

VERTIRRAM

GANTRY TYPE VERTICAL MACHINING CENTERS



The range of **VERTIRAM** machining centers consists of five basic models with clearance between columns from 201" to 280", maximum clearance under spindle from 157" to 197", X axis gantry stroke starting from 394" and Z axis ram stroke of 79" or 98"









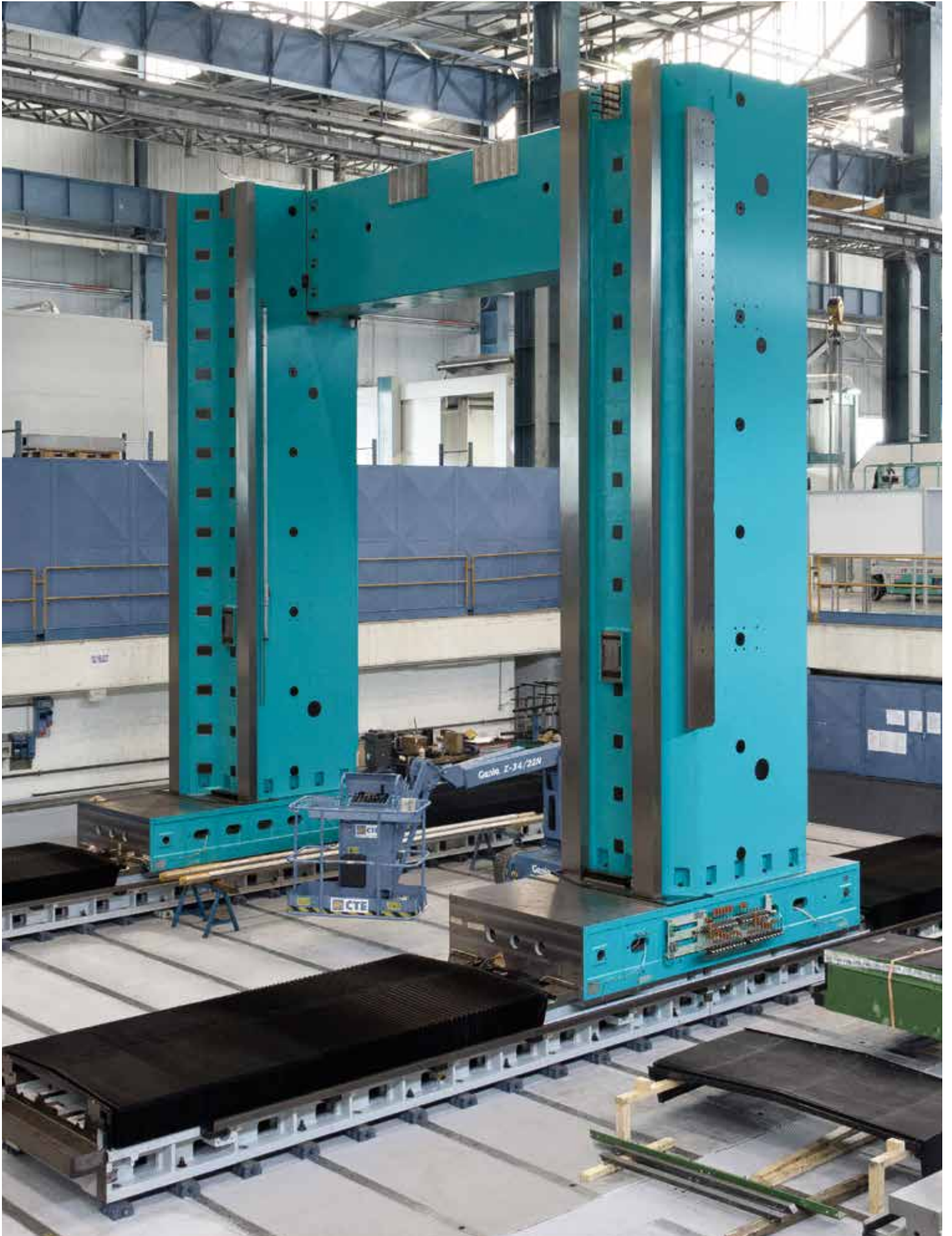
STRUCTURAL FEATURES

VERTIRAM gantry type vertical machining centers complement PAMA product range offering a machine suitable for the machining of large and heavy prismatic parts whose machining is best performed with vertical spindle







