VELAN
CAP-TIGHT

Batch Digester Capping Valves
Velan Cap Tight capping valves are delivering outstanding performance and exceptional reliability — because of their unique design. They were developed by using more than 25 years of experience in the application of automated capping.

These valves are manufactured by Velan Inc., one of the world’s leading manufacturers of industrial valves. The result is a superior capping valve that retains all the best features of previous designs, plus innovative solutions to old problems, at a new, lower cost to users.

We believe it is the best capping valve available, and we invite your closest examination of every detail and feature of our design...
PRESENTING THE NEXT GENERATION OF CAPPING VALVES

EVERY COMPONENT OF THIS VALVE HAS BEEN CAREFULLY DESIGNED TO DELIVER MAXIMUM SAFETY, RELIABILITY, EASE OF OPERATION AND LONG SERVICE LIFE.

1 THE BALL
The Velan design uses a full round ball, with two seating surfaces. It’s as if every valve came with a spare ball.

2 THE SEAT
The Stellite 6 seat is reversible. Just turn it over and you have a spare seat to go with the spare ball surface. Compare this to conventional one-sided seats.

3 THE SPRINGS
The key to long service life is strong ball-lifting force, to prevent chips and fines from lodging between the ball and the seat. The Velan capping valve uses heavy bar springs to do the lifting. These simple, reliable springs apply substantial, adjustment-free force directly to the ball. In fact, the lifting force is so reliable that the valve can be closed on chips in case of accidental overfilling. No lost time!

4 THE BODY
The valve body is side-split, not center-split, so it can use a circular, uninterrupted spiral-wound gasket, secured in place by a capture groove.

5 THE PACKING
Packing is pure braided Teflon, with an adjustable gland and a deep stuffing box. There is no cantilever ball-lifting, so no sideways force on the shaft. Our gland has a history of zero leakage.

6 THE TRUNNION BEARINGS
Stellited trunnion bearings are semi-circular, and their corners are left sharp to scrape the trunnions clean. Please note, fast-wearing plastic bearings are “NOT” used.

7 THE LOWER FLANGE
The extra-thick lower flange is custom-drilled, with a tongue if needed, to match your existing digester necks. Extra-large lower flanges can also be provided. We have no limitation on the size of the ball versus the size of the lower flange.

8 THE BOSSES
We provide two cast-in bosses for the mounting of safety pressure switches and/or digester pressure measurement instruments.

9 THE ACTUATOR
The actuator can be either pneumatic or electric, specially equipped with safety provisions to prevent accidental opening. Interlocks and torque-limiting are built into a three-part safety system.

10 NO ADJUSTMENT NECESSARY
All Velan capping valve parts are easy to install. Correct pressure is always applied between the ball and the seat by bar spring deflection when the body cover is bolted to the body. No adjustment and no factory experts needed!

11 EASY IN-PLACE MAINTENANCE
The Velan capping valve is easy to take apart and reassemble, even while on the digester. The valve’s few components are fully exposed when the top cover is removed.

12 SIMPLE
Above all, the Velan design is simple — an important consideration for valves used to handle wood chips. The only moving parts are the ball and its assembled shaft.
PRESENTING THE NEXT GENERATION OF CAPPING VALVES
Well-designed hoppers and chutes for automated feeding are essential for clean, fast filling of batch digesters. We are knowledgeable in the fundamentals of clean delivery of chips to digesters, without scatter of chips and sawdust and without expensive air removal systems.

These concepts are the standard for the industry and have been in successful use for many years in dozens of mills.

Velan will review your chip feeding system without obligation, to make your automated filling and capping as clean and fast as possible through sound chute and hopper design.

_Shown to the right:_ a few examples of innovative solutions in use:
# VELAN FULL PORT METAL-SEATED BALL VALVES FOR ALL DIGESTER APPLICATIONS

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<th>STYLE</th>
<th>FIGURE NUMBER</th>
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<td>1. Capping</td>
<td>Full ball, full port</td>
<td>F- 01L13-SP6K</td>
<td>With safety system</td>
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<td>2. White liquor</td>
<td>Full port</td>
<td>F- 11S13-BC2A</td>
<td>Locked scraper seats</td>
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<tr>
<td>3. Black liquor</td>
<td>Full port</td>
<td>F- 11S13-BC2A</td>
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<td>5. Top, bottom circulation</td>
<td>Full port</td>
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<tr>
<td>6. Blow</td>
<td>Full port</td>
<td>F- 11S13-BC2D</td>
<td>Standard tunnel ball</td>
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<tr>
<td>7. Blow diversion</td>
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<td>8. Steam control</td>
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<td>Full port</td>
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<td>Regular port</td>
<td>F- 10T13-BB2A</td>
<td>Standard metal seats</td>
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![Velan Batch Digester Diagram](image-url)

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