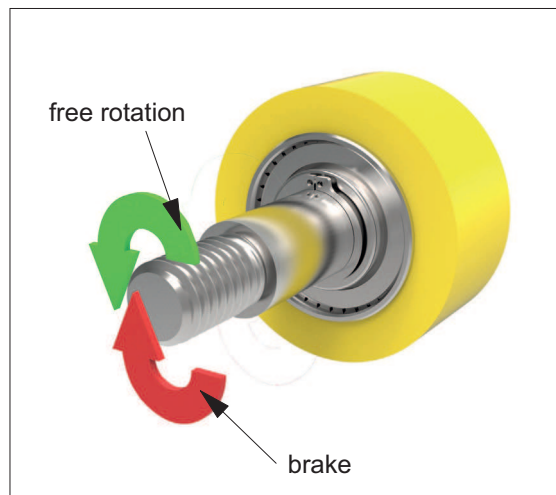
With the calculations above, typical life is approximately 2500 hours.

### Clutch bearings

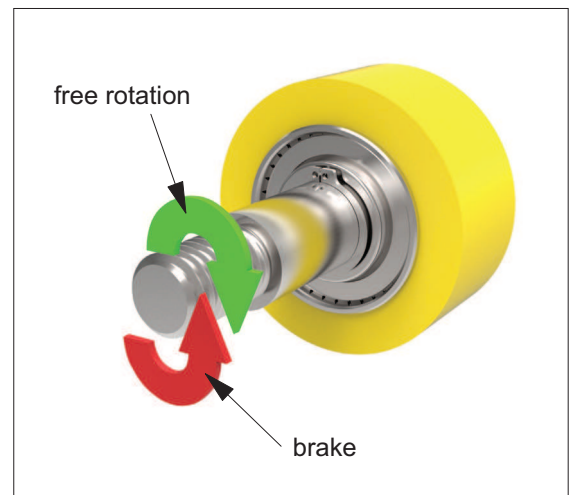
Bearing Type	Inside diameter (inches)	Outside diameter (inches)	Width (inches)	Load (Kg)	Speed (rpm)
H	.3745/.3750	.6245/.6255	.865/.875	167	33
				146	50
				116	100
				85	250
I	.6245/.6250	.8745/.8755	.990/1.000	277	33
				242	50
				192	100
				142	250

With the calculations above, typical life is approximately 1,000,000 revolutions or 500 hours. The bearings are shielded and pre-lubricated for life with grease.

A clutch roller can only be used in one direction, as shown. See data table for clutch direction of particular part.



Left clutch bearing



Right clutch bearing