Offical Website

Global Sources

Website: www.xingdimc.com
Email: query@xingdimc.com

Personal Contact:
Gary Xu (Operational Director)
Mob:+86-18923114077 (Wechat)
Email: gary@xingdimc.com

Henan Xingdi Forging Equipment Manufacturing Co., Ltd
Add: West Mengzhuang Town, Huixian District, Xinxiang City, Henan Province, China
Tel: +86-373-6069777
Fax: +86-373-6063777
Foshan Nanhai Xingdi Machinery Manufacturing Co., Ltd
Add: Yuelisha Road, Hexi Village, Yanbu, Dali Town, Nanhai District, Foshan City, Guangdong Province, China
Tel: +86-757-81101768
Fax: +86-757-81101767

XINGDI MACHINERY

ADVANCED HYDRO-FORMING
TECHNOLOGY PACEMAKER

CONTENTS

ABOUT XINGDI MACHINERY 03

FRAME-TYPE INTERNAL HIGH-PRESSURE HYDRO-FORMING PRESS 05

SHEET METAL HYDRO-FORMING FORMING PRESS 07

METAL BELLOWS HYDRO-FORMING PRESS 09

PIPE JOINT HYDRO-FORMING PRESS 11

SERVO WATER BULGING HYDRO-FORMING PRESS 13

WATER BULGING HYDRO-FORMING PRESS 15

MULTI-STATION DEEP DRAWING HYDRAULIC PRESS 17

SERVO 4-POST DRAWING HYDRAULIC PRESS 19

METAL EXTRUSION HYDRAULIC PRESS 21

FRAME-TYPE FINE BLANKING HYDRAULIC PRESS 23

FRAME-TYPE HYDRAULIC PRESS 25

DOWN-ACTING 4-POST HYDRAULIC PRESS 27

UP-ACTING 4-POST HYDRAULIC PRESS 29

OIL COOLING DEVICE 31

INTERNATIONAL SERVICE NETWORK 33

Company Profile

Xingdi Machinery is a manufacturing company that has been committed to the design, development, production, sales and service of intelligent hydro-forming machinery and equipment, with its core technology as "Hydro-Forming Technology".

The company is equipped with a "Technology and Research Center for Internal High Pressure Hydro-forming Technology". Long-term cooperated research projects are carried out with college and institutions, such as the "Institute of metal research of Chinese Academy of Sciences", "Nanjing University of Aeronautics", etc., which has promoted the establishment of the model base for "Industrialization of Hydro-forming Technology".

Xingdi Machinery dominance in internal high-pressure hydro-forming press, water bulge hydro-forming press, pipe joint hydro-forming press, multi-station deep drawing hydraulic press, sheet material hydro-forming press, drawing hydraulic press, metal extrusion hydraulic press, frame-type hydraulic press and other equipments. Moreover, we able to meet customers' requirement to design and produce specialized nonstandard machines, customized oil cylinders, customized hydraulic systems as well as provide automation transmission systems.

The products are widely apply to the industry of aerospace, auto accessories, bicycle accessories, hardware and tools, instrument, kitchen ware, household appliances and stainless steel ware, etc.

Furthermore, with lead-edge technology at home and abroad, the company has been improving the brand's value of "Xingdi Machinery", as well as to create national brand in hydro-forming technology.

Over 20 Letter of Patents and the number is increasing by 2-5 per year

"Certificate of Conformity of Quality Management System Certification" - ISO90012008 Standard Certificate

Award "China Quality Brand of Forging Equipment Industry" – CCTV (China Central Television)

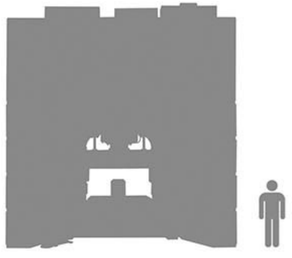
"Hydraulic Forming Technology Industrialization Model Base" – established by Xingdi Machinery & IMR, Chinese Academy of Sciences

