

# QUADRA: CLEAR AND ACCURATE VIEW OF YOUR CONCRETE PRODUCT MANUFACTURING PLANT

Committed to serving the concrete industry, Quadra is a leading equipment manufacturer recognised for its high-performance plants and innovative solutions designed for the concrete precast industry.

Experts in automated process and utilizing a patented vibration system, Quadra designs and manufactures turn-key plants producing a wide range of concrete products (blocks, kerbstones, paving stones, slabs etc...).

- All design is carried out in-house utilizing multiple engineers all with distinct expertise (mechanical, electrical, automation, robotic, hydraulic and data processing design)

  Quadra designs your equipment based on your exact requirements and specifications.
  - The comprehensive study of your project leads to the most efficient solution and recommendation of equipment
    - The design is based on the entire range of equipment and technical services needed
  - Existing equipment and operations can be reviewed by Quadra's experienced engineers to determine the best solutions for optimizing the electrical and hydraulic equipment, increasing automation and improving vibration
- Experienced technicians are readily available ensuring excellent customer service and technical support Quick and efficient customer service : remote maintenance, hotline support, assistance subscriptions.
  - \*Enhanced\* Customer Service using a collaborative platform > access to technical documents, production management in real-time, online spare parts catalogue & quote requests, customer service contact available (24/7).

On-site technicians assistance for training, technical diagnostics, production analysis, troubleshootings.

All equipment is assembled, erected and wired in our facility. We perform extensive machine testing, including adjustments and running in manual and automatic mode prior to shipment.

**Innovation** 

**Quality** 

**Satisfaction** 

**Performance** 

Expertise

Safety

**Project Review & Design** 



**Manufacturing** 



**Assembling & Testing** 



Shipping



# **Innovation Policy**Quadra is committed

Quadra is committed with their policy to continually invest, ensuring innovation and implementation of new technology to optimize production and machine efficiency on all Quadra equipment.



