K-APEX

Intelligent CNC Press Brake



A configuration-led technical guide for sheet-metal machinery importers.

SPECIFY / VERIFY / PROCEED

K-APEX at a glance.

An electro-hydraulic synchronized CNC press-brake platform for flexible, multi-variant sheet-metal production.

600–3200 kN
BENDING FORCE RANGE

2100–6100 mm
USABLE BENDING LENGTH

CORE AXIS ARCHITECTURE

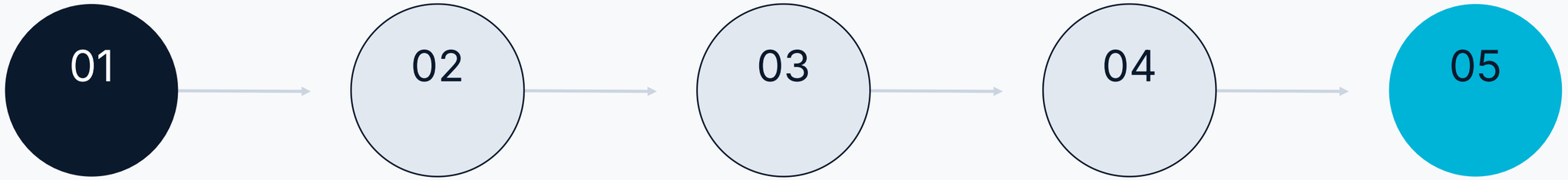
4+1 / Y1 · Y2 · X · R + CM



SELECT FINAL WORKING AREA AND OPTIONS AGAINST PART, MATERIAL AND TOOLING REQUIREMENTS.

Configure from the part backward.

Structure the quotation around the performance modules that change bend quality, setup time and operator flow.



Will confirm the control package, axes, crowning, backgauge, safety, tooling, electrical standard and documentation on the written quotation.

Four modules. One coherent specification.

Use the final production brief to align every module before issuing the purchase order.

01

Machine core

Frame and ram · 4+1 axes · HAWE hydraulics · G-TM / G-BM interface

02

Control & software

GTS-22 · Smart 4.0 · 3D Bend · Air Touch

03

Motion & accuracy

6+1 / 7+1 axes · GHP backgauge · B-CM crowning

04

Operator flow

LED Bar · front support · sheet follower

Control the bend. See the workflow.

The controller governs programme preparation, operator adoption and support requirements.

GTS-22 CNC CONTROL

21.5-inch high-resolution capacitive touchscreen
2D graphical touch programming
3D viewing and CAD import support
Modular design with bus communication

SMART 4.0 + 3D BEND

Optional data visibility, drawing management and 2D / 3D bend-programme workflow.



VISUAL / MODULAR / CONNECTED

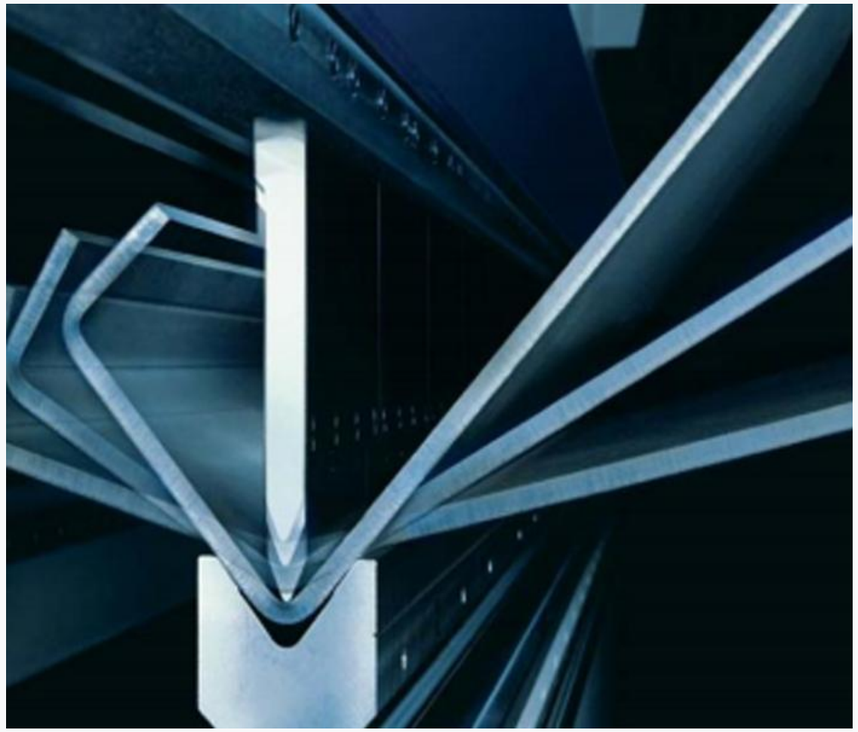
Hydraulic system & energy path.

