

# D4 DEFENDER STAINLESS STEEL Series

Capacity up to 1250 lbs each

Swivel & Rigid



## Features

- Constructed of highly polished, corrosion resistant stainless steel (304 Grade)
- Top plate and legs formed from 1/4" thick stainless steel for durability
- Legs precision welded to yoke for strength
- Double stainless steel ball bearing raceways (with zerk) formed smooth for ease of swiveling
- 3/4" 304 Stainless steel permanent rivet kingpin for long swivel life
- Food grade -40°F to 600°F performance grease (FDA approved)
- 1/2" diameter 304 stainless steel zerk axle standard; solid axle available by special order
- NSF listed

The D4 Defender Series is the ideal 2" wide caster solution for customers requiring lasting performance and corrosion resistance. Manufactured from Type 304 stainless steel, this series provides critical defense to applications exposed to washdowns, cleaning agents, steam, caustic solutions, and other environmental conditions that eventually cause oxidation and failure in standard casters.



## Brake Selection



### Top Lock

Applies positive engagement to tread surface of wheel when activated for a secure lock; available on all swivel models (Specify **BRK7**; Example: D4.06109.839 EN **BRK7** SS WB29).



### Side Lock

Large brake pedal places positive locking force against wheel hub when activated; available on all swivel casters with roller bearing (Specify **BRK3**; Example: D4.06109.929 **BRK3** SS WB29).



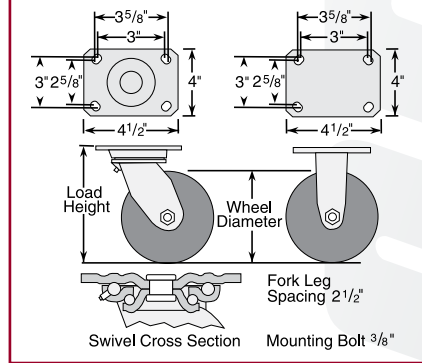
### Total Lock

Locks wheel and swivel simultaneously. Total lock rig rated to 300°F continuous (Specify **BRK4**; Example: D4.06109.459 **BRK4** SS WB29).

### Brake Swivel Radius

DIA.	BRK4	BRK7	BRK3
4"	5 <sup>15</sup> / <sub>16</sub> "	4 <sup>15</sup> / <sub>16</sub> "	4 <sup>15</sup> / <sub>16</sub> "
5"	6 <sup>3</sup> / <sub>8</sub> "	5 <sup>1</sup> / <sub>8</sub> "	5 <sup>1</sup> / <sub>8</sub> "
6"	6 <sup>3</sup> / <sub>4</sub> "	5 <sup>3</sup> / <sub>8</sub> "	5 <sup>3</sup> / <sub>8</sub> "
8"	6 <sup>15</sup> / <sub>16</sub> "	6 <sup>1</sup> / <sub>2</sub> "	6 <sup>1</sup> / <sub>2</sub> "

## Standard Dimensions



## Fork / Wheel Options

### Forks Only

To order caster forks only use 1st 7 digits of model numbers and add SS (Example: D4.04109 SS).



### Hand Operated Bolt-on Swivel Lock

Available for all swivel models (field installable); order part **SWWLOCKX2SS** separately. For welded version, please consult factory.



### Foot Activated Swivel Lock

Available for all swivel models (field installable); order part **05213.67** separately.



### DirtBan Swivel Seals (Upper and Lower Raceways)

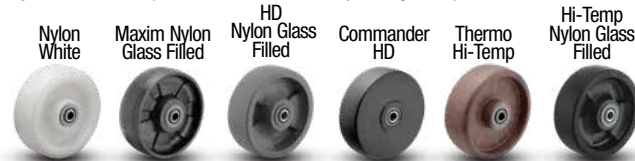
Not compatible with Total Lock brake and swivel locks. Temperature rating: 140°F (Specify **SEAL**; Example: D4.06109.929 SS SEAL).

