



InterMetro Industries Corporation  
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## Stem Caster Technical Data

Stem Caster Technical Data T11.20

Decorative Stem Casters						
CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
HDC3B	2-3/8" (60mm)	NYLON	SWIVEL	-20°F-120°F -29°C-49°C	100 LBS. (45.3 kg.)	TWIN WHEEL-BLACK NYLON HOUSING 3/8 (9mm)-16 UNC THREADED STEM.
HDC3BB	2-3/8" (60mm)	NYLON	SWIVEL/B RAKE	-20°F-120°F -29°C-49°C	100 LBS. (45.3 kg.)	TWIN WHEEL-BLACK NYLON HOUSING 3/8 (9mm)-16 UNC THREADED STEM.
HDC5B	4" (102mm)	NYLON	SWIVEL	-20°F-120°F -29°C-49°C	225 LBS. (102 kg.)	TWIN WHEEL-BLACK NYLON HOUSING ½ (12mm)-13 UNC THREADED STEM. (INCLUDES SPECIAL CASTING).
HDC5BB	4" (102mm)	NYLON	SWIVEL/B RAKE	-20°F-120°F -29°C-49°C	225 LBS. (102 kg.)	TWIN WHEEL-BLACK NYLON HOUSING ½ (12mm)-13 UNC THREADED STEM. (INCLUDES SPECIAL CASTING).

Hi-Modulus Rubber Stem Casters						
CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
5MDA	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC RUBBER DONUT TREAD POLYOLEFIN HUB	SWIVEL	-40°F-180°F -40°C-82°C	250 lbs. (113.4 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL AND AXLE. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (32mm) TREAD WIDTH. .845" (21mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 60-70 SHORE A
5MDBA	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC RUBBER DONUT TREAD POLYOLEFIN HUB	SWIVEL/B RAKE	-40°F-180°F -40°C-82°C	250 lbs. (113.4 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL AND AXLE. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (32mm) TREAD WIDTH. .845" (21mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 60-70 SHORE A
5MDRA	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC RUBBER DONUT TREAD POLYOLEFIN HUB	RIGID	-40°F-180°F -40°C-82°C	250 lbs. (113.4 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING AXLE. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (32mm) TREAD WIDTH. .845" (21mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 60-70 SHORE A

Note: 5MDXA, 5MDBXA, 5MDRXA casters (MetroMax & MetroMax Q) are the same as above except have MetroMax bumpers.