Installation



Start-up



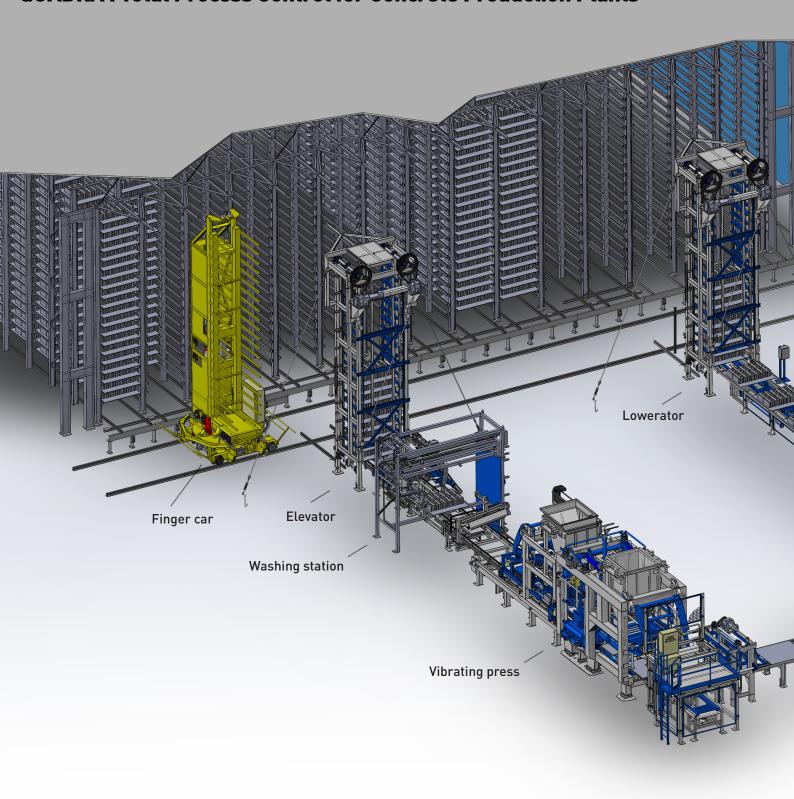
Training



Support

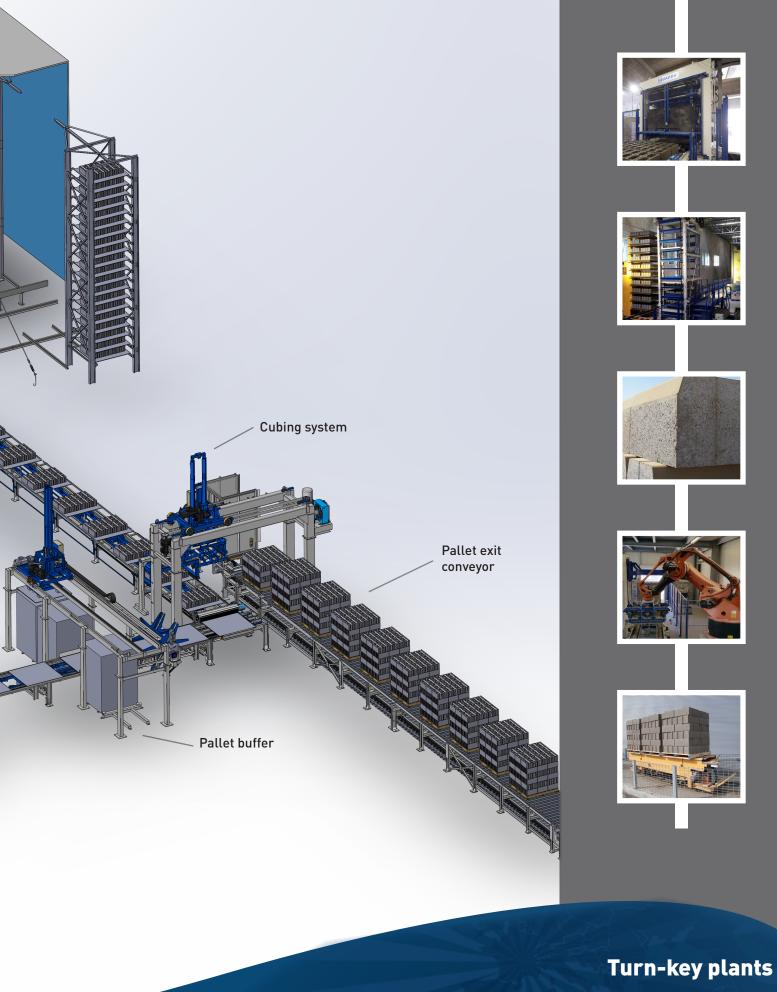


## **QUADRA: Total Process Control for Concrete Production Plants**



## Complete line of equipment:

- Concrete products machines
- Product transfer and packaging systems
- Auxiliary equipment
- Grinding machines
- Batching and mixing plants