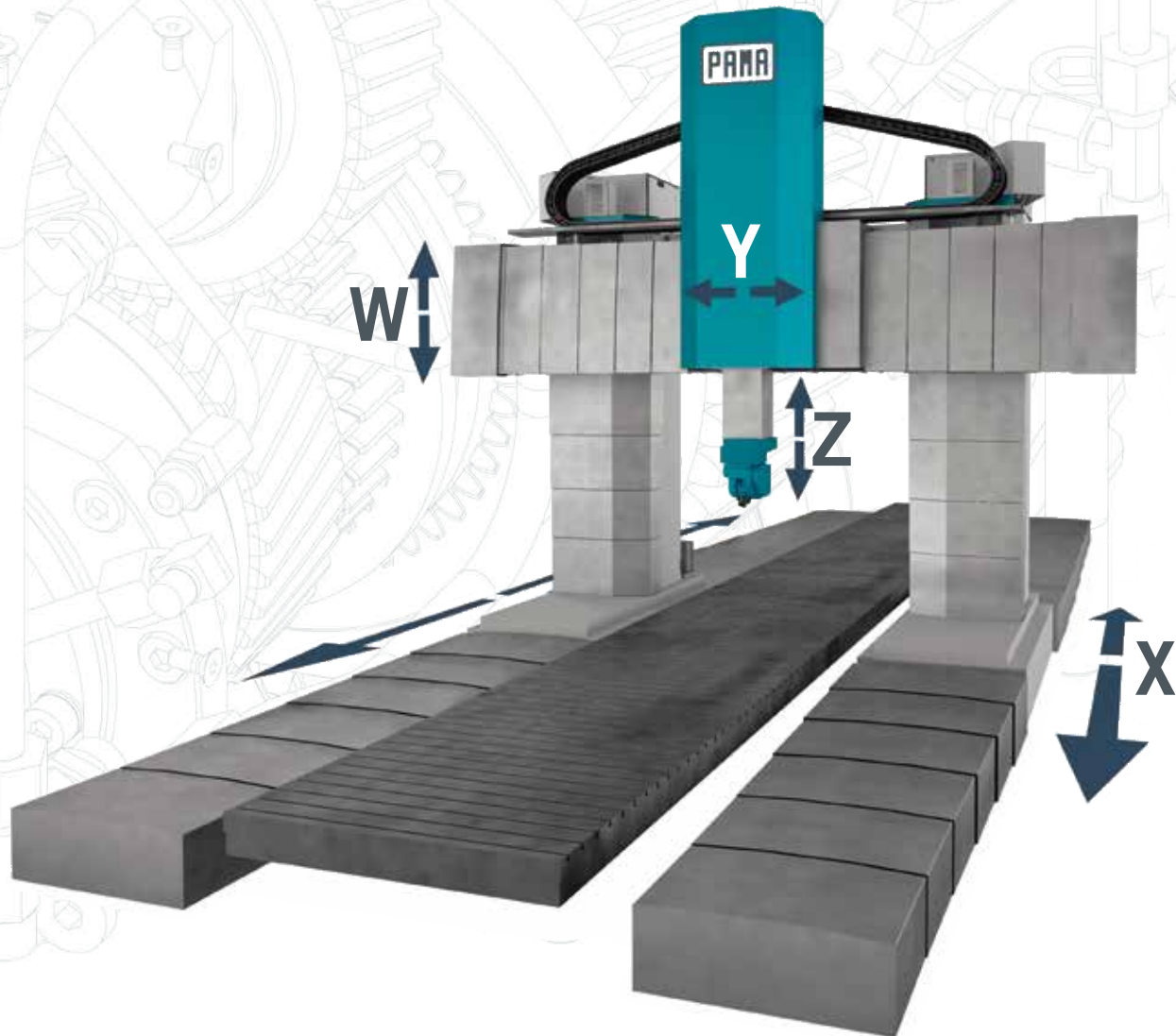




vertical ram fully enclosed in a monolithic headstock casting with hydrostatic support on all sides

