# GDS GDSP SERIES



SMART SOLUTION FOR SHOCK ABSORPTION AND NOISE REDUCTION

# THE PRIDE OF TOP QUALITY.

#### **DESIGN**

An engineering response to a strategic question balancing form and function

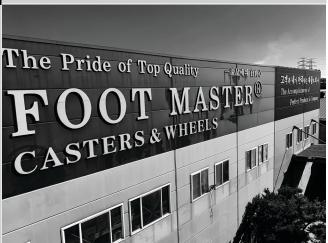


#### **MANUFACTURE**

Precision engineering with advanced technology reflects superb craftmanship

#### **SOLUTION**

The elimination of a problem to deliver successful outcomes and satisfaction



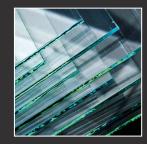
# FOOT MASTER® **SHOCK ABSORBING CASTERS**

Applications

#### **SHOCK SENSITIVE ENVIRONMENT**







Semi-Conductors | LCDs | Glass

#### **NOISE SENSITIVE ENVIRONMENT**







Automotive | Hotels | Restaurants

#### **EASIER HANDLING**



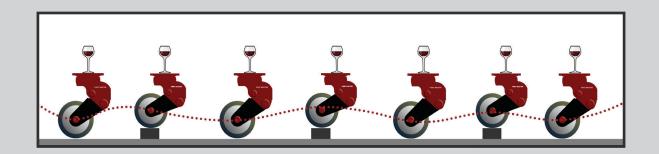




AGVs | Carts | Scissor Lifts

# FOOT MASTER® SHOCK ABSORBING CASTERS

The Evidence



FOOT MASTER Shock Absorbing Casters are the best solution for protecting sensitive objects, such as semi-conductors, glass and specialized equipment. In addition, they serve as excellent noise-reducing options in workshops, factories, offices, restaurants, clean rooms and production floors.

#### — THE ADVANTAGES—

# SUPERIOR SHOCK PROTECTION NOISE-REDUCING SOLUTION



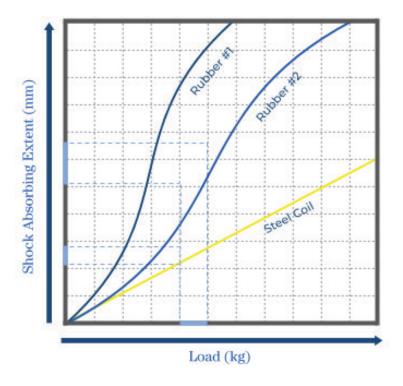






## It's not the heavy load that breaks you, it's the way you carry it.

- Lou Holtz



This graph shows the relationship of increasing the load relative to the steel coil spring's capabilities compared to a rubber cushion.

Rubber #1 and Rubber #2 represent the various types of specially designed cushions, which perform far superior with increasing loads compared to the steel coil.

#### **RUBBER VS. STEEL**

This graph reveals the unmatched performance of FOOT MASTER's specially designed rubber cushion.

#### STEEL COIL

Linear Deformation As Weight Increases = Noise + Wear & Tear

FOOT MASTER's rubber cushion is far superior to the steel coil spring, as it absorbs the additional weight more efficiently with a smaller, non-linear deformation.

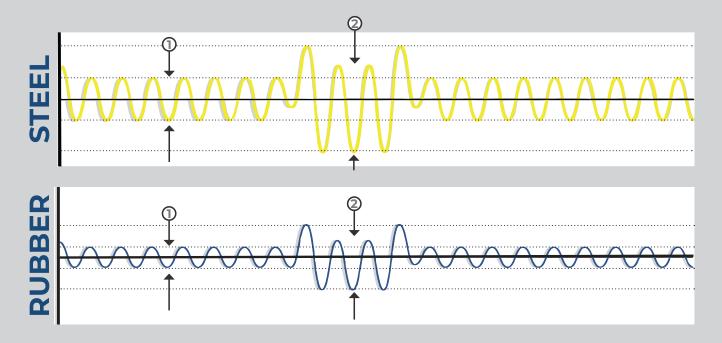
#### **RUBBER CUSHION**

Superior Life Span + Added Protection + Zero Maintenance

Bumps in the road? No problem!

