



Half Valved Diatonic Harmonica

The following is based on a Richter Tuned C harmonica.

When we bend a note, draw or blow, on a conventional Richter Tuned (non valved) harmonica, the note produced is the result of both reeds vibrating together to produce a tone, or a double reed bend. This explains why we can only bend certain notes on a Richter Tuned harmonica. When we bend draw hole #4 for example, we are flattening the note a half step from D to Db. Since the blow reed on hole #4 is C there is a half step interval available. Hole #3 draw is B and hole 3 blow is G so we have 3 semitones available...Bb, A, & Ab. Hole #5 draw is F and the blow note is E so there is no semitone available here and explains why we cannot bend 5 draw. Blow bends on a Richter Tuned harmonica follow the same theory. Hole #9 blow is a G note and the draw is an F so we can blow bend to the Gb or F#.

Half-valving to obtain additional notes:

By adding a valve to the opposite reed slot we are trying to bend, we can now do **single** reed bends of the notes we are playing. For example, by adding a valve to the 5th hole draw reed slot, we can now blow bend hole #5 to produce the Eb. Note that I said **reed slot** and not the reed. In the case of the blow reed slots, these would be under the top reed plate cover. In the case of the draw reed slots these would be located inside the comb between the teeth. The reason this is called half-valving is because you valve the first 6 draw reed slots and the last 4 blow reed slots. This means 10 valves on a 20-reed instrument, or half. The result is two complete chromatic scales and elements of another on both ends in cross harp or 2nd position. In first position, three full chromatic scales can be produced. All the extra notes, valved and non-valved, are flattened. They are referred to as valves because they function as an opening and closing device. Windsavers were designed to eliminate air leakage on harmonicas like chromatics, and to also cut down on how much wind was needed to produce a tone. However, when we blow into hole #5 that has a valve on draw reed slot #5 the valve is pushed down on the slot, sealing off the draw reed from vibrating and allowing us to do a single reed bend of the E, or blow note, to an Eb. The opposite is true for hole #8. When we draw out on hole #8 the valve on the blow reed slot closes and shuts off the E note from vibrating and allows us to do a single reed bend of the D, or draw note down to the Db.

The advantages:

First of all, the additional notes that become available from valving are all obtained using the same technique that we use when we do conventional draw and blow bends. I did not change my bending technique (draw or blow) to do the additional bends that the valves allow, but rather refined and improved it. Secondly, all 20 reeds on the instrument can now be played with more emotion and feeling, since they can all be shaded for expression. Playing valved bends also follows the same logic of regular bending in that we always flat the note. Logically this makes great sense since we are already familiar with doing that. And finally, I think the sound of the **Gazell Method** half valved harmonica moves the sound of the diatonic somewhat towards a chromatic harmonica, while still retaining the unique voice like quality that the diatonic possesses. It is important to note that none of what we could do on a diatonic prior to valving is compromised. We are only increasing the instruments versatility. I normally tell people that if they can successfully blow bend holes 8 and 9, they only need to transfer that same technique to holes 5 and 6. The valve simply allows the notes to be obtained.

The actual valving:

Gazell Method harmonicas use a fabric that resists moisture, is stiff enough to function as a valve, but soft enough not to buzz. We also leave a very small gap at the end of the reed slot to allow some air to pass through. This helps preserve the sonic quality like a non-valved diatonic, where air is passing through both the blow and draw reeds at all times.

Blow Reed Plate



Draw Reed Plate

Summation:

There is never any magic bullet for anything, and this is no exception. You must be able to bend notes well and with good intonation. It will also take some time to get your muscles to forget about where you are on the harmonica and just bend the notes like you would elsewhere. In addition, most players find that when they have successfully achieved valved bends, they have become a better bender of notes across the entire spectrum of the instrument.

For me, I now find it impossible to play without valves since I have all the notes at my disposal, and I have twice as much expression and emotion as I did before.

For further info or to order visit:

www.ptgazell.com
www.seydelusa.com

Three Octave Chromatic Layout For 10 Hole Richter Tuned Diatonic in C Major

The valved blow and draw bends are achieved using the same technique as regular blow & draw bends...the valves make it possible by shutting off the opposite reed you are trying to manipulate. For example in second position...to achieve the **F#** or major 7th on **blow note hole # 6**, the valve shuts off the **6th hole draw note**...or note **A**.

The result is a single reed bend of **blow note hole # 6** a half step down to **F#**.

All bends...blow and draw...valved & unvalved... are flatted.

← OCTAVE 1 → ← OCTAVE 2 → ← OCTAVE 3 →

Hole Position #	1	2	3	4	5	6	7	8	9	10
Blow Bend (1/2 Step)	B	E _b			E _b	F#		E _b	F#	B/B _b
Blow (No Bend)	C	E	G	C	E	G	C	E	G	C
Draw (No Bend)	D	G	B	D	F	A	B	D	F	A
Draw Bend 1/2 Step	D _b	F#	B _b	D _b		A _b	B _b	D _b		A _b
Draw Bend 1 Whole Step		F	A							
Draw Bend 1 & 1/2 Steps			A _b							

Aqua = Hole Position Number

Red = Valved Blow and Draw Bends (these are the extra notes available with valves)

Yellow = Straight Blow Note

Violet = Straight Draw Notes

Green = Unvalved Blow and Draw Bends

www.ptgazell.com