TECHNICAL SOLUTIONS

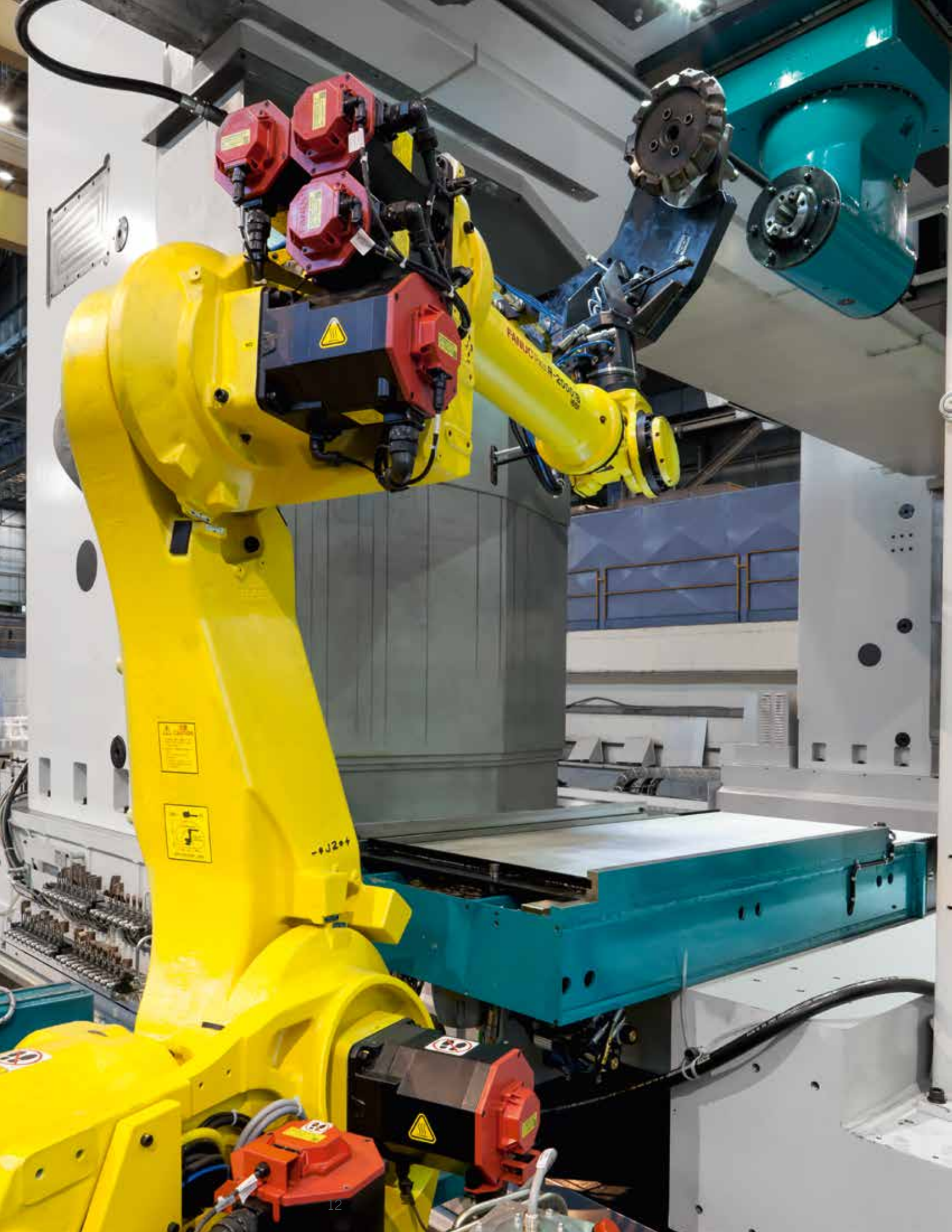
VERTIRAM, conceived to perform heavy cutting on cast iron, steel and titanium alloy, features superior machining accuracy, optimal spindle speed and axes feedrates, high automation and flexibility





VERTIRAM gantry type vertical machining centers with full hydrostatic guideways





TOOL MAGAZINES

VERTIRAM may be customized to meet specific requirements and satisfy nearly all demands in fields of application such as power generation, oil and gas, earthmoving, heavy mechanical engineering, shipbuilding, large diesel engines, aerospace

independent slide mounted robot with concurrent movement to x axis and servicing the floor mounted rack type tool magazine





chain type tool magazines, column side mounted, with capacity from 80 to 120 tools