# FOOT MASTER® SHOCK ABSORBING CASTERS

The Evidence



<sup>1</sup>Refers to the deviation over consistent ground.

<sup>2</sup>Refers to the deviation when caster hits a bump in the road.

#### **NOISE REDUCTION**

In this graph, FOOT MASTER<sup>®</sup> shock absorbing casters limit and potentially eliminate sound energy. The reduction is dramatic compared to steel coiled casters.

Bumps in the road are not a problem for FOOT MASTER® shock absorbing casters. In fact, they excel by generating fewer and narrower outliers (see graph above) because the specially designed rubber cushion absorbs the impact forces of the inconsistent ground.



#### **Materials & Specifications**

Top Plate: Pressed Steel Frame: Aluminum Spring: Special Rubber Finish: Powder Coating & Zinc

Galvanized

Capacity: 90 - 350 kg. Temperature: (-10°)~90°C

#### **Wheel Diameter Options**

75 mm (3") - 100 mm (4") 125 mm (5") - 130 mm (5-1/8") 150 mm (6") - 200 mm (8")



**RIG.** For the GDS, strength and flexibility are achieved by utilizing a multi-part rig. The aluminum frame is designed to support two pressed steel legs (aluminum legs on GDS-100 and GDS-125 models) designed to facilitate movement. With this configuration, the GDS is free to respond when encountering rough surfaces and abrupt transitions.





to maneuver the GDS. The upper raceway is a forged steel mounting plate with a hardened steel raceway sleeve. It is used to protect the aluminum frame from scoring and compression, leading to increased longevity. Mounting options include a threaded stem, grip ring stem and various top plates.

**LOWER BEARING RACEWAY.** Situated inside the aluminum frame, the hardened steel lower raceway is precisely machined to securely fasten the mounting plate and the upper raceway to the rig. While most casters simply press fit a rivet, FOOT MASTER uses a threaded kingpin tightened with the exact amount of torque to ensure consistency and durability.





**AXLE.** Numerous stages of meticulous machining transform high quality raw material into a perfectly balanced axle. The unique, integrated shaft design eliminates any tolerance variation that could occur during operation, improving the caster's rolling performance.

**RUBBER CUSHION.** The GDS displays unrivaled performance through advanced shock absorbing technology. A specially designed rubber cushion replaces traditional steel springs for superior protection, noise reduction and extended product life. Various durometer options are available to meet load and operational requirements.





**WHEEL.** Polyurethane wheels are bonded to an aluminum core using two ball bearings. Because this is cast polyurethane rather than injection molding, FOOT MASTER wheels have a much wider range of hardness, improved opposition to abrasion and enhanced resistance to most chemicals.

#### **SHOCK ABSORBING CASTERS**

GDS Series - Mounting Options & Plate Configurations





**SWIVEL** 



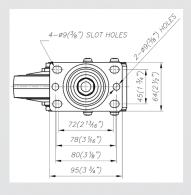


**RIGID** 

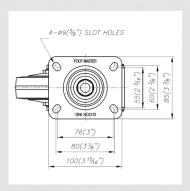




**BRAKE** 

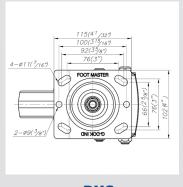


-PUS

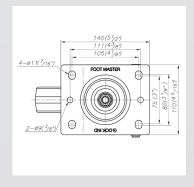


-PEU





-PUS



-PEU

AVAILABLE FOR: 130 150 200

#### **SHOCK ABSORBING CASTERS**

GDS Series - Wheel Types | Cushion | Options

#### WHEEL TYPE: LUD



- Cast Polyurethane (90A)
- **Aluminum Core**
- 2 Ball Bearings

#### WHEEL TYPE: HUD



- Cast Polyurethane (95A)
- **Aluminum Core**
- 2 Ball Bearings

#### SINGLE STAGE CUSHION

- 50°
- 65°
- **75**°



#### **OPTIONS**

- -WEU: Antistatic  $10^{8} \sim 10^{9} \,\Omega \,cm$
- -FRD: High Temperature Up to 250° C/480°F
- -FBL: **Black Color**



