# PASSION

THE DUALITY AQ PASSION LINE

Acoustique Quality

# PASSION FOR SOUND

FOR PERFECT FINISH

Passion is a desire and respect for music and sound. Passion is a result of the very best expertise in the world of passive loudspeakers. Passion is a culmination of 25 years of experience in manufacturing and designing loudspeakers. Passion is for sound, for state of the art technology and impeccable craftsmanship. Passion makes full use of the latest technologies, which are, among others: the 3D modeling system, five-axis CAM software, five-axis machining center, high precision cutter saws, advanced vacuum press, dust-free finishing facilities, sophisticated measuring systems Clio and MLSSA.

John Fairhurst. BluesAlive 2016 Šumperk 19. 11. 2016, Czech Republic

# FOR PERFECT TECHNICION

# ALPHABET OF PASSION

### **FINISH**

in this case, high gloss perfection? Start with a perfect base then apply, sand, polish and reapply. Repeat and then repeat again. All in all eight times. It is amazing how much quality finish influences the final sound of a loudspeaker. High gloss polyurethane lacquer increases the tautness of the entire

# MORNING

After a passionate night mornings could be difficult. However easier to focus.

#### STANDING WAVES -**ACOUSTIC WAVES**

Especially the standing waves are what make us work harder to eliminate them Multitude of solutions and elements were designed to suppress them. The results speak for themselves

# ACCURACY

Yes taken for granted but the accuracy used for Passion is extraordinary. Seemingly simple system of invisible joints puts enormous demands on accuracy. Number eight multiplies each joinery error in our world. Errors of 0.125 mm when using proprietary bonding become error of 1 mm. In the Passion accuracy must be in the order of five thousandths of a millimeter. Accuracy plays a significant role in the selection of the components used. Every component that is used in Passion is collected and individually measured. Capacitors and coils are formed to a highly accurate value.

# **HIGH END**

By definition, High End Audio is a truthful sound reproduction indiscernible from the original. A classic test is carried out with ideally placed opaque, acoustically transparent screen in a front of a orchestra with acoustic instruments and with an array of speakers. Then live recording is performed and the reproduced sound is compared to the sound of the live orchestra. If the level of High End is reached listeners are unable to determine when they were listening to a live event or to a recording. This is true passion.

# NEVER-ENDING HOPE

**THE SANDWICH** 

wall construction combines layers of

rigidity and vibration resistance than

The path to passion is not straightforward. On the contrary, it often seems that the road is going nowhere, and all the streets are dead end. Puzzle does not make sense until the main frame composes an image. For a long time it's just a gathering of colorful snippets.



# **BE CREATIVE**

Design with unique features .

# INFLUENCE

Follow your own ears to listen and to select. Do not follow the discussion forums and the opinions of others. Surrender to passion without being affected by advertising or sentiments of someone else.

# **ONE-OFF**

Passion is not for everyone. Copies of Van Gogh sunflowers may well hang in almost every interior. Artist in this case even created more originals, but they are not completely identical, and unlike the reproductions are not copies. So the Passion is prepared in extraordinary detail to adapt to its owner. Wood strip may be customized to coordinate with

Likewise, the final coating can be carried

# CASE

shell shape is very difficult to manufacture however in terms of rigidity it remains the strongest. It is a lot of hard work but it pays off in much better sound.

# JUST LISTEN

sound and judge yourself. Compare the sound of real acoustic instruments. Compare what the human ear perceives the most. The human voice, singing compare the accuracy, sibilance, detail and the inhale or exhale of the singer.

#### PRODUCTION QUANTITY

It is not about the quantity. This is an exclusively handmade product, which requires extraordinary amount of highly skilled man-hours. Customers might have to wait a bit. But the wait is absolutely worth it.

# QUALITY

Is the company name. Passion is meticulous all the way.

# UNIQUENESS

Passion is not for everyone. Some are satisfied with Fiesta and two-buck chuck. However for others passion is the only way. Music is moving and emotional, music is dreamy and contemplative, music can caress and energize. Experiences are deeper, more memorable but also can remain unobtrusive in the background. Passion is exceptional. It is not befitted for mass production, nor would it be technically possible. Passion is hand made with the utmost careful and humane touch. Passion reflects your personality.