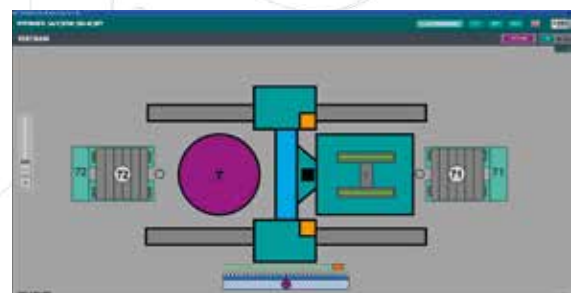
modular rack type tool magazines, floor mounted, featuring large capacity and limited floor space



TOOL MAGAZINES

the productivity of VERTIRAM gantry type vertical machining centers is further enhanced by a comprehensive range of tool magazine options

high level of automation is guaranteed by the availability of latest generation application software PR2 (Predictive Production Management) for the real time dynamic management of PAMA machining systems, even in unmanned production mode and for minimum size batches





HEAD ATTACHMENT CHANGER

the versatility of VERTIRAM machining centers is complemented by a wide range of head attachments, all capable of being automatically loaded and unloaded on the ram

automatic head attachment changers available in either floor or shuttle mounted configuration





milling head



right angle head

2 axes contouring head





boring and milling head



universal head with orthogonal axes

boring and milling head





SAFETY AND ERGONOMICS

safety and ergonomics of the working environment are guaranteed by fully enclosed operator platforms with safety glass windows and user-friendly control panels

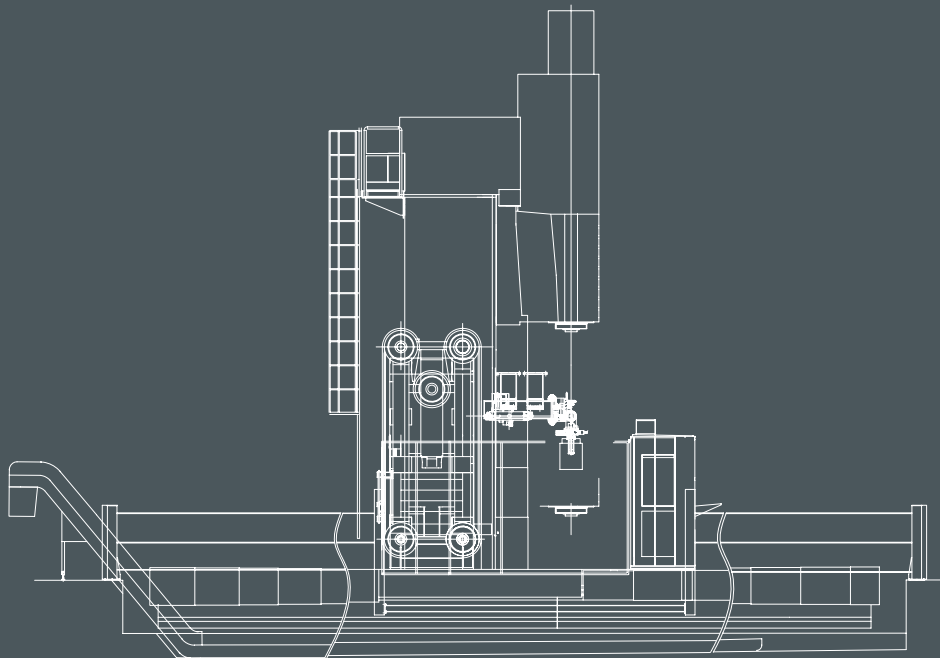
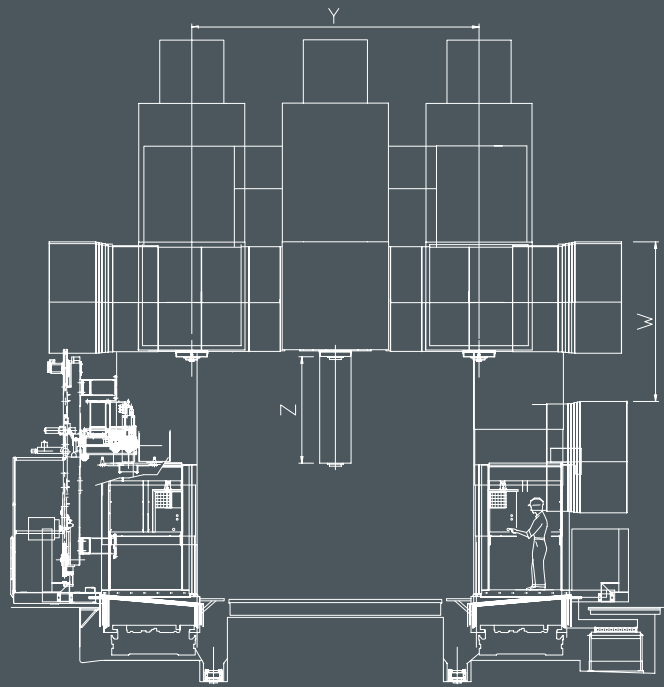
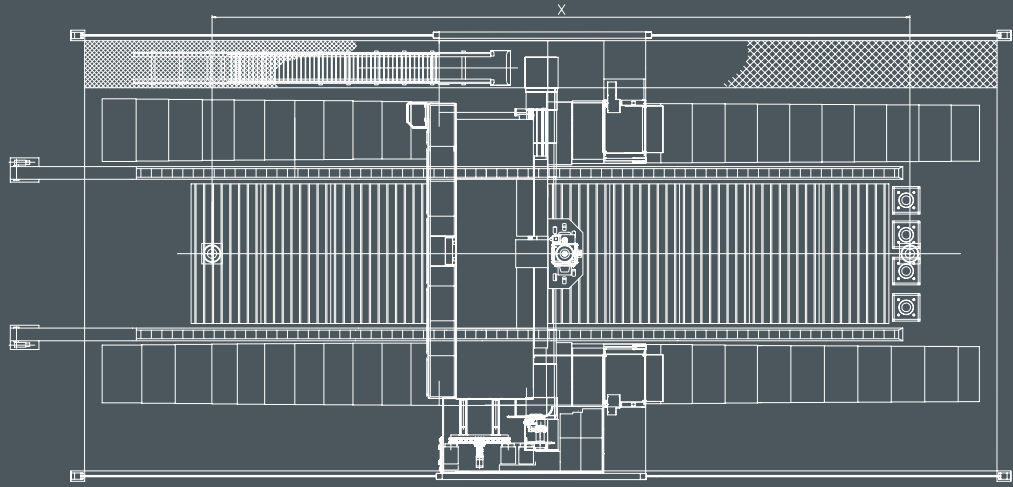