Turn-key plants
Standard or customized plants
Functional and rational design

## **PRODUCTION DATA**

Products	Dimension (cm)	Products Nb/cycle	Cycle time (s)	Production 100% / 8h (units)	Production sqm	
QUADRA 5E	Production boards : 1 200 x 650 mm			Production area : 1 120 x 620 mm		
Blocks 2 cavity	20 x 20 x 50	5	18	8 000		
Blocks 2 cavity	15 x 20 x 50	7	18	11 200		
Pavers one layer	10 x 20 x 6	25	17	42 353	847 m²	
Pavers two layers	10 x 20 x 6	25	20	36 000	720 m²	
Kerbstones T2 one layer	15 x 25 x 100	2	22	2 618		
QUADRA 5F	Production boards : 1 200 x 650 mm			Production area : 1 120 x 620 mm		
Blocks 2 cavity	20 x 20 x 50	5	15	9 600		
Blocks 2 cavity	15 x 20 x 50	7	15	13 440		
Pavers one layer	10 x 20 x 6	25	15	48 000	960 m²	
Pavers two layers	10 x 20 x 6	25	18	40 000	800 m²	
Kerbstones T2 one layer	15 x 25 x 100	2	20	4 320		
QUADRA 5 / QUADRA 5HI	Production boards : 1 200 x 650 mm			Production area : 1 120 x 620 mm		
Block 2 cavity	20 x 20 x 50	5	12.5 / 10	11 520 / 14 400		
Block 2 cavity	15 x 20 x 50	7	12.5 / 10	16 128 / 20 160		
Pavers one layer	10 x 20 x 6	25	12 / 9	60 000 / 80 000	1 200 m² / 1 600 m²	
Pavers two layers	10 x 20 x 6	25	15 / 12	48 000 / 60 000	960 m² / 1 200m²	
Kerbstones T2 one layer	15 x 25 x 100	3	18 / 16	4 800 / 5 400		
QUADRA 10HP	Production boards : 1 200 x 1 150 mm			Production area: 1 120 x 1 100 mm		
Blocks 2 cavity	20 x 20 x 50	10	12.5	23 040		
Blocks 2 cavity	15 x 20 x 50	14	12.5	32 256		
Pavers one layer	10 x 20 x 6	50	12	120 000	2 400 m²	
Pavers two layers	10 x 20 x 6	50	15	96 000	1 920 m²	
Kerbstones T2 one layer	15 x 25 x 100	5	20	7 200		

Rates may vary based on aggregates and mix designs (±10%)

## Production units designed for manufacturing a large range of concrete products











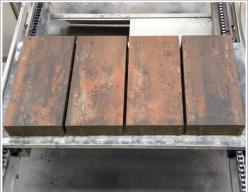
## PRODUCTION DATA

Products	Dimension (cm)	Products Nb/cycle	Cycle time (s)	Production 100% / 8h	Production sqm	
QUADRA 6F	Production boards : 1 400 x 700 mm		Production area : 1 320 x 650 mm			
Blocks 2 cavity	20 x 20 x 40	9	15	17 280		
Blocks 2 cavity	15 x 20 x 40	12	15	23 040		
Pavers one layer	10 x 20 x 6	36	15	69 120	1 382 m²	
Pavers two layers	10 x 20 x 6	36	18	57 600	1 152 m²	
Kerbstones T2 one layer	15 x 25 x 100	3	20	4 320		
QUADRA 6 / QUADRA 6HP	Production boards : 1 400 x 700 mm			Production area : 1 320 x 650 mm		
Blocks 2 cavity	20 x 20 x 40	9	12.5 / 10	20 736 / 25 920		
Blocks 2 cavity	15 x 20 x 40	12	13 / 10	26 585 / 34 560		
Pavers one layer	10 x 20 x 6	36	12 / 9	86 400 / 115 200	1 728 m² / 2 304 m²	
Pavers two layers	10 x 20 x 6	36	15 / 12	69 120 / 86 400	1 382 m² / 1 728 m²	
Kerbstones T2 one layer	15 x 25 x 100	3	18 / 16	4 800 / 5 400		
QUADRA 9 / QUADRA 9HP	Production boards : 1 400 x 900 /1 400 x 1 100 mm			Production area : 1 320 x 850 /1 320 x 1 050 mm		
Blocks 2 cavity	20 x 20 x 40	12	13 / 12	26 585 / 28 800		
Blocks 2 cavity	15 x 20 x 40	14	14 / 13	28 800 / 31 015		
Pavers one layer	10 x 20 x 6	54	12 / 10	129 600 / 155 520	2 592 m <sup>2</sup> / 3 110 m <sup>2</sup>	
Pavers two layers	10 x 20 x 6	54	15 / 13	103 680 / 119 631	2 074 m² / 2 393 m²	
Kerbstones T2 one layer	15 x 25 x 100	5	20 / 18	7 200 / 8 000		
QUADRA 12HP	Production boards : 1	400 x 1 300 mm		Production area : 1 320 x 1 250	mm	
Blocks 2 cavity	20 x 20 x 40	18	13	39 877		
Blocks 2 cavity	15 x 20 x 40	24	13	53 169		
Pavers one layer	10 x 20 x 6	66	12	158 400	3 168 m²	
Pavers two layers	10 x 20 x 6	66	15	126 720	2 534 m²	
Kerbstones T2 one layer	15 x 25 x 100	6	18	9 600		