### Fork Temperature Range

Standard swivel rigs rated up to 600°F; see specified wheel and bearing ratings to determine maximum caster temperature rating.

## Wheel Selection

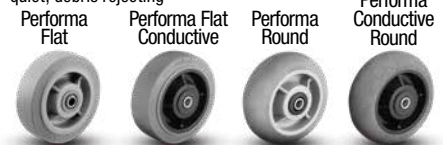
**Nylon Models:** Temperature/moisture versatility, strong, floor protective



**Polyurethane Models:** Versatile & floor protective, softer than nylon/metal for quieter ride



**Rubber Models:** Floor protective, shock absorbing, quiet, debris rejecting



**Phenolic Models:** Economical & strong, not recommended for moisture



**Polyolefin Models:** Most Economical, light weight, and water resistant



Thicker 3/4" kingpin lasts up to 2x longer!



Defender 3/4" kingpin rigs last up to 2x longer in internal durability testing compared to standard 5/8" kingpin constructions

HIGH HEAT WHEEL	*CONTINUOUS TEMPERATURE RANGE
Thermo Hi-Temp	up to +480°F
Hi-Temp Nylon Glass Filled	up to +480°F
Phenolic Hi-Temp	up to +475°F
Retort Hi-Temp	up to +290°F

\*Temperature range dependent on bearing choice, see next page for bearing temperature specifications.

