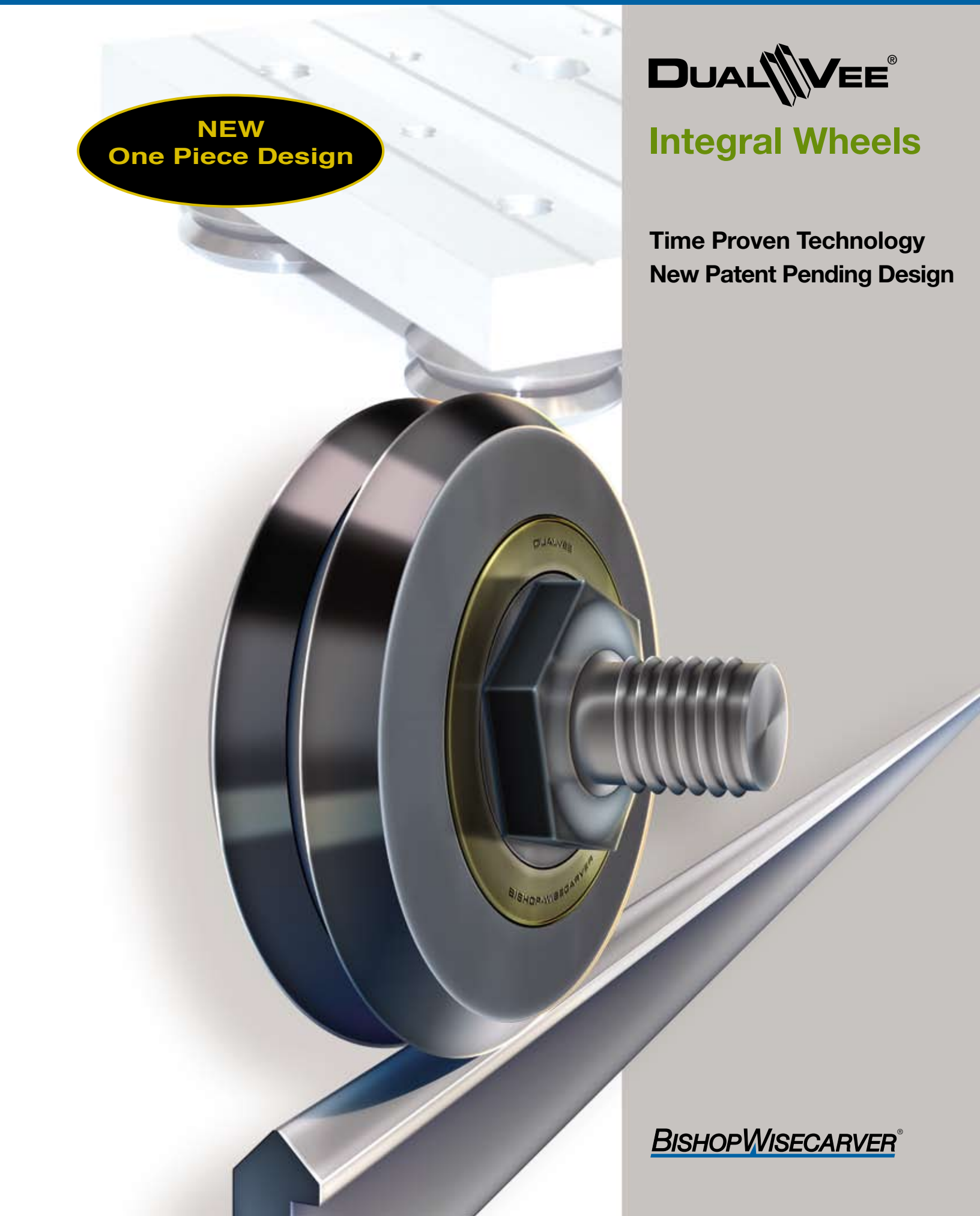


DUALVEE®

Integral Wheels

Time Proven Technology
New Patent Pending Design

BISHOPWISECARVER®

DUALVEE Motion Technology®

Bishop-Wisecarver is recognized as the market leader for guide wheel technology. In 1967, Bud Wisecarver invented DualVee to provide a solution for harsh environment applications where existing technologies were ineffective.