Component selection shapes noise, thermal behaviour, running cost and the long-term service conversation.

INTEGRATED CONTROL PATH

The K-APEX HAWE hydraulic system uses a SAKB pressure-control block and two independent filling-valve groups. Non-filling valves are integrated into a single control unit for proportional force and flow management.

UP TO 70%	≤ 60 dB	≤ 50°C
ENERGY SAVING*	MAX-SPEED NOISE*	OIL TEMP AT 38°C*



*Optional dual-servo pump technology; values follow KLD supplied product documentation and stated operating conditions.

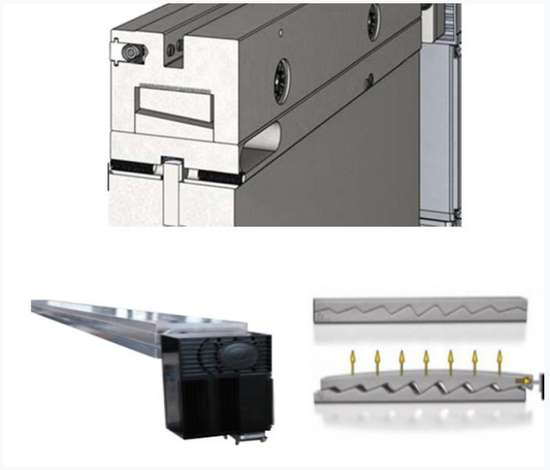
Tooling, clamping & crowning.

These interfaces shape setup time, tool alignment and the repeatability conversation for long or complex parts.



G-TM + G-BM

Upper and lower tool-clamping interfaces.



B-CM MECHANICAL CROWNING

Compensation path for bending geometry.

SELECTION NOTE

Specify the target angle consistency.

Validate the crowning solution against material grade, sheet length, V-opening, tooling, part geometry and acceptable angle variation.

Backgauge & positioning.

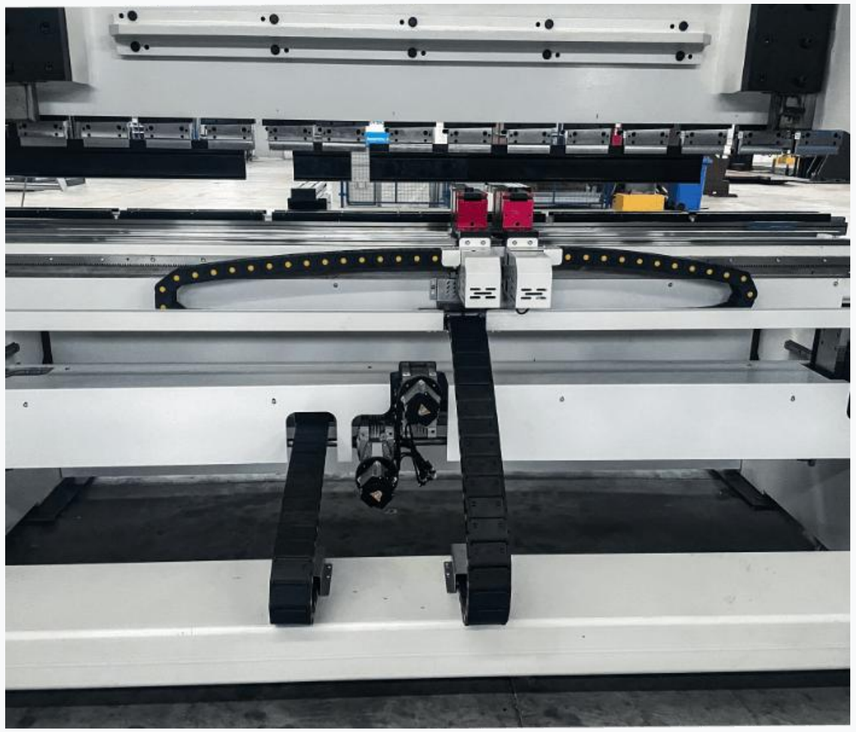
Evaluate positioning capability with part mix, flange geometry and operator handling conditions—not in isolation.