**Colson D4 Series Casters • Defender Stainless Steel Top Plate Swivel & Rigid • Capacity to 1250 lbs**

Wheel Dia.	Tread Width	Capacity Each (Pounds)	Wheel Descriptions	Swivel Top Plate SS Roller Bearing Models	Rigid Top Plate SS Roller Bearing Models	Optional Bearings (order information in below chart)	Load Height	Swivel Radius	Weight (Pounds) Rigid Deduct 1.5 lbs)		
4"	2"	300	Perma Conductive (Flat)	D4.04109.459 COND SS WB29	D4.04108.459 COND SS WB29	PPBB	5-5/8"	3-3/8"	5-1/4		
		400	Perma (Flat)	D4.04109.459 SS WB29	D4.04108.459 SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5-1/4		
		400	Perma (Round)	D4.04109.559 SS WB29	D4.04108.559 SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5-1/4		
			Retort Hi-Temp	D4.04109.839 RW SS WB29	D4.04108.839 RW SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
		500	Polyolefin	D4.04109.839 SS WB29	D4.04108.839 SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	3-3/4		
			Eagle Polyurethane	D4.04109.929 EG SS WB29	D4.04108.929 EG SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
		600	Polyurethane Hi-TECH	D4.04109.929 SS WB29	D4.04108.929 SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
			K Solid Polyurethane*	D4.04109.935 KW SS	D4.04108.935 KW SS	Delrin, Bronze	5-5/8"	3-3/8"	4-1/4		
		700	Phenolic - High Temp	D4.04109.339 HT SS WB29	D4.04108.339 HT SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
			Phenolic	D4.04109.339 SS WB29	D4.04108.339 SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
		800	Maxim Nylon Glass Filled	D4.04109.539 SS WB29	D4.04108.539 SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
			Hi-Temp Nylon Glass Filled	D4.04109.839 HTBLK SS WB29	D4.04108.839 HTBLK SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
		900	Thermo Hi-Temp	D4.04109.839 HT SS WB29	D4.04108.839 HT SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
			White Nylon	D4.04109.539 WN SS WB29	D4.04108.539 WN SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
		1000	HD Nylon Glass Filled	D4.04109.839 DT SS WB29	D4.04108.839 DT SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5		
			Endura Solid Elastomer	D4.04109.839 EN SS WB29	D4.04108.839 EN SS WB29	Delrin, Bronze, PPBB	5-5/8"	3-3/8"	5-3/4		
		1250	Commander HD*	D4.04109.5PN SS	D4.04108.5PN SS	SS Prec. Ball Standard	5-5/8"	3-3/8"	7		
		5"	2"	325	Perma Conductive (Flat)	D4.05109.459 COND SS WB29	D4.05108.459 COND SS WB29	PPBB	6-1/2"	4-1/8"	5-1/2
				425	Perma (Round)	D4.05109.559 SS WB29	D4.05108.559 SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/2
				500	Perma (Flat)	D4.05109.459 SS WB29	D4.05108.459 SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/2
650	Retort Hi-Temp			D4.05109.839 RW SS WB29	D4.05108.839 RW SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
	Polyolefin			D4.05109.839 SS WB29	D4.05108.839 SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	4-1/2		
750	Polyurethane Hi-TECH			D4.05109.929 SS WB29	D4.05108.929 SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
	Eagle Polyurethane			D4.05109.929 EG SS WB29	D4.05108.929 EG SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
900	Phenolic - High Temp			D4.05109.339 HT SS WB29	D4.05108.339 HT SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
	Phenolic			D4.05109.339 SS WB29	D4.05108.339 SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
1000	Maxim Nylon Glass Filled			D4.05109.539 SS WB29	D4.05108.539 SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
	White Nylon			D4.05109.539 WN SS WB29	D4.05108.539 WN SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
1200	Endura Solid Elastomer			D4.05109.839 EN SS WB29	D4.05108.839 EN SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-7/8		
	Hi-Temp Nylon Glass Filled			D4.05109.839 HTBLK SS WB29	D4.05108.839 HTBLK SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
1250	K Solid Polyurethane*			D4.05109.935 KW SS	D4.05108.935 KW SS	Delrin, Bronze	6-1/2"	4-1/8"	5		
	Thermo Hi-Temp			D4.05109.839 HT SS WB29	D4.05108.839 HT SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
1200	HD Nylon Glass Filled			D4.05109.839 DT SS WB29	D4.05108.839 DT SS WB29	Delrin, Bronze, PPBB	6-1/2"	4-1/8"	5-1/4		