TIM CAMPBELL 800-400-7500

Solid Soft Rubber Stem Casters						
CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
4LD	4" (102mm)	SOLID SOFT BLACK RUBBER DONUT TREAD	SWIVEL	-30°F-160°F -34°C-71°C	125 lbs.. (56.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL. CELCON AXLE BEARINGS. 4-11/16" (119mm) LOAD HGT. 3" (76.2mm) SWIVEL RADIUS. 15/16" (23.8mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. NICKEL SIDE PLATES. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 70-80 SHORE A
5LD	5" (127mm)	SOLID SOFT BLACK RUBBER DONUT TREAD	SWIVEL	-30°F-160°F -34°C-71°C	125 lbs.. (56.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL. CELCON AXLE BEARINGS. 5-11/16" (144.4mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 15/16" (23.8mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. NICKEL SIDE PLATES. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 70-80 SHORE A.
5M	5" (127mm)	SOLID SOFT BLACK RUBBER FLAT TREAD	SWIVEL	-30°F-160°F -34°C-71°C	200 lbs. (90.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL ZINC PLATED HORN. BALL BEARING SWIVEL. SINTERED IRON AXLE BEARINGS. 6-3/32" (154.8mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-9/32" (32.5mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 70-80 SHORE A.
5MB	5" (127mm)	SOLID SOFT BLACK RUBBER FLAT TREAD	SWIVEL/B RAKE	-30°F-160°F -34°C-71°C	200 lbs. (90.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL ZINC PLATED HORN. BALL BEARING SWIVEL. SINTERED IRON AXLE BEARINGS. 6-3/32" (154.8mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-9/32" (32.5mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 70-80 SHORE A.
5MR	5" (127mm)	SOLID SOFT BLACK RUBBER FLAT TREAD	RIGID	-30°F-160°F -34°C-71°C	200 lbs. (90.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL ZINC PLATED HORN. SINTERED IRON AXLE BEARINGS. 6-3/32" (154.8mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-9/32" (32.5mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DONUT BUMPER. DUROMETER: 70-80 SHORE A .
HS5M	5" (127mm)	SOLID SOFT BLACK RUBBER FLAT TREAD	SWIVEL	-30°F-160°F -34°C-71°C	125 lbs.. (56.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL ZINC PLATED HORN. BALL BEARING SWIVEL. DELRIN AXLE BEARINGS. 5-5/8" (142.9mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 15/16" (23.8mm) TREAD WIDTH. NO GREASE FITTINGS. 3/4" (19mm) PIERCED OCTAGON STEM. DUROMETER: 70-80 SHORE A.
HS5MB	5" (127mm)	SOLID SOFT BLACK RUBBER FLAT TREAD	SWIVEL/B RAKE	-30°F-160°F -34°C-71°C	125 lbs.. (56.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL ZINC PLATED HORN. BALL BEARING SWIVEL. DELRIN AXLE BEARINGS. 5-5/8" (142.9mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 15/16" (23.8mm) TREAD WIDTH. NO GREASE FITTINGS. 3/4" (19mm) PIERCED OCTAGON STEM. DUROMETER: 70-80 SHORE A.

Note: 5MX, 5MBX, 5MRX casters (MetroMax & MetroMax Q) are the same as above except have MetroMax bumpers.

### Polyurethane Stem Casters

CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
5MP	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL	-30°F-180°F -34°C-82°C	300 lbs. (136.1 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL AND AXLE. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DONUT BUMPER. DUROMETER: 95 SHORE A
5MPB	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL/ BRAKE	-30°F-180°F -34°C-82°C	300 lbs. (136.1 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL AND AXLE. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DONUT BUMPER. DUROMETER: 95 SHORE A
5MPR	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	RIGID	-30°F-180°F -34°C-82°C	300 lbs. (136.1 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING AXLE. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A
6MP	6" (152mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL	-30°F-180°F -34°C-82°C	400 lbs. (204.4 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL & AXLE 7-1/16" (179mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/2" (38.1mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A
6MPB	6" (152mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL/ BRAKE	-30°F-180°F -34°C-82°C	400 lbs. (204.4 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL & AXLE. 7-1/16" (179mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/2" (38.1mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A
6MPR	6" (152mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	RIGID	-30°F-180°F -34°C-82°C	400 lbs. (204.4 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING AXLE. 7-1/16" (179mm) LOAD HGT. 1-1/2" (38.1mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A

Note: 5MPX, 5MPBX, 5MPRX casters (MetroMax & MetroMax Q) are the same as above except have MetroMax bumpers

### Corrosion Resistant Polymer Stem Casters

CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
5PC (NON-CARTWASH)	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL	-20°F-120°F -29°C-49°C	300 lbs. (136.1 kg.)	NYLON HORN WITH .845" (21.4mm) DIA. NICKEL PLATED COLD ROLLED STEEL STEM & S/S C-RING. CRS BALL BEARING SWIVEL. DELRIN AXLE BEARING WITH S/S AXLE BOLT, NUT, AND SPACER. 6-3/8" (162mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A
5PCB (NON-CARTWASH)	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL/B RAKE	-20°F-120°F -29°C-49°C	300 lbs. (136.1 kg.)	NYLON HORN WITH .845" (21.4mm) DIA. NICKEL PLATED COLD ROLLED STEEL STEM & S/S C-RING. CRS BALL BEARING SWIVEL. DELRIN AXLE BEARING WITH S/S AXLE BOLT, NUT, AND SPACER. 6-3/8" (162mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A
5PCR (NON-CARTWASH)	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	RIGID	-20°F-120°F -29°C-49°C	300 lbs. (136.1 kg.)	NYLON HORN WITH .845" (21.4mm) DIA. NICKEL PLATED COLD ROLLED STEEL STEM & S/S C-RING. DELRIN AXLE BEARING WITH S/S AXLE BOLT, NUT, AND SPACER. 6-3/8" (162mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. NO GREASE FITTINGS. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A

