JD5 – 5 AXIS CUTTING HEAD

HEIGHT SENSOR, ANTICOLLISION SYSTEM & IKC THE EXCLUSIVE FEATURES OF THE BRAND NEW JD5AX FURTHER ENHANCE FLEXIBILITY OF CMS' 5-AXIS WATERJET SYSTEMS, BY PROVIDING VERY HIGH ACCURACY AND AN UNPARALLELED CUTTING QUALITY.

JD5AX

JD5AX EMPLOYS DIRECT **DRIVE MOTORS** (TORQUE) WITH ZERO BACKLASH, WITH AN **INFINITE ROTATION AXIS (C)** AND **INTERNAL ABRASIVE FLOW**, AS WELL AS A TILTING AXIS (B) UP TO ± 62 DEGREES. THE MAIN INNOVATION OF THE INFINITE ROTATION IS THAT THERE IS NO MORE NEED TO RESTART THE HEAD AFTER A CERTAIN AMOUNT OF ROTATION. THIS RESULTS IN A MORE ACCURATE CUTTING PROCESS AND SIGNIFICANT SAVINGS OF TIME WHEN CUTTING IN NESTING MODE OR IN GENERAL WHEN WORKING WITH MULTIPLE REPEATED PARTS.

IKC INTELLIGENT KERF COMPENSATION

AS THE WATER JET TECHNOLOGY DOES NOT ENTAIL A FIXED TOOL – UNLIKE A MILLING PROCESS, FOR EXAMPLE –THE JET PROGRESSIVELY LOSES ITS EROSIVE EFFICIENCY DURING THE CUTTING PATH, ESPECIALLY WHEN WORKING WITH THICK AND ESPECIALLY HARD MATERIALS.

THE DIMINISHED PERFORMANCE LEADS TO LESS ACCURATE CUTS, WITH A LARGER KERF AT THE TOP AND A SMALLER ONE AT THE BOTTOM. THIS IS THE TAPER, A TYPICAL ISSUE OF THE ABRASIVE WATERJET CUT.

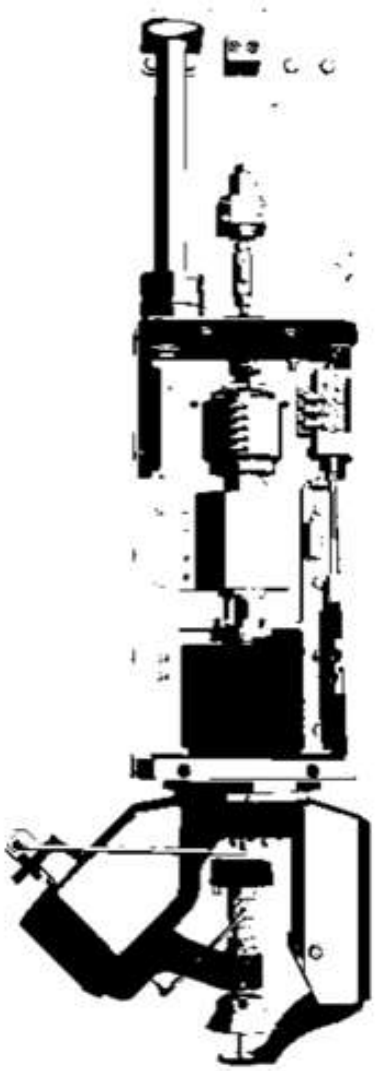
THE NEW JD5AX HEAD - ALONG WITH THE **AUTOMATIC KERF COMPENSATION (IKC)** - ALLOWS TO IMPROVE THE TAPER WHILE CUTTING AT HIGHER SPEEDS.

ACCURATE PERFORMANCE

- **PRISMATIC STRUCTURE**, WHEREAS B AND C AXIS ARE INTERCONNECTED, LEADING TO MORE EFFICIENCY AND EASIER PROGRAMMING
- BEVEL CUT AND TAPER CORRECTION UP TO **± 62 DEGREES**.
- **IKC** INTELLIGENT KERF COMPENSATION MANAGED THROUGH SOFTWARE
- DIRECT TRANSMISSION "C - B"
- **Z AXIS** STROKE: 8'' - 200 MM
- POSITIONING ACCURACY **< 0.03 DEGREES**
- THE SOFTWARE MANAGES AUTOMATICALLY THE **X-Y AXIS STROKES**, ACCORDING TO THE APPLICATION, AND IN RELATION TO THE POSITION OF B AND Z AXES

TOP COMPONENTS AND EXCLUSIVE CONSTRUCTION PRINCIPLES

- THE HIGH-PRESSURE PIPES RUN ALONG **INFINITE-ROTATION SWIVEL JOINTS**, FULLY DESIGNED BY CMS, AVOIDING SPIRALS WHICH ARE NORMALLY SUBJECT TO A VERY SIGNIFICANT WEAR. FEWER COMPONENTS SUBJECT TO WEAR CYCLES (HIGH PRESSURE)
- INTERNAL **GARNET FLOW** (PATENTED)
- NEW **ANTI-COLLISION SYSTEM** WITH LOAD SENSORS IN FIXED POSITION TO IMPROVE PROTECTION
- FIXED ROTATION POINT: THE **HEIGHT SENSOR / ANTI-COLLISION** SYSTEM MAY RUN EVEN WHEN BEVEL CUTTING
- ALUMINUM **HEIGHT SENSOR BRACKET** MANUFACTURED FROM CASTING TO PROVIDE MAXIMUM RIGIDITY
- **STAINLESS STEEL GUARD** TO PROTECT THE ROTATING JOINT, AS WELL AS ALL MECHANICAL AND ELECTRICAL COMPONENTS
- B AXIS TREATED WITH DUST-PROOF AND ANTI-CORROSION **CERAMIC COATING**



JD5 AX

STANDARD TECHNICAL FEATURES *		
B AXIS	+/- 62	°
C AXIS	INFINITE	°
ACCURACY	< 0.03	°
Z XIS	8'' – 200MM	

JD5 INNOVATIVE SOLUTIONS

- ❑ INFINITE ROTATION, IDEAL FOR FOR NESTING AND COMPLEX CUTS
- ❑ HIGH POSITIONING ACCURACY
- ❑ HIGHER SPEED AND ACCELERATION
- ❑ AUTOMATIC TAPER CORRECTION UP TO 62 DEGREES
- ❑ FEWER AND SIMPLER MAINTENANCE
- ❑ "*INSTANTJET*" SYSTEM FOR QUICK OPEN/CLOSE OF WATER JET
- ❑ EASIER ALIGNMENT OF WEAR COMPONENTS IN CASE OF REPLACEMENTS
- ❑ MOST COMPACT 5-AXIS SYSTEM ON THE MARKET, ALL MADE BY CMS