	Commander HD*			D4.05109.5PN SS	D4.05108.5PN SS	SS Prec. Ball Standard	6-1/2"	4-1/8"	8		
6"	2"			410	Perma Conductive (Flat)	D4.06109.459 COND SS WB29	D4.06108.459 COND SS WB29	PPBB	7-1/2"	4-7/8"	5-3/4
				450	Perma Conductive (Round)	D4.06109.559 COND SS WB29	D4.06108.559 COND SS WB29	PPBB	7-1/2"	4-7/8"	5-3/4
				600	Perma (Flat)	D4.06109.459 SS WB29	D4.06108.459 SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	5-3/4
		Retort Hi-Temp	D4.06109.839 RW SS WB29		D4.06108.839 RW SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	5-1/2		
		700	Polyolefin	D4.06109.839 SS WB29	D4.06108.839 SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	4-3/4		
			Polyurethane Hi-TECH	D4.06109.929 SS WB29	D4.06108.929 SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	5-3/4		
		900	Endura Solid Elastomer	D4.06109.839 EN SS WB29	D4.06108.839 EN SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	6		
			Thermo Hi-Temp	D4.06109.839 HT SS WB29	D4.06108.839 HT SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	5-3/4		
		1100	Eagle Polyurethane	D4.06109.929 EG SS WB29	D4.06108.929 EG SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	5-3/4		
			Phenolic - High Temp	D4.06109.339 HT SS WB29	D4.06108.339 HT SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	6-1/4		
		1200	Phenolic	D4.06109.339 SS WB29	D4.06108.339 SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	6-1/4		
			Maxim Nylon Glass Filled	D4.06109.539 SS WB29	D4.06108.539 SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	5-3/4		
		1200	White Nylon	D4.06109.539 WN SS WB29	D4.06108.539 WN SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	6-1/4		
			Hi-Temp Nylon Glass Filled	D4.06109.839 HTBLK SS WB29	D4.06108.839 HTBLK SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	5-3/4		
		1250	HD Nylon Glass Filled	D4.06109.839 DT SS WB29	D4.06108.839 DT SS WB29	Delrin, Bronze, PPBB	7-1/2"	4-7/8"	6-1/4		
			K Solid Polyurethane*	D4.06109.935 KW SS	D4.06108.935 KW SS	Delrin, Bronze	7-1/2"	4-7/8"	5-1/2		
		1250	Commander HD*	D4.06109.5PN SS	D4.06108.5PN SS	SS Prec. Ball Standard	7-1/2"	4-7/8"	9-3/4		
			500	Perma Conductive (Flat)	D4.08109.459 COND SS WB29	D4.08108.459 COND SS WB29	PPBB	9-1/2"	6-3/8"	6	
		600	Perma Conductive (Round)	D4.08109.559 COND SS WB29	D4.08108.559 COND SS WB29	PPBB	9-1/2"	6-3/8"	6		
			Perma (Round)	D4.08109.559 SS WB29	D4.08108.559 SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	6		
675	Perma (Flat)	D4.08109.459 SS WB29	D4.08108.459 SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	6				
	Retort Hi-Temp	D4.08109.839 RW SS WB29	D4.08108.839 RW SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	6-1/4				
900	Polyolefin	D4.08109.839 SS WB29	D4.08108.839 SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	6-1/4				
	Polyurethane Hi-TECH	D4.08109.929 SS WB29	D4.08108.929 SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	7				
1000	White Nylon	D4.08109.539 WN SS WB29	D4.08108.539 WN SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	8				
	Endura Solid Elastomer	D4.08109.839 EN SS WB29	D4.08108.839 EN SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	6-3/4				
1200	Thermo Hi-Temp	D4.08109.839 HT SS WB29	D4.08108.839 HT SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	7				
	Eagle Polyurethane	D4.08109.929 EG SS WB29	D4.08108.929 EG SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	7				
1200	Phenolic - High Temp	D4.08109.339 HT SS WB29	D4.08108.339 HT SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	8				
	Phenolic	D4.08109.339 SS WB29	D4.08108.339 SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	8				
1250	Maxim Nylon Glass Filled	D4.08109.539 SS WB29	D4.08108.539 SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	7				
	HD Nylon Glass Filled	D4.08109.839 DT SS WB29	D4.08108.839 DT SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	8				
1250	Hi-Temp Nylon Glass Filled	D4.08109.839 HTBLK SS WB29	D4.08108.839 HTBLK SS WB29	Delrin, Bronze, PPBB	9-1/2"	6-3/8"	7				
	K Solid Polyurethane*	D4.08109.935 KW SS	D4.08108.935 KW SS	Delrin, Bronze	9-1/2"	6-3/8"	6-1/2				
1250	Commander HD*	D4.08109.5PN SS	D4.08108.5PN SS	SS Prec. Ball Standard	9-1/2"	6-3/8"	10				