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### Cart-Washable Stem Casters

CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
5MPGSA	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL	-30°F-180°F -34°C-82°C	300 lbs. (136.1 kg.)	STAINLESS HORN WITH .845" (21.4mm) DIA. S/STEM & S/S C-RING. S/S SWIVEL & AXLE BALL BEARING. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. S/S GREASE FITTING IN HORN. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A
5MPBGSA	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL/B RAKE	-30°F-180°F -34°C-82°C	300 lbs. (136.1 kg.)	STAINLESS HORN WITH .845" (21.4mm) DIA. S/STEM & S/S C-RING. S/S SWIVEL & AXLE BALL BEARING. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. S/S GREASE FITTING IN HORN. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A
5MPRGSA	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	RIGID	-30°F-180°F -34°C-82°C	300 lbs. (136.1 kg.)	STAINLESS HORN WITH .845" (21.4mm) DIA. S/STEM & S/S C-RING. S/S AXLE BALL BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. S/S GREASE FITTING IN HORN. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 95 SHORE A
5MDGSA	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC RUBBER DONUT TREAD POLYOLEFIN HUB	SWIVEL	-45°F-180°F -43°C-82°C	250 lbs. (68.04 kg.)	STAINLESS HORN WITH .845" (21.4mm) DIA. S/S STEM & S/S C-RING. S/S SWIVEL & AXLE BALL BEARING. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. S/S GREASE FITTING IN HORN. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 60-70 SHORE A.
5MDBGSA	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC RUBBER DONUT TREAD POLYOLEFIN HUB	SWIVEL/B RAKE	-45°F-180°F -43°C-82°C	250 lbs. (68.04 kg.)	STAINLESS HORN WITH .845" (21.4mm) DIA. S/S STEM & S/S C-RING. S/S SWIVEL & AXLE BALL BEARING. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. S/S GREASE FITTING IN HORN. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 60-70 SHORE A.
5MDRGSA	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC RUBBER DONUT TREAD POLYOLEFIN HUB	RIGID	-45°F-180°F -43°C-82°C	250 lbs. (68.04 kg.)	STAINLESS HORN WITH .845" (21.4mm) DIA. S/S STEM & S/S C-RING. S/S AXLE BALL BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. S/S GREASE FITTING IN HORN. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 60-70 SHORE A.

### Clean Room Stem Casters

5MFA	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC RUBBER FLAT TREAD POLYOLEFIN HUB	SWIVEL	-45°F-180°F -43°C-82°C	300 lbs. (136.1 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL. DELRIN AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DONUT BUMPER. DUROMETER: 60-70 SHORE A
5MFBA	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC RUBBER FLAT TREAD POLYOLEFIN HUB	SWIVEL/ BRAKE	-45°F-180°F -43°C-82°C	300 lbs. (136.1 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED HORN. BALL BEARING SWIVEL. DELRIN AXLE BEARING. 1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. .845" (21.4mm) DIA. STEM. NO GREASE FITTINGS. 3-1/2" (89mm) DONUT BUMPER. DUROMETER: 60-70 SHORE A