"Technology and Research Center For Hydro-forming Intelligent Equipment" – found in 2015, authorization obtain in 2016; National New Hi-Tech Enterprise Rewarded in 2018

Frame-Type Internal High-Pressure Hydro-Forming Press

XD-THF

Our company was China's first manufacturer that launched intelligent internal high-pressure hydro-forming press to the market. It has supplied dozens of equipment with different specifications to customers from different fields. The mould clamping force and forming pressure of customized products range from 230T to 4,000T and from 150MPa to 500MPa respectively. In addition, we can design custom products according to customers' requirements with mould clamping force of 30000T and forming force of 500MPa.



Scale

Performances and Features

1)Full servo system and independently developed software platform combined with programmable HMI; adopts advanced PLC and functional modules controller, so as to enhance precision and stability. Spared output and input ports are used for manipulators and robots. Control programs can be modified according to different production requirements, so that to improve computability and productivity of equipment;

2)The displacement and propulsion velocity of side cylinders can be precisely controlled. The repetitive positioning precision of operation is ±0.15mm; the repetitive positioning precision of side cylinder is ±0.08mmand the precision of synchronization ⩽0.15mm. Furthermore, digital control and data acquisition can be implemented within the stroke in the whole process;

3)The intelligent HMI can independently input parameters of critical loading paths such as displacement, water pressure and velocity, etc. Besides, real-time feedbacks and data output of the loading path can be process. The comparison of actual and default loading path can be visualized displayed. When deviation exceeds the setting range, warnings will be displayed, so that process parameters can be easily notified and corrected;

4)The machine can be equipped with several punching circuits according to machining requirements of special parts, so as to implement hole punching function under hydro-forming;

5)Both master cylinder and pressurized cylinder equipped with limit switches to prevent over-limit operations. These machines also equipped with safety photoelectric protection device, motor circuit protectors and limit switches. It is fully protective with high safety factors;

6)The body frame structure adopts holistic steel casting frame structure which has high strength, good rigidity, less deformation, long life-span and low noise characteristics;

7)This machine has superior comprehensive performances: all major accessories are adopted imported name-brand and independently developed parts, thus to reduce maintenance rate, increase service life, ensure working accuracy;

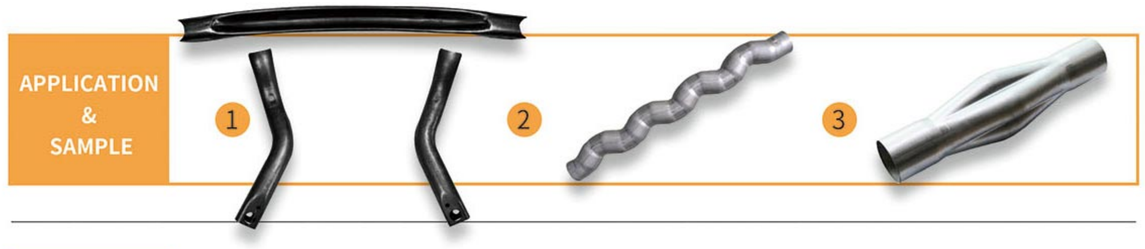
8) This is fully cover by independent intellectual property, for which an invention patent numbered ZL 201320060585.7 has been obtained.

Applications

This equipment is suitable for forming hollow components with various complicated shapes in fields of aerospace, nuclear power, petrochemical, water systems, automobiles and bicycles components manufacturing. The main products include hollow components, hollow shaft and camshaft components of engines, chassis components of automobile, metal pipes and pipe fittings with complex shape of intake/exhaust system.

Descriptions

Frame-type internal high-pressure hydro-forming press applies high-pressure hydro-forming technology. It is holistic steel casting frame structure, embedded with guide rails, so that resulting superior anti-offset load force. It able to ensure leak-proofness of 500MPa ultra-high pressure and its mould clamping force can be exceeded 10,000T. Combining with computer real-time feedbacks and control modules under ultra-high pressure, it can achieve one-time forming of hollow components with complex shapes and various composite tubular materials.