The vee design creates a velocity gradient, which results in a constant sweeping action that cleans debris from the track, and its bearing elements are completely sealed and isolated from the environment.

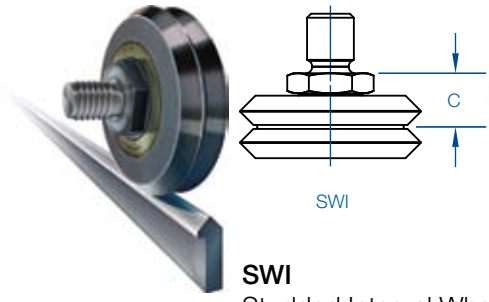
More than 40 years ago, DualVee set the standard. Today, Bishop-Wisecarver continues to lead the way, with even better performance in an innovative, time-saving, lower cost design, with the same high quality our customers expect.

- **Low Noise**
- **Smooth, anti-friction motion**
- **Speeds up to 5.5 m/s**
- **Acceleration up to 5 g's**
- **Ground mounting surfaces not required**
- **High accuracy and repeatability**

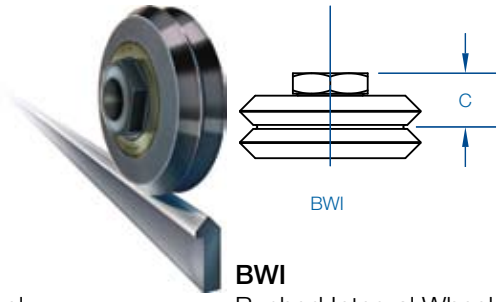
DualVee Integral Wheels – *Only from Bishop-Wisecarver*

- One piece construction with machined inner bearing race
- Lower profile
- Increased rigidity; up to 84% less deflection
- Lower overall cost
- Easy installation
- External adjustment and tightening
- Reduced tolerance stack up
- Larger diameter fasteners; up to 25% greater torque capability
- 440C stainless steel, carbon steel or polymer

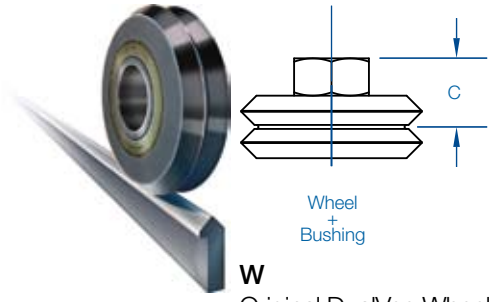
Lower profile and larger diameter fasteners provide greater rigidity and increased mounting torque capability, making integral wheels an excellent choice for new applications. Note that these improvements make integral wheels non-interchangeable with original DualVee wheels on existing applications. For replacement of existing wheels, please see the full line DualVee catalog.