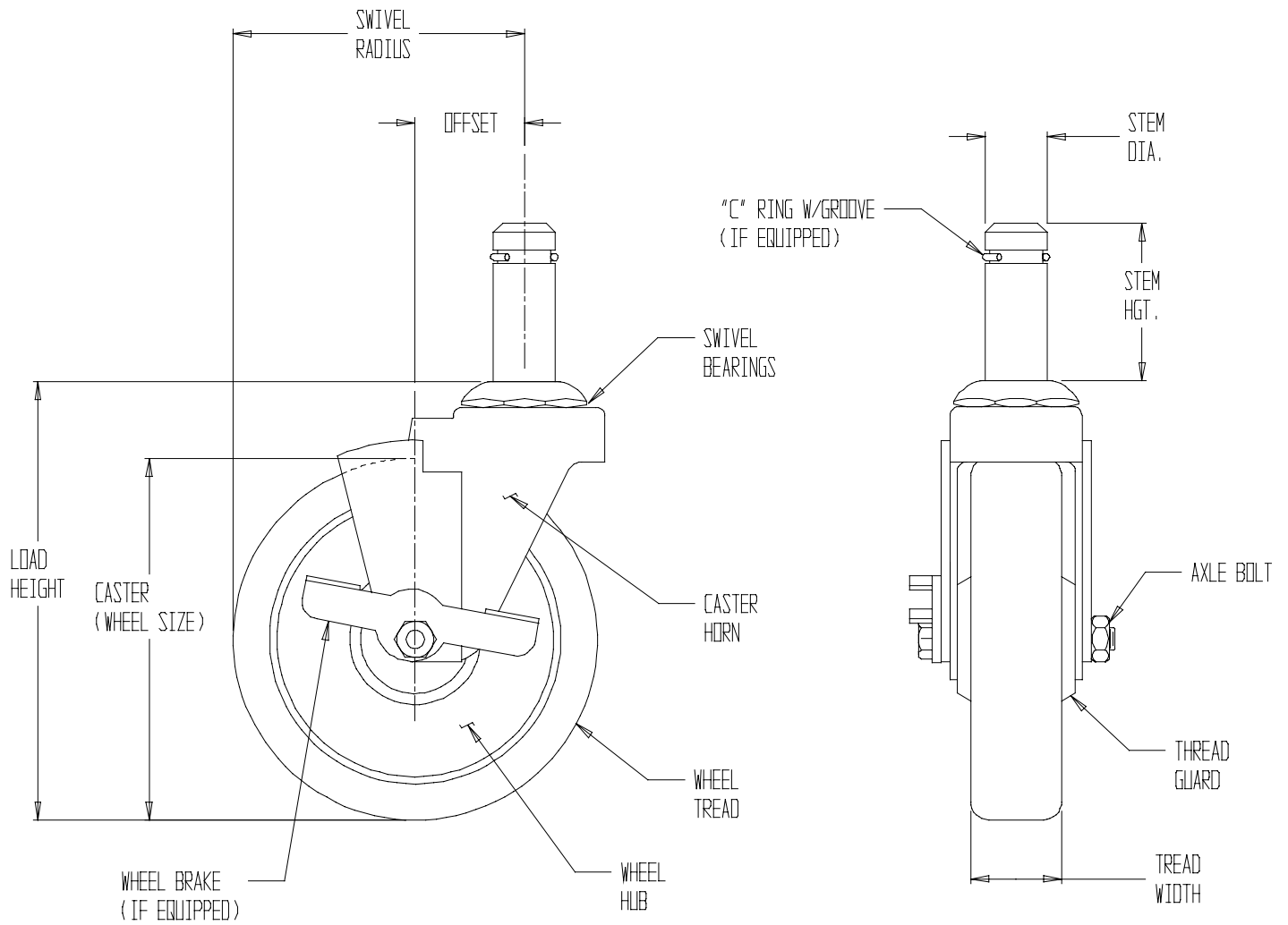
Conductive Stem Casters						
CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
5MC (Carbon Impregnated Wheel)	5" (127mm)	SOLID BLACK CONDUCTIVE RUBBER	SWIVEL	-30°F-160°F -34°C-71.°C	200 lbs. (90.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) ZINC PLATED STEM. BALL BEARING SWIVEL-SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. NO GRASE FITTING. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 70-80 SHORE A. RED DOT ON WHEEL INDICATES CONDUCTIVE CASTER (5MC,5MBC, 5MRC).
5MBC Carbon Impregnated Wheel)	5" (127mm)	SOLID BLACK CONDUCTIVE RUBBER	SWIVEL/B RAKE	-30°F-160°F -34°C-71.°C	200 lbs. (90.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) ZINC PLATED STEM. BALL BEARING SWIVEL-SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 4" (102mm) SWIVEL RADIUS. 1-1/4" (31.8mm) TREAD WIDTH. NO GRASE FITTING. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 70-80 SHORE A
5MRC Carbon Impregnated Wheel)	5" (127mm)	SOLID BLACK CONDUCTIVE RUBBER	RIGID	-30°F-160°F -34°C-71.°C	200 lbs. (90.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) ZINC PLATED STEM. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. NO GRASE FITTING. 3-1/2" (89mm) DIA. DONUT BUMPER. DUROMETER: 70-80 SHORE A