Items		Unit	XD-THF Series Frame-Type Internal High-Pressure Hydro-Forming Press Technical Parameters								
			XD-THF-600T	XD-THF-800T	XD-THF-1000T	XD-THF-1200T	XD-THF-1500T	XD-THF-2000T	XD-THF-2500T	XD-THF-3000T	XD-THF-4000T
Nominal Pressure of Master Cylinder		KN	6000	4000X2	10000	6000X2	15000	20000	12500X2	15000X2	20000X2
Max. Operating Pressure of Liquid of Master Cylinder		MPa	20	25	40	40	40	40	40	40	40
Max.Stroke of Master Cylinder		mm	500	400	500	400	500	500	500	500	500
Nominal Pressure of Side Cylinders		KN	800X2	2000X2	2000X2	2000X2	2000X2	2000X2	2500X2	2500X2	1000~40000
Max.Operating Pressure of Side Cylinders		MPa	20	25	24	25	25	25	25	25	25
Max. Stroke of Side Cylinders		mm	110	150	200	200	200	200	200	200	200
Shut Height		mm	1000	1060	1200	1060	950	1000	1130	1050	1310
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	200	170	95	170	180	180	180	180	180
	Work Progress	mm/s	8	7	4	7	14	9	9	9	9
	Return	mm/s	20	85	130	85	250	250	250	250	200
Max. Output Pressure of Pressurizer		MPa	80	250	250	250	250	250	250	250	250~500
Capacity of Pressure Cylinder		L	3	2	2	2	2	2	2	2	2
Stroke of Pressure Cylinder		mm	350	420	420	420	450	450	450	450	450
Effective Area of Workbench	Left & Right	mm	1800	1500	1800	1500	2000	2000	2500	3000	3500
	Fore & Rear	mm	1380	900	1200	900	1300	1500	1600	1700	2500
Motor Power		KW	Servo (35+11X2)+2.2+7.5	Servo (30+15X2)+2.2+3	Servo (30+15X2)+2.2+3	Servo (30+15X2)+2.2+3	Servo (45+15X2)+3+7.5	Servo (45+15X2)+3+7.5	Servo (45+15X2)+3+7.5	Servo (45+15X2)+3+7.5	Servo (45+15X2)+3+7.5

Sheet Metal Hydro-Forming Press

XD-SHF

XD-SHF sheet metal hydro-forming press is independently innovated and developed by our company with intellectual property right. It is an advanced product in China's market which used for precise hydro-forming of sheet metal based parts.

Performances and Features

1)Full servo system and independently developed software platform combined with programmable HMI; adopts advanced PLC and functional modules controller, so as to enhance precision and stability. Spared output and input ports are used for manipulators and robots. Control programs can be modified according to different production requirements, so that to improve computability and productivity of equipment;

2)Servo systems have advantages such as: high efficiency, high precision, energy saving and noise reduction (reduce 15dB of noise);

3)The edge-pressing and drawing cylinders are composited together in the master cylinder, allows independent operation and characterized by high precision and effectiveness;

4)A hydraulic cylinder (ancillary cylinder) is assembled under the workbench, cooperate with the master cylinder to implement dynamic change of edge-press force in different forming stage;

5)The cooperation of master cylinder and ancillary cylinder also allow using liquid as mould cavity to achieve hydrodynamic deep drawing process and using liquid as backpressure to prevent wrinkle and fracture during the production process;

6)The main high-pressure pipe use Germany made imported 320MPa ultrahigh pressure pipe which effectively guarantee the pressure stability, increase service life and lower the maintenance rate.