# VALUE IS

in the first place. Therefore, the collaboration with the design studio was extensive and arduous. Mutual understanding had to be established. There were times when acoustic function preceded appearance and that was sometimes agonizing. However the result is a proof that the importance of the function leads to the objective.

# DESIGN

The studio NOVAGUE DESIGN was selected for the design work. Without advanced 3D modeling software, this series would not exist. Form follows function and here appearance is in perfect harmony with function. The shapes are Passion. The loudspeakers are elevated to a design object. Passion is the object that signifies the interior.

## **KNOW-HOW** AND DESIGN

WE

design, produce and manufacture loudspeakers from A to Z. On our premises we have a development department, joinery, paint shop, assembly quality control, the business department and the service department.

# EXTREME

Passion applies features and extreme technologies that are unique and cannot be used in traditional commercial loudspeaker manufacturing. It also denotes the extreme costs.

# LENIENCY

Tolerance of all around to loud volumes. Tolerance to the surroundings through low volume. Tight tolerances for used parts and components. High tolerance of designer's families.

### REVIEW

Internal inspection and quality control is important at every stage of production. Quality is checked thoroughly starting with the raw materials, precision machining, polishing, and individual lacquer layer thickness. Each unit is completely acoustically measured, tested and auditioned. Burn in period however is up to the listener.

# ZERO TOLERANCE

An artist cannot release work until it's entirely to satisfaction. Many times is completed and when the very best was given to withstands public and own



Loudspeakers with a passion. The flagship in the AQ fleet.

The Passion Loudspeakers are based on 25 years of expert loudspeaker design and the exquisite lines of the highly advanced enclosure designed by NOVAGUE DESIGN. Passion took two years to develop with progressive know how of the preceding Donna series. Cost was no object in the development of the Passion series, which established new absolute criteria and desire for impeccable musical delivery. Out of this passionate desire Passion was born.

βQ

Nikki Hill BluesAlive 2016, Šumperk 19. 11. 2016 Czech Republic Novague is a cutting edge industrial Design Studio based in Czech Republic that has received many design accolades. Their name is synonymous with ERKO R2 Car, The EDGE Chair, Favorit bicycle and the Solaris motorboat.

To achieve full range sound AQ Passion is designed as a three-way speaker with finely tuned bass reflex enclosure. Baffle is an asymmetrical shell consisting of a proprietary sandwich laminated wood-fiber material with integrated active system of internal damping BDS. Outstanding Danish Scan-Speak drivers were selected for all three sections, providing impeccable integration. Tweeter section is highlighted by

a 1" Illuminator high frequency driver with a field of six neodymium magnets, forming a symmetrical drive SD-2 with its own acoustic chamber. Positive impact on the directional characteristics of high frequencies has integrated aluminum phase plug, which also provides heat dissipation. Illuminator has a maximally balanced frequency response up to 45 kHz. The oscillating part is composed with half of the toroid and not a spherical cap, as usual. To reduce the diffraction, a damping rubberized rosette is inserted around the tweeter's membrane. The Scan-Speak midrange driver compliments seamlessly the tweeter section. It has a symmetrical drive SD-3, where the magnetic field is generated by neodymium magnet. Sophisticated cone with integrated flat ridges is designed to suppress the standing waves and is attached to linear rubber suspension.

3D sculpted baffle below the midrange features 10" Revelator bass driver that is attached with metric tensile strength bolts. 10" Revelator has advanced carbon fiber reinforced paper cone and has extremely low distortion and high power.

Spatial 3D speaker baffle is one of the key steps to achieving extremely flat phase response. With its proper spatial orientation, the acoustic axis of the loudspeaker is directed to the seated listener, not

PASSION IS A DISTILLATION OF THE BEST LOUDSPEAKER AVAILABLE

AQ,



the floor, as is common for standard although expensive speakers. Additionally, flush mounting of the drivers eliminates edge diffraction. Asymmetrically shaped enclosure eliminates interior standing waves and provides outstanding rigidity to the loudspeaker. The resulting sound is highly accurate and pristine.

Highest quality AUDIOQUEST Castle Rock internal wiring is used throughout. It features Solid Core and DBS system and it is thermally soldered. Internal Crossover features hand selected, matched components that are point to point soldered on 10mm panel. Aircore woofer coil uses impressive 4mm<sup>2</sup> high purity copper wire.