Q5MC (MetroMax Q Carbon Impregnated Wheel)	5" (127mm)	SOLID BLACK CONDUCTIVE RUBBER	SWIVEL	-30°F-160°F -34°C-71.°C	200 lbs. (90.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) ZINC PLATED STEM. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. NO GRASE FITTING. METROMAX BUMPER DUROMETER: 70-80 SHORE A. ESD SYMBOL ON HORN INDICATES CONDUCTIVE CASTER (Q5MESD,Q5MBESD).
Q5MBC (MetroMax Q Carbon Impregnated Wheel)	5" (127mm)	SOLID BLACK CONDUCTIVE RUBBER	SWIVEL/B RAKE	-30°F-160°F -34°C-71.°C	200 lbs. (90.7 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) ZINC PLATED STEM. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. NO GRASE FITTING. METROMAX BUMPER DUROMETER: 70-80 SHORE A
Q5MESD (MetroMax Q Non-Marking)	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC CONDUCTIVE RUBBER FLAT TREAD W/ BLACK POLYOLEFIN CONDUCTIVE HUB	SWIVEL	-45°F-180°F -34°C-71.°C	325 lbs. (147.4 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) NICKEL PLATED STEM. BALL BEARING SWIVEL. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. NO GRASE FITTING. METROMAX BUMPER. DUROMETER: 70-80 SHORE A
Q5MBESD (MetroMax Q Non-Marking)	5" (127mm)	ADVANTAGE HI-MODULUS GRAY THERMOPLASTIC CONDUCTIVE RUBBER FLAT TREAD W/ BLACK POLYOLEFIN CONDUCTIVE HUB	SWIVEL/B RAKE	-45°F-180°F -34°C-71.°C	325 lbs. (147.4 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) NICKEL PLATED STEM. BALL BEARING SWIVEL. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. NO GRASE FITTING. METROMAX BUMPER. TOE OPERATED BRAKE. DUROMETER: 70-80 SHORE A