APPLICATION & SAMPLE

1 

2 

3 

Applications

Component parts manufactured by sheet metal hydro-forming press are characterized by small springback, high dimensional accuracy and good surface quality. Component parts are widely used in fields of aviation, aerospace, petroleum, nuclear power, automobile and large diesel engines. For instance, the equipment can manufacture frame parts of aircrafts, asymmetric staircase-type oil pan, automobile shock absorber tray and box shaped component parts.

Descriptions

For sheet metal hydro-forming press, liquid is used as force transfer medium in place of rigid terrace die or concave die, making billets closely attached to the mould cavity under the impacts of force transfer medium and finally form components with specific parameter or shape.

The equipment has three beams and four posts, and the edge-pressing cylinder and the drawing cylinder are integrated together. Master cylinder and auxiliary cylinder are used to cooperate with each other, for the purpose of precise and efficient forming of sheet metal parts with hard-to-deformed materials, complex shapes and high drawing ratio.

Advantages of Sheet Metal Hydro-Forming Technology

(A) Extensive applications and strong forming ability: sheet metal hydro-forming technology is especially suitable for materials with poor forming ability or high strength such as aluminum alloy, titanium alloy, stainless steel and composite materials that form high-strength low alloy steel;

(B) High forming accuracy: the forming accuracy is high and the surface quality is superior. Flexible medium is used in place of rigid dies to reduce defects of traditional deep drawing technologies like scratches of parts;

(C) Lower costs of moulds: only terrace die or concave die are necessary for sheet metal hydro-forming, and half of them are replaced by liquid medium, thus saving costs of moulds by over 30%. In addition, hydro-forming has low requirements for strengths of moulds, so that cheaper and low-strength moulds can be selected. Parts with different thickness or materials can be manufacture on the same mould so as to lower production costs of parts;
Superior quality and utilization of products: sheet metal hydro-forming technology improves product quality and significantly enhances product performances. Component parts produced by sheet metal hydro-forming press have advantages of lightweight, high strength, high rigidity, superior quality, high utilization ratio of materials, high dimensional accuracy, small springback and residual stress;

(D)

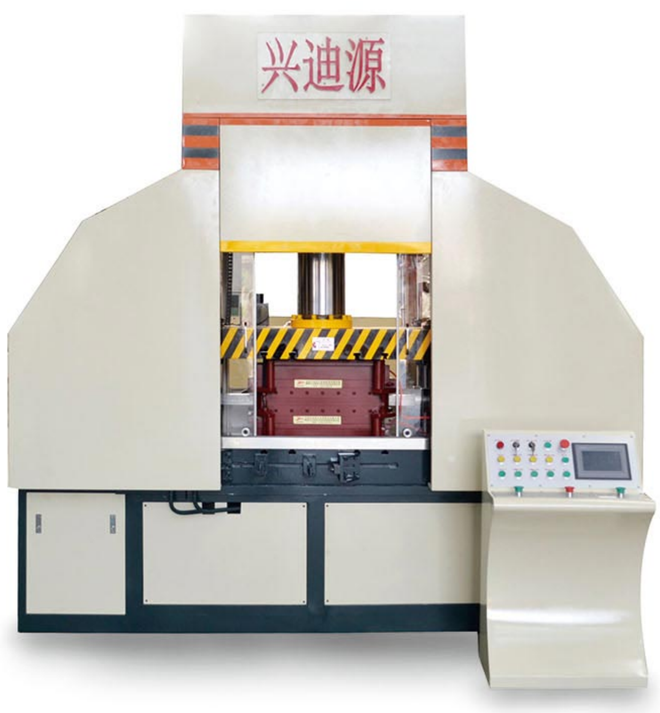
(E) Fewer forming processes: various parts can be produced by changing shapes of terrace die or concave die. By sheet metal hydro-forming technology, some parts with complex shapes can form through a single process. However, they can be only produced through several processes by traditional stamping or even unable to form by traditional stamping. Sheet metal hydro-forming considerably reduces forming processes and quantity of welding.