POSITIONING ARCHITECTURE

Grade-5 rack and pinion with a precision worm-gear reducer
Enclosed self-lubricating X-R transmission
Direct dual drive for left / right synchronization
Anti-collision finger mechanism

SELECTABLE BACKGAUGE

GHP-2 / GHP-4 / GHP-5



SEALED X-R TRANSMISSION AND REAR FINGER SYSTEM

Support the sheet. Guide the operator.

Material-handling options help align the machine with part scale, complexity and the operator’s working rhythm.



CNC SHEET FOLLOWER

01 **Front support**

Supports handling of large or complex sheet workpieces.

02 **CNC sheet follower**

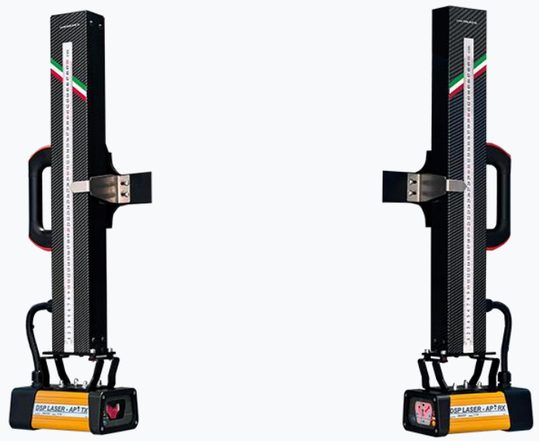
Assists the material path during multi-step bending work.

03 **LED Bar**

Real-time positioning guidance linked to the backgauge.

Safety is a purchase-order item.

Safeguarding and structural behaviour are configuration decisions—not late-stage accessories.



DSP AP+MCS LASER SAFETY PROTECTION

MACHINE INTEGRITY

Rear safety protection supports the safeguarding package.
The articulated connection between the frame and lower beam is designed to distribute load points during eccentric bending.

IMPORT ORDER LOCK

Confirm guarding scope, electrical standard, applicable safety documentation and acceptance criteria before issuing the purchase order.

Dimensions, working area & weight.

Supplied KLD model data. Final model, tooling, working area, electrical and option specification must be confirmed in writing.

MODEL DATA SHOWN: 600–2200 kN / 2100–6100 mm USABLE LENGTH / ALL DIMENSIONS IN mm UNLESS NOTED

Force (kN)	Length (mm)	Frame span (mm)	Throat (mm)	Daylight (mm)	Weight (t)
600	2100	1600	265	400	5.0
600	2600	2100	265	400	5.6
1100	3100	2600	320	450	8.5
1100	4100	3600	320	450	10.5
1700	3100	2600	320	470	11.5
1700	4100	3600	320	470	14.0
2200	3100	2600	460	500	12.0
2200	4100	3600	460	500	14.0
2200	6100	5600	460	500	25.0

KLD SUPPLIED PRODUCT DATA. VERIFY FINAL SCOPE AT ORDER.

K-APEX / ORDER HANDOFF

Specify.
Verify. Proceed.

Send a concise production brief to receive a configuration proposal matched to your market and part family.

INCLUDE IN YOUR ENQUIRY

Part drawings and material range
Target bending force and working length
Control, axes, backgauge and crowning preference
Tooling, safety, voltage, documentation and acceptance scope

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