TIM CAMPBELL 800-400-7500

Top-Track Stem Casters						
CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
5MPOR (SES Top-Track) Non-Cart Washable	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	RIGID	-30°F-180°F -34°C-82°C	300 lbs. (136.1 kg.)	SPECIAL NICKEL PLATED COLD ROLLED STEEL HORN WITH CUT-BACK FORK - .845" (21.4mm) DIA. CRS STEM & C-RING. BALL BEARING AXLE. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. GREASE FITTING IN AXLE. DUROMETER: 95 SHORE A
5MOOR (MetroMax Top-Track) Non-Cart Washable	5" (127mm)	SOLID POLYOLEFIN WHEEL – FLAT TREAD	RIGID	-20°F-180°F -29°C-82°C	300 lbs. (136.1 kg.)	SPECIAL NICKEL PLATED COLD ROLLED STEEL HORN WITH CUT-BACK FORK - .845" (21.4mm) DIA. CRS STEM & C-RING. BALL BEARING AXLE. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. GREASE FITTING IN AXLE. DUROMETER: 60-70 SHORE D
5MPORSA (SES Top-Track) Cart-Washable	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	RIGID	-30°F-180°F -34°C-82°C	300 lbs. (136.1 kg.)	SPECIAL STAINLESS HORN WITH CUT-BACK FORK - .845" (21.4mm) DIA. S/S STEM & S/S C-RING. S/S AXLE BALL BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. S/S GREASE FITTING IN AXLE. DUROMETER: 60-70 SHORE D
5MOORSA (MetroMax Top-Track) Cart Washable	5" (127mm)	SOLID POLYOLEFIN WHEEL – FLAT TREAD	RIGID	-20°F-180°F -29°C-82°C	300 lbs. (136.1 kg.)	SPECIAL STAINLESS HORN WITH CUT-BACK FORK - .845" (21.4mm) DIA. S/S STEM & S/S C-RING. S/S AXLE BALL BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/4" (31.8mm) TREAD WIDTH. S/S GREASE FITTING IN AXLE. DUROMETER: 60-70 SHORE D

Misc. & Hi-Temp Phenolic Stem Casters						
CATALOG NO.	WHEEL DIA.	WHEEL CONSTRUCTION	TYPE	CONT. OPER. TEMP.	LOAD RATING	NOTES
C02-236	5" (127mm)	HI-TEMP PHENOLIC FLAT TREAD	SWIVEL	-45°F-475°F -42°C-246°C	300 lbs. (136.1 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) NICKEL PLATED STEM. BALL BEARING SWIVEL. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/2" (38.1mm) TREAD WIDTH. NO GREASE FITTING. NO DONUT BUMPER. DUROMETER: 80-90 SHORE D
C02-237	5" (127mm)	HI-TEMP PHENOLIC FLAT TREAD	SWIVEL/ BRAKE	-45°F-475°F -42°C-246°C	300 lbs. (136.1 kg.)	HEAVY GAUGE COLD ROLLED STEEL NICKEL PLATED FORK & .845" (21.4mm) NICKEL PLATED STEM. BALL BEARING SWIVEL. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/2" (38.1mm) TREAD WIDTH. NO GREASE FITTING. NO DONUT BUMPER. DUROMETER: 80-90 SHORE D
QC02-157 <b>CUSTOM ITEM</b>	5" (127mm)	HI-TEMP PHENOLIC FLAT TREAD	SWIVEL	-45°F-475°F -42°C-246°C	300 lbs. (136.1 kg.)	STAINLESS STEEL FORK & .845" (21.4mm) STAINLESS STEM. BALL BEARING SWIVEL. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/2" (38.1mm) TREAD WIDTH. GREASE FITTING IN HORN AND AXLE. NO DONUT BUMPER. DUROMETER: 80-90 SHORE D
QC02-157A <b>CUSTOM ITEM</b>	5" (127mm)	HI-TEMP PHENOLIC FLAT TREAD	SWIVEL/ BRAKE	-45°F-475°F -42°C-246°C	300 lbs. (136.1 kg.)	STAINLESS STEEL FORK & .845" (21.4mm) STAINLESS STEM. BALL BEARING SWIVEL. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/2" (38.1mm) TREAD WIDTH. GREASE FITTING IN HORN AND AXLE. NO DONUT BUMPER. DUROMETER: 80-90 SHORE D
QC02-157B <b>CUSTOM ITEM</b>	5" (127mm)	HI-TEMP PHENOLIC FLAT TREAD	RIGID	-45°F-475°F -42°C-246°C	300 lbs. (136.1 kg.)	STAINLESS STEEL FORK & .845" (21.4mm) STAINLESS STEM. SINTERED IRON AXLE BEARING. 6-1/16" (154mm) LOAD HGT. 1-1/2" (38.1mm) TREAD WIDTH. GREASE FITTING IN AXLE. NO DONUT BUMPER. DUROMETER: 80-90 SHORE D
5HHP (H.D. SES)	5" (127mm)	POLYURETHANE FLAT TREAD POLYETHYLENE HUB	SWIVEL	-45°F-475°F -42°C-246°C	400 lbs. (181.1 kg.)	HEAVY GAUGE COLD ROLLED STEEL ZINC PLATED FORK & 1-31/16" (37.7mm) DIA. STEM WITH 2 RINGS. BALL BEARING SWIVEL. AXLE ROLLER BEARINGS. 6-1/16" (154mm) LOAD HGT. 1-1/2" (38.1mm) TREAD WIDTH. 4" (102mm) SWIVEL RADIUS. 5-1/2" ( )