Items		XD-SHF Sheet Metal Hydro-Forming Forming Press Technical Parameters			
	Unit	XD-SHF-300T	XD-SHF-400T	XD-SHF-450T	XD-SHF-550T
Nominal Pressure of Master Cylinder	KN	2000	2500	3000	3500
Max.Operating Pressure of Liquid of Master Cylinder	MPa	25	25	25	25
Nominal Pressure of Edge-Pressing Cylinder	KN	1000	1500	1500	2000
Max.Stroke of Master Cylinder	mm	650	650	650	650
Max.Stroke of Edge-Pressing Cylinder	mm	500	500	500	500
Shut Height	mm	950	950	950	950
The Speed of Drawing Cylinder and Edge-Pressing Cylinder — Rapid Down	mm/s	250	250	250	250
The Speed of Drawing Cylinder and Edge-Pressing Cylinder — Work Progress	mm/s	10	10	10	10
The Speed of Drawing Cylinder and Edge-Pressing Cylinder — Return	mm/s	250	250	250	250
Effective Area of Workbench — Left & Right	mm	950	1010	1050	1120
Effective Area of Workbench — Fore & Rear	mm	810	870	910	975
Motor Power	KW	18.5+3	22+3	27+5.5	27+5.5

Metal Bellows Hydro-Forming Press

XD-Y62

Metal bellows hydro-forming press is a new-generation product with intellectual property right which is independently developed by our company. It is applicable to metal bellows forming process.



Performances and Features

1)By applying FEA (finite element analysis), loading paths such as displacement, pressure, speed and flux are preliminarily determined. Setting loading paths according to different production process in order to achieve production automation and increase productivity;

2)The equipment demonstrates a high forming precision for metal corrugated pipe. The consistency of the peak and pitch of waves are relatively high, also the radial dimensional deviation can be accurately controlled in between 0.05mm and 0.1mm;

3)Mould is designed in horizontal structure, which simplified loading and unloading process, so as to facilitate the forming process. With high structural precision, forming sharp angles and small gaps between peaks of metal corrugated pipe is allowed. Every forming process able to produce several metal bellows uses only one mould, so as to increase productivity and efficiency;

4)Combining metal bellows hydro-forming process with pipe-end trimming process together, so as to omit procurement of special pipe-end forming equipments, thus reducing equipment and labor costs;

5)Fast lever is equipped in this equipment, which possess with unloaded fast mode and mould closed slow mode, so that to reduce the duration of no-load stroke;

6)The equipment is equipped with security door which adopts impact-resistant PMMA material to prevent high-pressure splash liquids and ensure safety of operators;

7)Unique appearances, compact structure and appropriate layout improve overall appearance of the equipment. It is consist of body frame, master cylinder, pressurized cylinder, side cylinder, hydraulic power mechanism and electrical control devices. The equipment has good rigidity and high operation precision features.

Applications

Metal bellows, as a kind of compensating components for pipes systems, are widely used in fields of aerospace, electric power, petrochemical, automobile, heat supply system, steel forging, bridges construction, urban construction, instrument, metallurgy and shipbuilding. Metal corrugated pipe allows axial or angular variation on piping systems or equipment, so as to compensate pipe displacement cause by temperature effects. For instance, assemble metal bellows on a pipeline system can effectively compensate thermal expansion, reduce expansion and vibration. Metal corrugated pipe also play a significant role in liquid transportation system of petroleum field, oil depot, and chemical plant.

Descriptions

Metal bellows hydro-forming press implements corrugation one-time forming in mould cavity by internal pressurization of tube material and axial compression to achieve material feeding. Uniform bulging force is the most distinguish feature, which allows materials deformation under optimal condition. Compare to traditional process, hydro-forming process can remarkably increase productivity and efficiency. This equipment is suitable for metal bellows forming with various specifications.