Rates may vary based on aggregates and mix designs (±10%)

## Pavers, kerbstones, blocks, slabs, and any garden & landscaping products











## **VIBRATING PRESS: Key Technical Features**

#### **MACHINE PLACEMENT: MANY ADVANTAGES**

- Machine is placed on flexible anti-vibration rubber legs
- Eliminates expenses for special machine pit or additional civil engineering
- Minimizes transmission of vibration to the floor and reduces noise
- Minimizes dynamic stress to the machine

#### **FUNCTIONAL ARCHITECTURE**

- One-piece heavy welded frame with reinforced base for heavy loads
- Elevated frame for easy access and cleaning operation
- Lower cost, easy to maintain

## CONTROLLED AND PRECISE MACHINE MOVEMENTS

- Reliability from ability to control speed of all movements of the machine
- Easy and continuous control of all machine movements
- Optimized sequential cycle

#### **VIBRATING SYSTEM: APPLY EXPERTISE**

- One-piece vibrating table assuring consistent vibration characteristics across the table
- Electronically controlled servo-motors located to the side of the machine
- Location allows better protection of motors and greater access

#### **QUICK MOLD CHANGE**

(less than 10 minutes)

- Automatic quick-change device for changing the mold frame and tamper head
- Quick-release clamps for the mold and the tamper head
- Automatic feedbox height adjustment for different height molds
- Option for manual movement from the control console
- Storage of settings for each mold for automatic adjustments

#### **MACHINE HOPPER AND FEEDBOX**

- Amount of material in hopper is constantly monitored
- Hopper held in an anti-vibration mechanism
- Laser used to accurately read the amount of material in the feedbox
- Shaking agitator grid accelerates mold filling
- Option to use face mix

#### **INTUITIVE CONTROLS CONSOLE**

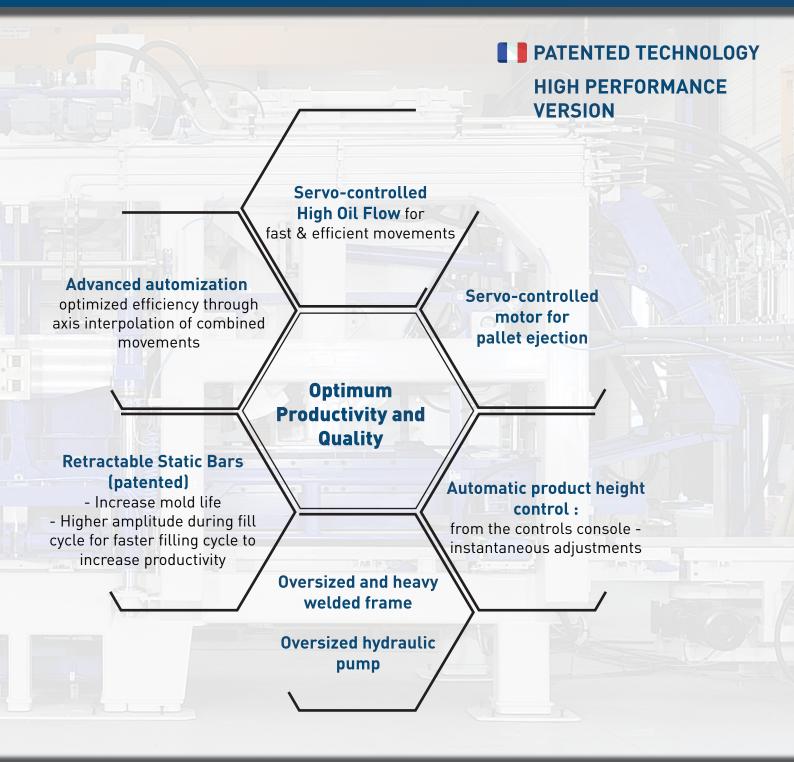
- Touch screen terminal for adjustments and a global view of all production parameters
- Clear and comprehensive instrumentation
- Overview of all functions of the machine
- Localization and display of any errors
- Production management and product traceability features