#### **Materials & Specifications**

Top plate: Pressed steel Frame: Strong welded frame Spring: Special rubber Finish: Zinc plated Capacity: 360 - 450 kg Temperature: (-10°)~90°C

Manual or Tow

Speed: Up to 20 km/h

#### **Wheel Diameter Options**

150 mm (6") - 200mm (8")



**RIG.** The GDSP possesses a strong welded frame to endure challenging environments and tough usage. It is fully capable as a towable caster up to 20 km/h under power. This 2-part rig is firm and stable under heavy loads, while lending the confident assurance of maintaining ground contact while absorbing vibration.





**BOLTED AXLE.** A super strong bolt axle structure employs top hat spacers between the wheel and legs. To hold the wheel tight and to prevent poor performance, a nylon locking nut is secured to the axle.

**BEARING SPACER.** To prolong the life of the wheel bearings, GDSP calls on an aluminum spacer to ensure there is no play or rattling. Installed on the bolted axle between the two bearings, it enables the wheel to rotate smoothly, to drastically reduce noise and maintain precision performance.





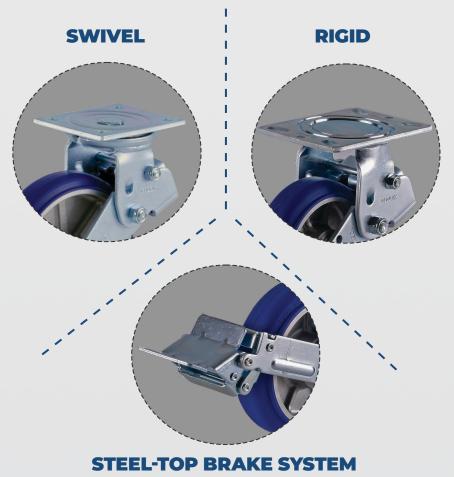
**WHEEL.** Blue polyurethane wheels are bonded to an aluminum core utilizing two ball bearings. The tread is tapered to skillfully handle curves with a larger wheel radius near the flange.

**RUBBER CUSHION.** Fine shock absorption functionality is achieved through a specially designed, dual stage rubber cushion with unique features. This unique design eliminates the loud noice typical of moving an empty cart, while offering superior protection when loaded with items such as semiconductors, specialized equipment and other sensitive objects. GDSP is the reliable solution to run on a wide range of applications.

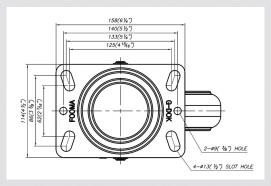


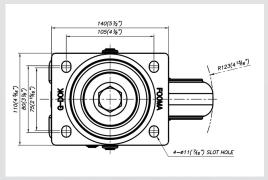
#### **SHOCK ABSORBING CASTERS**

GDSP Series - Mounting Options & Plate Configurations



Available on Swivel and Rigid





AVAILABLE FOR:
150
200

-PUS -PEU

#### **SHOCK ABSORBING CASTERS**

GDSP Series - Wheel Type | Cushion | Options

#### **WHEEL TYPE: MUD**

- · Cast Polyurethane (95A)
- · Aluminum Core
- · 2 Ball Bearings



#### **DUAL STAGE CUSHION**

- 50°
- · 65°
- 75°



\*represents shore hardness of rubber cushion

#### **OPTIONS**

- -2DL: 150 ~ 200
- -2DL:
  2 Directional Lock

  -4DL:
  4 Directional Lock • -4DL: 150 ~ 200
- -WEU: Antistatic  $10^{8} \sim 10^{9} \, \Omega \text{cm}$