Audio Press: "Given the massive woofer it is not surprising that AQ Passion appreciates powerful amplifier, but what is pleasantly surprising is the astounding accuracy and balanced presentation. Overall, the Passion loudspeakers behave more like an audiophile two-way and with powerful bass driver filling the lowest octaves."

| width/height/depth | 300/1 220/440mm     |
|--------------------|---------------------|
| weight             | 55kg                |
| internal volume    | 501                 |
| impedance          | 6ohm                |
| max. noise         | 140W                |
| max. short-time    | 220W                |
| sensitivity        | 89dB/1W/1m          |
| frequency response | 20Hz-45kHz within 4 |
| crossover slope    | 12,6/12,12 dB/oct   |
|                    |                     |



Loudspeakers AQ Passion received A' Design Award & Competition 2015–2016 international award in audio, sound and music category. This award signifies exceptional innovative and design provenance.





A PASSION WAS BORN

PASSION TEEN EXCELS WITH BREATHTAKING AND SUPERBLY TRANSPARENT MIDRANGE AND WITH OUTSTANDINGLY SMOOTH FREQUENCY CHARACTERISTICS

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Small in size, big on sound, with a wonderful heart and full of passion for music. This is the compact two-way speaker Passion Teen.

Her heart is of Scandinavian origins and the best pedigree. Scan-Speak is true royal family in the world of drivers and the Passion Teen features the best from Scan-Speak, fitting her slender body. The tweeter is the latest in the series of 1" Illuminators. Membrane does not form a spherical cap, as usual, but in this case the membrane has the partial shape of a toroid. Centrally placed metal Phase plug improves cooling and guarantees outstanding flat frequency response ± 2 dB from 1 kHz to airy 30 kHz. Metal Faceplate features porous rubber that suppresses acoustic diffraction. Six neodymium magnets positioned in the AirCirc rear chamber creates permanent magnetic field. 6.5" Scan-Speak Revelator series of the same royal pedigree handles midrange and the bass. Paper membrane is sliced with irregular grooves and filled with proprietary damping material. This solution significantly reduces the possibility of standing waves on the membrane and membrane breakup. The suspension is low loss rubber SBR and allows extreme x-max up to 13 mm.

The result is outstanding transfer of extremely low frequencies. The magnetic drive consists of a proprietary symmetric linear motor SD -1. Passion Teen baffle was created through advanced 3D modeling and is produced on a five-axis CNC from a 50mm HD MDF panel. Drivers are mounted with high tensile strength metric screws to optimal tension that unifies the driver and the baffle into one element. The loudspeaker enclosure is manufactured with a sandwich technology with an active BDS damping and non-reflective internal panels. With this advanced construction, the entire enclosure is incredibly rigid and eliminates resonances and the internal standing waves. Spatial location enables the acoustic axis directed to the seated audience, the transition zone between the drivers is phase correct and there is no diffraction.

The superiority of the driver's internal crossover results in a first order that has the advantage of minimal phase shift. Internal wiring is Solid Core AUDIOQUEST. Crossover components are hand selected, individually measured, matched and are point to point wired and thermally soldered. Internal wiring is soldered directly to the contacts on the transducers and terminals, eliminating the possibility of contact resistance.

| width/height/depth | 2 |
|--------------------|---|
| weight             | 1 |
| internal volume    | 2 |
| impedance          | 6 |
| max. noise         | 7 |
| max. short-time    | 1 |
| sensitivity        | 8 |
| frequency response |   |
| crossover slope    | 6 |
|                    |   |

AQ Passion Teen excels with breathtaking and superbly transparent midrange and with outstandingly smooth frequency characteristics. All of the above efforts guarantee an amazing 3db measured performance from 800Hz to 30kHz.



Two-way loudspeaker in Passion line has truly expressive and befitting name Orca. Orca is elegant and beautiful, yet her ferocious beauty is not for everyone. Orca can be affectionate and fierce, cold and playful. Her sharp teeth can gently grasp, but also thoroughly bite.