TECHNICAL SPECIFICATIONS

VERTIRAM product range includes models to match any application requirement in terms of size, power and choice of accessories, all sharing PAMA sound tradition and experience

VERTIRAM		5100	5600	6100	6600	7100
WORKING AREA						
Clearance between columns	in	201"	220"	240"	260"	280"
Max. clearance under spindle	in	157" - 197"	157" - 197"	157" - 197"	157" - 197"	157" - 197"
X axis (gantry)	in	394"	394"	394"	394"	394"
	in	+ N° x 39.37"	+ N° x 39.37"	+ N° x 39.37"	+ N° x 39.37"	+ N° x 39.37"
Y axis (headstock)	in	260"	280"	299"	319"	339"
Z axis (ram)	in	79" (98")*	79" (98")*	79" (98")*	79" (98")*	79" (98")*
W axis (crossrail)	in	102" - 142"	102" - 142"	102" - 142"	102" - 142"	102" - 142"
HEADSTOCK						
Ram section	in	23.2" x 23.2"	23.2" x 23.2"	23.2" x 23.2"	23.2" x 23.2"	23.2" x 23.2"
Max. spindle speed	rpm	4000	4000	4000	4000	4000
Spindle gear ranges		4	4	4	4	4
Max. spindle power (S1-100%)	HP	138	138	138	138	138
Max. spindle torque (S1-100%)	ft-lb	7914	7914	7914	7914	7914
Tool taper		CAT 50 / CAT 60 / HSK B125				
AXES RATES						
X axis feed / rapid	ipm	787"	787"	787"	787"	787"
Y and Z axes feed / rapid	ipm	984"	984"	984"	984"	984"
W axis feed / rapid	ipm	118"	118"	118"	118"	118"

* Z axis (ram) standard 79" - option 98"





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PAMA has a policy of continuous improvement of its products and reserves the right to change materials and specifications without notice.

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**COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= ISO 9001:2008 =**