TIM CAMPBELL 800-400-7500



TYPICAL STEM CASTER

## **Caster Terminology**

**Caster Size** – Same as Wheel Diameter

**Load Height** – Vertical distance from top plate to the bottom of the wheel.

**Offset** – Horizontal distance between the centerline of the swivel kingpin and the centerline of the axle.

**Raceway** – Surface on which bearing rollers or balls move.

**Spanner Bushing** – The fixed sleeve in which the axle runs.

**Swivel Radius** – Horizontal distance between the centerline of the swivel kingpin and the outside edge of the wheel.

**Thrust Washer** – The washer between the wheel hub and the inside of the caster horn leg.

**Tread Width (Face)** – Width of the wheel tread.

**Thread Guard** – Cover over the axle bolt and bearing raceway which helps to prevent thread and debris from wrapping around the axle bolt. Also serves as a dust cap to prevent dust and dirt from entering the axle bearing and raceway.

**Durometer (Shore Hardness)** – A measure of the hardness of rubber and other tread materials on the Shore A or D scale. Generally, the higher the Durometer, the harder (or less resilient) the wheel tread material is.

**Rollability** – The ease with which a wheel or caster can be rolled. Rollability is affected by wheel size, type of tread, and bearings. The larger the wheel, the easier it is to roll. A hard narrow (donut) tread rolls easier than a flat soft tread on a smooth floor. Soft treads protect floors and roll over obstructions more easily.

### **Metro uses three different types of stem casters:**

**Style A:** (5M, 5MP etc.) A round stem is supplied with a spring steel ring which when inserted, will lock into the inside of the post

**Style B:** (HS5M) Has an octagonal stem which is fastened by three bolts to the inside flange of the chassis or to an angle. When used with RT racks, the stem is inserted into the tubular frame of the rack and fastened into place with the same bolts that hold the spreader bars in place.

**Style C:** (L3RBLB, HDC3B) A threaded stem (3/8" or 1/2" dia.) is screwed into the threaded insert in the bottom of a post.

### **Types Of Wheel Bearings**

**Self Lubricating Bearings** - usually a porous metal bushing permanently impregnated with oil (sintered iron), or an impregnated Dupont (Delrin) plastic bushing. Delrin bearings are suitable for corrosive environments (steam cleaning). Both bearings are designed for light load application.

**Ball Bearings** - Used when maximum rollability is required. Designed for heavier load applications than self-lube bearings.

**Roller Bearings** – Used when greater load capabilities and rollability are required.



## Caster Wheel Materials

**Solid Soft Rubber (5M, 5LD, HS5M)** – a resilient rubber offering maximum floor protection quiet operation at low cost. It will not withstand heavy loads or exposure to grease and oil. Rollability is fair, and soft rubber will take on a permanently set flat spot if left loaded in one position for days at a time.