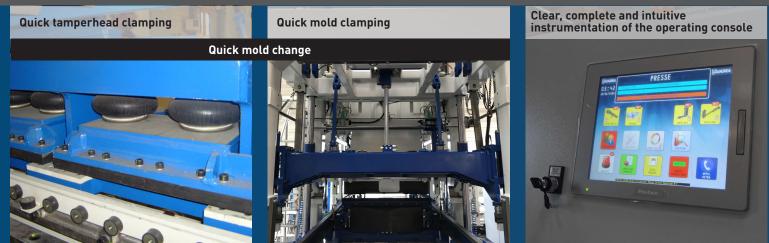






## Multipurpose and efficient vibrating press















## **HANDLING SYSTEM**

Integrated Safety & Consistent speed
Continuous operation and unlimited versatility
Versatile equipment
Easy to parameter











## **COMPLEMENTARY EQUIPMENT**

Additional equipment available for increased performance, productivity, and competitiviteness.

## **FULLY AUTOMATED MOLD CHANGE**

Efficient mold change system reducing labour and improving safety: flexible and versatile production



- Automated machine settings: machine settings are recorded for each mold. Tamper head, machine and feedbox are automatically adjusted for the new mold
- Production on the machine is only interrupted for 5 minutes: extreme versatility & increased productivity
- No manual handling required : providing a safer working environment
- Automatic control from the control room: the operator watchs and oversees the operation from the control
  cab. No handling operations. The operator remains in the safety area and does not need to be around the
  machine at any time.
- Automatic placement of the mold in the washing station: no fork-lift needed

## **WASHING STATION**

Enhances the natural surface of the product

High pressure washing. Can be adapted for any size or type of products.



## **BLOCK TURNOVER**

Complete range of sizes

Integrated turnover device between the lowerator and the cubing line.



### **QUALITY CONTROL STATION**

Product height and quality checks

A control station raises one pallet for checking height accuracy and quality, then returns it to the line never interrupting production.



## **ARRANGING TABLE**

Versatile cubing solution

Products are selected and placed on arranging table according to the size of the pallet and the type of product to be palletized.



## **PROTECTION BETWEEN TIERS**

**Automatic spacer placement** 

Spacers are automatically placed between product tiers to protect quality of the products during packaging and shipment.



## **PALLETS BUFFER**

Increased efficiency

For capacity from 10 to 2000 pallets, the pallet buffer ensures consistent operation and efficient rate within the production line.



## **EQUIPMENT FOR INSULATED BLOCKS**

Polystyrene insertion device

Mounted on one side of the press in a secure and safe area.

This device requires only one operator.



## **BATCHING & MIXING PLANTS**



#### **HIGH QUALITY SERVICES**

Projects defined after a thorough technical analysis :

- Complete design and manufacture of the entire batch plant
- Integration of the mixer based on your requirements
- Centralized operating console (automation, weighing, moisture control, concrete delivery and overall production management)
- Technical upgrading of existing equipment

#### **CUSTOMIZED DESIGN**

Our engineers will analyse your project to ensure the design and implementation of our equipment match your needs and suit your manufacturing processes properly.











## Complete range of machine options

## Mortarless block systems

- Mortarless construction system with unit heights grinded to exact specifications to be assembled using thin glue instead of mortar
- This system reduces construction time and cost, improves quality and assures a cleaner worksite

### **Production process**

- Off-line grinding: introduce units from the yard to the grinding machine and a separate cuber
- On-line grinding: introduce units straight from the lowerator to the grinding machine and cubing line

#### Easy integration of the equipment

• Simultaneous grinding on both sides of the unit (patented), a simple and effective process

#### Cleaning and maintenance

- Easy accessibility
- Quick change tooling

#### Reduced noise and dust

- Vacuum system to remove dust
- Soundproof exterior to reduce noise