#### **SHOCK ABSORBING CASTERS**

#### Product Numbers









SWIVEL	BRAKE	RIGID	BRAKE	WHEEL	RUBBER	[mm]	[mm]	[Kg]	[mm]	[mm]	6 0 [mm]	[mm]	[mm]
GDS-100-ASF	GDS-100-BSF	GDS-100-ARF	GDS-100-BRF	LUD	65°	100	30	100	160-20	45~53	73x73	58x58	7
					75°								
GDS-125-ASF	GDS-125-BSF	GDS-125-ARF	GDS-125-BRF	LUD	65°	125	30	100	187-20	45~54	73x73	58x58	7
					75°								
GDS-130-ASF	GDS-130-BSF	GDS-130-ARF	GDS-130-BRF	HUD	65°	130	40	350	200-30	36~50	95x95	70x70	11
					75°								
GDS-150-ASF	GDS-150-BSF	GDS-150-ARF	GDS-150-BRF	HUD	65°	150	40	350	230-30	36~50	95x95		11
					75°							70x70	
GDS-200-ASF	GDS-200-BSF	GDS-200-ARF	GDS-200-BRF	HUD	65°	200		750	000 75	FF FG	05.05	50.50	
					75°	200	40	350	270-35	55~76	95x95	70x70	11









SWIVEL	BRAKE	RIGID	BRAKE	WHEEL	RUBBER	[mm]	[mm]	[Kg]	[mm]			[mm]
GDS-100-ASS	-100-ASS   GDS-100-BSS   GDS-100-ARS   GDS-100-BRS   LUD	65°	100	30	100	160-20	45~53	M12x1.75P	18			
				1	75°							
GDS-125-ASS	GDS-125-BSS	GDS-125-ARS	GDS-125-BRS	LUD	65°	125	30	100	187-20	45~54	M12x1.75P	10
					75°							18
000 170 400	GDS-130-BSS	GDS-130-ARS	GDS-130-BRS	HUD	65°	130	40	350	200-30	36~50	M16x2.0P	24
GDS-130-ASS					750							24
GDS-150-ASS	GDS-150-BSS	GDS-150-ARS	GDS-150-BRS	HUD	65°	150	40	350	230-30	36~50	1.476.0.00	27
					75°						M16x2.0P	24
GDS-200-ASS	000 000 000	GDS-200-ARS	GDS-200-BRS	HUD	65°	200		750	000 75		1415 0.00	27
	GDS-200-BSS				75°	200	40	350	270-35	55~76	M16x2.0P	24









SWIVEL	BRAKE	RIGID	BRAKE	WHEEL	RUBBER	[mm]	[mm]	[Kg]	[mm]	[mm]	6 0 [mm]	[mm]	[mm]
GDSP-150-ASF	GDSP-150-BSF	GDSP-150-ARF	GDSP-150-BRF	MUD	65°	150	48	360	202-14	48~53	350 337	133x86	- 13
GDSP-200-ASF	GDSP-200-BSF	GDSP-200-ARF	GDSP-200-BRF	MUD	75°	200	48	450	253-15	65~75	158x114	125x62	
GDSP-150-ASF-PEU	GDSP-150-BSF-PEU	GDSP-150-ARF-PEU	GDSP-150-BRF-PEU	MUD	65°	150	48	360	202-14	48~53		105x80	
GDSP-200-ASF-PEU	GDSP-200-BSF-PEU	GDSP-200-ARF-PEU	GDSP-200-BRF-PEU	MUD	75°	200	48	450	253-15	65~75	140x110	105x75	

#### **FAMILY OF TOP QUALITY CASTERS**



**AGV CASTERS** 



**MEDIUM DUTY CASTERS** 



LEVELING CASTERS



SHOCK ABSORBING CASTERS



**COMPACT CASTERS** 



**HEAVY DUTY CASTERS** 

FOOT MASTER designs, engineers and manufactures casters and wheels that address industry specific performance gaps.

From our global headquarters in South Korea, engineers are striving to develop the best caster products in the world. This pursuit of perfection starts with an intense focus to serve customers and solve problems.

#### **G-DOK INDUSTRIES**

### FOOT MASTER® Casters & Wheels

FOOT MASTER Global Headquarters 27-50 Bugok Industrial Complex Road 4 Songak-eup, Dangjin-si, Chungcheongnam-do 31721 SOUTH KOREA +82-41-357-8390

FOOT MASTER North American Office 1165 Electric Avenue Wayland, MI 49348 UNITED STATES 866-362-3226

info@footmastercasters.com