SWI
Studded Integral Wheel



BWI
Bushed Integral Wheel

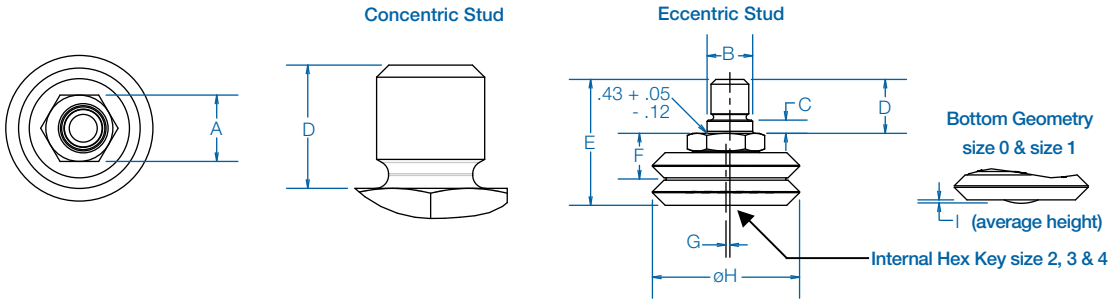


W
Original DualVee Wheel

	Mounting Height Comparison ("C")				Fastener Size Comparison				
Wheel Size	**SWI**	**BWI**	**Original Wheel + Standard Bushing**	**Original Wheel + Low Profile Bushing**	**SWI Concentric**	**SWI Eccentric**	**BWI Concentric**	**BWI Eccentric**	**Original Wheel + Bushing**
0	6.15	NA	NA	NA	M6	M5	NA	NA	NA
1	7.30	NA	10.16	6.05	M8	M6	NA	NA	M4
2	9.63	9.63	12.22	7.06	M10	M8	M8	M8	M6
3	13.63	13.63	17.41	11.42	M12	M10	M10	M10	M8
4	16.36	16.36	20.63	12.62	M14	M12	M12	M12	M10

Dimensions in mm

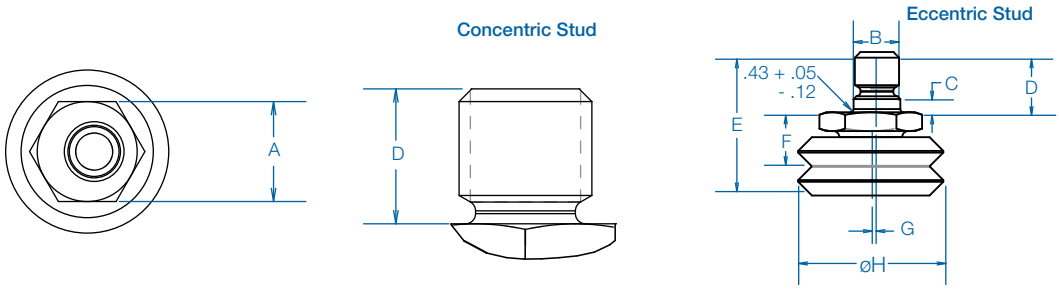
Integral Studded DualVee Wheels



Steel and Stainless Steel

Size	Radial Load (N)	Axial Load (N)	A	B[1]	C[2]	D[3, 5]	E	F[4]	G	Concentric Stud Thread	Eccentric Stud Thread	H	I (max)
0	650	123	11	5.56	2.16	7.62	16.95	6.15	0.46	M6 x 1.0	M5 x 0.8	14.83	0.43
1	1220	252	12	6.30	2.16	8.10	19.33	7.30	0.61	M8 x 1.25	M6 x 1.0	19.58	0.5
2	2650	625	14	9.53	2.79	11.38	26.57	9.63	0.76	M10 x 1.5	M8 x 1.25	30.73	-
3	5900	1701	19	10.72	4.32	15.11	36.68	13.63	1.50	M12 x 1.75	M10 x 1.5	45.80	-
4	9700	4001	22	12.70	4.50	19.00	44.89	16.36	2.01	M14 x 2.0	M12 x 1.75	59.94	-

Dimensions in mm



Polymer

Size	Radial Load (N)	Axial Load (N)	A	B[1]	C[2]	D[3, 5]	E	F[4]	G	Concentric Stud Thread	Eccentric Stud Thread	H
0	28	12	11	5.56	2.16	7.62	16.95	6.15	0.81	M6 x 1.0	M5 x 0.8	14.83
1	55	27.5	12	6.30	2.16	8.10	19.33	7.30	0.84	M8 x 1.25	M6 x 1.0	19.58
2	70	42	14	9.53	2.79	11.38	26.57	9.63	0.97	M10 x 1.5	M8 x 1.25	30.73

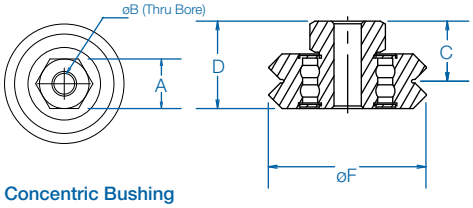
Dimensions in mm

Ordering Details:

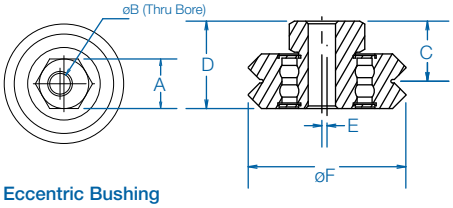
SWI	C	2	SSX
SWI: Integral Studded Wheel	**C:** Concentric **E:** Eccentric	Size	**Blank:** 52100 steel, shielded **X:** 52100 steel, sealed **SSX:** 440C stainless steel, sealed **P:** Polymer, shielded, Sizes 0, 1 & 2 only

1. Diameter Tolerance is +0.05/-0.00 2. Height Tolerance is +/-0.13 3. Height Tolerance is +/-0.1 4. Height Tolerance is +\-0.05 5. Custom stud lengths available – sizes 0-1, 1250 minimum order quantity; sizes 2-4, 2500 minimum order quantity. Call for pricing and delivery

Integral Bushing DualVee Wheels



Concentric Bushing



Eccentric Bushing

Steel and Stainless Steel

Size	Radial Load (N)	Axial Load (N)	A	B	C	D	E	F
2	2650	625	14	8	9.63	15.19	0.76	30.73
3	5900	1701	19	10	13.63	21.56	1.50	45.80
4	9700	4001	22	12	16.36	25.88	2.01	59.94

Dimensions in mm

Ordering Details:

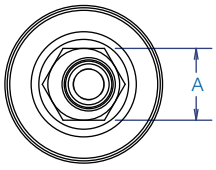
BWI — **BWI:** Integral Bushing Wheel

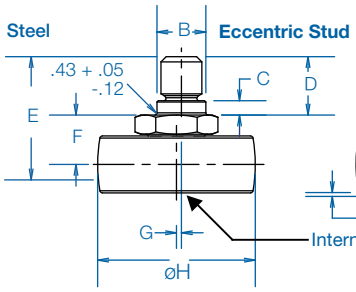
C — **C:** Concentric, **E:** Eccentric

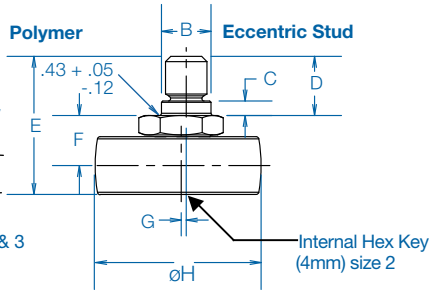
2 — Size

SSXM — **M:** 52100 steel, shielded; **XM:** 52100 steel, sealed; **SSXM:** 440C stainless steel, sealed

MadeWell™ Crown Integral Studded Wheels







Size	Radial Load (N)	Axial Load (N)	A	B[1]	C[2]	D[3]	E	F[4]	G	Concentric Stud Thread	Eccentric Stud Thread	H	I (max)
Steel													
1	1220	0	12	6.30	2.16	8.10	19.33	7.30	0.61	M8 x 1.25	M6 x 1.0	19.58	0.5
2	2650	0	14	9.53	2.79	11.38	26.57	9.63	0.76	M10 x 1.5	M8 x 1.25	30.73	-
3	5900	0	19	10.72	4.32	15.11	36.68	13.63	1.50	M12 x 1.75	M10 x 1.5	45.80	-
Polymer													
0	28	0	11	5.56	2.16	7.62	16.94	6.15	0.81	M6 x 1.0	M5 x 0.8	14.83	
1	55	0	12	6.30	2.16	8.10	19.34	7.30	0.84	M8 x 1.25	M6 x 1.0	19.58	
2	70	0	14	9.53	2.79	11.38	26.56	9.63	0.97	M10 x 1.5	M8 x 1.25	30.73	

Dimensions in mm

Ordering Details:

CSWI — **CSWI:** Crown Integral Studded Wheel

C — **C:** Concentric, **E:** Eccentric

2 — Size

P — **Blank:** 52100 steel, shielded; **X:** 52100 steel, sealed; **P:** Polymer, shielded, Sizes 0, 1, and 2 only

1. Diameter Tolerance is +0.05/-0.00 2. Height Tolerance is +/-0.13 3. Height Tolerance is +/-0.1 4. Height Tolerance is +\-0.05

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