\*K Solid Polyurethane wheels standard with Pedestal Precision Ball Bearing (PPBB); Commander HD wheels standard with large Precision Ball Bearings.

**Bearing Options**

Wheels feature stainless steel roller bearings in above chart, unless otherwise noted. To order optional bearings, see information to right.



**Stainless Steel Roller Bearing**

Temperature Rating: 350°F  
The standard bearing option in all above models with **WB29** specification.  
High Temp wheel selections are automatically upgraded to stainless steel thrust and retaining washers.



**Delrin® Bearing**

Temperature Rating: 160°F (increases to 350°F continuous for high-temp wheel selections)  
To order, change 10th digit to "1" and remove WB29 from model number.  
(Example: D4.06109.921 SS)



**Stainless Steel Pedestal Precision Ball Bearing (PPBB)**

Temperature Rating: 250°F (increases to 480°F continuous for high-temp wheel selections)  
To order change 10th digit to "5" and remove WB29 from model number.  
(Example: D4.06109.925 SS).



**Bronze Bearing**

Temperature Rating: 525°F  
To order, change the 10th digit in model number to "4" and remove WB29 from model number.  
(Example: D4.06109.534 SS).

## Defender D4 Stainless Steel Series Components

### Swivel and Rigid Rigs



Wheel Dia.	Tread Width	*Load Capacity (lbs)	Mount Height	Swivel Caster Part #	Rigid Caster Part #
4"	2"	1250	5-5/8"	D4.04109SS	D4.04108SS
5"	2"	1250	6-1/2"	D4.05109SS	D4.05108SS
6"	2"	1250	7-1/2"	D4.06109SS	D4.06108SS
8"	2"	1250	9-1/2"	D4.08199SS	D4.08198SS



### Total Lock Rigs

Wheel Dia.	Tread Width	*Load Capacity (lbs)	Mount Height	Part #
4"	2"	1250	5-5/8"	D4.04149SS BRK4
5"	2"	1250	6-1/2"	D4.05149SS BRK4
6"	2"	1250	7-1/2"	D4.06149SS BRK4
8"	2"	1250	9-1/2"	D4.08149SS BRK4

### Brake Kits

All brake kits include axle, nut and necessary hardware to install on swivel or rigid rigs.

#### Top Lock (BRK7)



Model #	Description
DEFTBK4X2SS	4" models
DEFTBK5X2SS	5" models
DEFTBK6X2SS	6" models
DEFTBK8X2SS	8" models

#### Side Lock (BRK3)

Only works with roller bearing models. Fits all caster sizes.



Model #	Description
DEFCAMXX2SS	Comes with custom spanner bushing (roller bearing required)

### Swivel Locks

Choice of hand operated or foot operated swivel locks.

#### Hand Operated Swivel Locks



**SWVLOCKX2SS**  
For welded version, please consult factory.



#### Foot Operated Swivel Locks



05213.67

### Hardware (All hardware parts sold per piece, not sets)

#### Axles, nuts and bushings



**Stainless Steel Axle (Zerk)**  
1/2-13x3.75

**AXLEZRKEX2SS**



**Stainless Steel Solid Axle**  
1/2-13x3.75

**AXLESLDEX2SS**



**Stainless Steel Nut**  
1/2-13

**AXLENUTEX2SS**



**Stainless Steel Spanner Bushing**  
1/2 X 3/4 X 2-7/16

**SPANNEREX2SS**

#### Washers



**Stainless Steel Retaining Washer**  
**RETAINEREX2SS**



**Stainless Steel Thrust Washer**  
**THRUSTEX2SS**

#### Bearings



**Stainless Steel Roller Bearing**  
**Temperature Rating: 350°F**

3/4 I.D. (Use With Bushing For 1/2 I.D.)

**BRGCROLLEX2SS**



**Bronze Bearing**  
**Temperature Rating: 525°F**  
**BRGBRZEX2**



**Stainless Steel Pedestal Precision Ball Bearing**  
**Temperature Rating: 250°F**

**BRGPBALLEX2SS**



**High Temperature Stainless Steel Pedestal Precision Ball Bearing**  
**Temperature Rating: 480°F continuous**  
**BRGPBALLEX2SSHT**



**Flanged Delrin® Bearing**  
**Temperature Rating: 160°F**  
3/4 I.D. (Use With Spanner For 1/2 I.D.)  
**BRGDELRNEX2**



**Flanged High Temperature Nylon Bearing**  
**Temperature Rating: 350°F**  
3/4 I.D. (Use With Spanner For 1/2 I.D.)  
**BRGNYLONEX2HT**

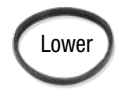
### Raceway Seals



Upper and lower seals available on swivel caster models. Seals are not available for total lock or swivel lock models. Temperature rating: 140°F.



Upper  
**51000.77**



Lower  
**51001.76**