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Orca is elegant in motion and when looking at the Orca Passion Stand the black and white combination is captivating and is as fascinating as a killer whale jumping above the water surface. Beauty is not just skin deep; the shape of the body, strength and coordination of muscles, devotion and keen senses determine beauty. Two-way loudspeaker in Passion line has truly expressive and befitting name Orca. Orca is elegant and beautiful, yet her ferocious beauty is not for everyone. Orca can be affectionate and fierce, cold and playful. Her sharp teeth can gently grasp, but also thoroughly bite. Orca is elegant in motion and when looking at the Orca Passion Stand the black and white combination is captivating and is as fascinating as a killer whale jumping above the water surface. Beauty is not just skin deep; the shape of the body, strength and coordination of muscles, devotion and keen senses determine beauty. Orca's beauty was shaped by natural selection through millions of years of evolution. Physical laws define beauty and functionality of AQ Passion Orca. Multiple small segments form the baffle and the enclosure. This origami like segments creates extremely rigid speaker cabinet while minimizing parallel surfaces and eliminating the internal standing waves. Internal waves are typically formed by large parallel surfaces. The sound wave is reflected off the walls as a mirror image - a phenomenon where a new sound wave is created and is reflected back to the cone of the driver. Multitude of frequencies starts to amplify, attenuate others and cause an undesirable distortion. The very shape of the Orca achieves significant reduction of parallel surfaces. The segmented areas have additional advantage - a small dimensionality. Small areas are much more resistant to resonances yet another disadvantage of a typical loudspeaker. Orca small-segmented walls are much more resistant to resonances and are crucial design element as wall segments are connected at an angle that increases the overall rigidity of the enclosure.

This precise and complex manufacturing technology elevates Orca beyond typical loudspeaker production and it allows removing voluminous internal bracing thus allowing a slender dimensions. To achieve perfection a BDS active resonance correction was also applied. Resulting enclosure is incredibly rigid and resonance free and delivers an astonishing performance.

However the beautiful, slender body houses a mighty heart of an athlete. High End drivers from prestigious Scandinavian Scan-Speak were carefully selected to achieve an optimum performance. Directly from top of the line Illuminator Woofer a six-inch 8747 with 3D aluminum cone was selected to fulfill mid-bass duties. Cast frame and neodymium magnet ensures extremely linear and long motion of the cone.

A visually splendid ring radiator tweeter R3004/66020-00 was selected to compliment this exceptional mid-bass. The tweeter also matches the mid-bass with its technical proves and features ring neodymium magnet, patented symmetrical drive SD-2, patented phase plug and sound transparent protective grille.

All of the elements of an exceptional loudspeaker need to work in harmony. The enclosure and the drivers no matter how outstanding will not perform without precise internal neurological network – a crossover. Orca crossover is built on massive polyethylene panel, that features point to point wiring and machined spaces for contacts and crossover elements that are firmly secured to the panel with adhesive and screws. Core with structure-oriented copper. The terminals combine work of art and precise engineering to allow firm and superb connection to the amplifier signal. These custom terminals feature machined polyethylene plate, solid core gold plated copper connectors allowing for bare wire, banana and spade connections. Bi-wiring and Bi-Amping is also possible. Orca depends on strong muscular tale to charter the waters. Orca Loudspeaker depends on design specific stand that allows proper support, listening height and absolutely compliments the slender beauty. To secure precise alignment a series of hidden

neodymium magnets were imbedded in the enclosure and the stand. Antivibration pads reduce vibration transmission to the stand and quartet or audiophile trio of spikes further reduce transmission to the floor.

Yet all of this would not work without a proper

superb network of arteries and the arteries in

blood supply. In Orca the blood is delivered with

Orca Loudspeakers is exquisite Audioquest Solid

Although modest in size Orca sound is astonishingly powerful and voluminous. It's a floorstanding loudspeaker in a rather diminutive enclosure.

> Midwoofer Scan-speak Illuminator 18WU from Passion Orca



No loudspeaker is perfect nevertheless Orca represents the finest in the world of audio and it is a State of the Art loudspeaker that will bring listeners closer to the music.



| width/height/depth | 256/280/411mm         |
|--------------------|-----------------------|
| weight             | 14kg                  |
| internal volume    | 151                   |
| impedance          | 8ohm                  |
| max. noise         | 80W                   |
| max. short-time    | 160W                  |
| sensitivity        | 89dB/1W/1m            |
| frequency response | 30Hz-40kHz within 4dB |
| crossover slope    | 12,6 dB/oct           |







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EUROPEAN UNION European Regional Development Fund Operational Programme Enterprise and Innovations for Competitiveness