**Neoprene** – A type of resilient rubber able to withstand most commonly encountered greases, oils, and alkalis. It offers good rollability and generally good operating characteristics for many applications. May present temperature limitations for some applications.

**Polyurethane (5MP, 5MPB)** – A synthetic elastomer with significant resistance to temperature, shock, fuels, oxidation, detergents, and oils. It offers long life with the wear resistance of hard rubber and the resilience of soft rubber. Polyurethane wheels are non-marking and quiet in operation.

**Hi-Temp Phenolic** – A compression molded thermoset resin and macerated canvas wheel which is able to withstand temperatures up to 475° F (246° C.) Phenolic wheels offer greater load bearing capacity, ease of rollability, and better resistance to oils, fats, and chemicals. Phenolic wheels, however, are more noisy in operation, and more susceptible to wear, chipping, and gouging.

**Solid Polyolefin (5MOOR, 5MOORSA)** – A lightweight, hard, non-marking, impact resistant, and easy rolling wheel made from thermoplastic resin. Polyolefin wheels offer good resistance to oils, grease, solvents, acids, and other chemicals. Polyolefin wheels, however, tend to be noisier in operation than softer wheel materials.

**Hi-Modulus Rubber (5MDA Advantage)** – Special modulus thermoplastic rubber which offers superior rollability and maneuverability. It carries large loads while offering shock-absorbing protection to the equipment. Advantage wheels are virtually non-marking, quiet, and will withstand all common cleaners, solvents, acids, oils, and chemicals, and frequent cart washings.

<b>Caster Application - Quick Guide*</b>						
Tread Material	Maximum Load	Rollability	Grease/Oil Resistance	Floor Protection	Quite in Use	Continuous Temp. Operation
Soft Solid Rubber	200 lbs. (90.7 kg.)	Low	Low	High	Yes	-30°F-160°F -34°C-71°C
Neoprene	225 lbs. (102 kg.)	Medium	High	High	Yes	-30°F-180°F -34°C-82°C
Polyurethane	400 lbs. (181 kg.)	High	High	High	No	-30°F-180°F -34°C-82°C
Hi-Temp Phenolic	300 lbs. (136 kg.)	High	High	Medium	No	-50°F-475°F -46°C-246°C
Solid Polyolefin	300 lbs. (136 kg.)	High	High	Low	No	-30°F-180°F -34°C-82°C
Hi-Modulus Rubber	250 lbs. (113 kg.)	High	High	High	Yes	-40°F-180°F -40°C-82°C

## General Rules of Caster Application

- The total weight of the equipment and its load should never exceed 3 times the caster load rating.
  - Given the same wheel material, the larger the wheel diameter, the greater the load capacity, and the better the rollability.
  - Stem casters generally have less load carrying capacity and take less abuse than plate casters.
  - A minimum of a 5" (127mm) wheel should be used when floor surfaces are rough, or when door or elevator thresh holds are present.
  - Roller bearings and ball bearings have greater load carrying capacity than engineered plastic bearings or sintered iron bearings.
  - **Under heavy loads**, harder tread materials will roll and swivel the easiest, and traverse uneven floors and obstacles the best. **Under light loads**, soft tread materials offer advantages on uneven floors, while maintaining acceptable levels of rolling and pivoting resistance. Additionally, harder tread materials perform better on soft or smooth floors, and soft treads roll better on hard or rough floors, including most outdoor surfaces.
  - For a given material, wheels with wider flat-face treads will carry the greatest load and last longer. Wider, flat-face treads also give you an advantage in overcoming rough surfaces. Narrow (donut) shaped wheel treads however; will swivel easier, especially on carpets.
  - Rubber, especially hi-modulus rubber, will give the quietest movement and maximum floor protection, while phenolic and polyolefin is hardest on floors. Polyurethane is frequently an effective compromise, giving moderate floor protection with greater load capacity than rubber.
- Never** use a soft rubber caster wheel in a corrosive environment or a cart wash application