APPLICATION & SAMPLE

Items		XD-Y62 Series Metal Bellows Hydro-Forming Press Technical Parameters		
		Unit	XD-Y62-100T	XD-Y62-300T
Nominal Pressure of Master Cylinder		KN	1000	2000
Max. Operating Pressure of Liquid of Master Cylinder		MPa	20	20
Return Force of Master Cylinder		KN	100	200
Nominal Pressure of Side Cylinders		KN	300×2	400×2
Max.Stroke of Master Cylinder		mm	300	450
Max.Stroke of side of the cylinders		mm	150	250
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	260	200
	Work Progress	mm/s	20	25
	Return	mm/s	250	250
Shut Height	Max.	mm	700	800
	Max.	mm	400	400
Height Between The Center of Side Cylinder and Workbench		mm	200	250
Max. Distance Between The Side Cylinders		mm	800	900
Effective Area of Workbench		mm	1000×600	1200×800
Nominal Pressure of Pressure Cylinder		KN	250	1000
Stroke of Pressure Cylinder		mm	270	350
Max. Output Pressure of Pressurizer		MPa	60	100
Motor Power		KW	15+5.5	22+7.5

Pipe Joint Hydro-Forming Press

XD-YB61

These equipment apply hydro-forming technology to form pipe joints from metal tube such as: three-way pipe, four-way pipe, T-type pipe, Y-type pipe, L-type pipe and other complex shape tubular components. The technical principle is using liquid as deformation media, employ axial direction feeding, radial direction reverse thrust and internal pressurization to make tubular material closely fit to the mould cavity and form shapes.

Performances and Features

1)Elementary FEA (finite element analysis) able to confirm displacement, pressure, speed, flux and other loading paths. Accurately setting the equipment according to different product forming process, which can easily achieve automatic production and so that increase productivity;

2)During "ultra-high pressure" status, the sealing of the pushing head and the tube material can be controlled between 0.1mm and 0.2mm, ensured the leakproofness and the stability of feeding;

3)Internal pressure and displacement of oil cylinders are adopt closed-loop servo controlled. A high precision displacement sensor is equipped in oil cylinders to give real-time feedback about the position of cylinders to the control system, so that to accurately adjust pressure and flux by the servo system;

4)The internal pressure can be automatically adjusted, so as to achieve pressure maintain, pressure stabilize and backflow functions, which effectively improves the accuracy of pressure control;

5)Side cylinders used for forming height and thickness reduction rate control during the process. Taking advantage of proportional valves flexible, a constant back pressure is provided for forming according to processing routes. Accurately used in combination with axial feeding and internal liquid pressurization, the height of multi-way pipe can be maximized;

6)One production cycle time usually takes 15~20s, the speed of master cylinder during no-load descend mode reaches 250mm/s, the daily productivity will achieve 1800~200pcs;

7)The equipment has extraordinary appearance, compact structure and reasonable layout. The synchronous cylinders, oil pipes and positioning systems are sealed inside protective housings to make the equipment generally look beautiful and reduce safety hazards;

8)Compared with traditional equipment which use series-connected synchronous oil cylinder, this equipment has two servo motors for controlling thrust cylinders on both side to effectively control forming accuracy, solve the problem of poor synchronization between cylinders, so as to achieve multi-way pipes forming with different length on both sides and increase the productivity.

Applications

XD-YB61 pipe joint hydro-forming press is especially suitable for one-time hydro-forming of three-way pipe, four-way pipe, T-type pipe, Y-type pipe, L-type pipe and other complex shape tubular components made of red copper, bronze, stainless steel, aluminum alloy and composite materials. Instead of traditional plastic bulging, lead bulging, stamping and welding process, hydro-forming characterized high forming efficiency, high precision and good quality of product surface advantages. Typical products include aluminium and stainless steel pipe joint fittings, pipe fittings for bicycle, pipe adaptor of car engines, water pipeline, pipe fittings for refrigeration systems and kitchen/bathroom appliance.

Descriptions

Pipe joint hydro-forming press is suitable for multi-way pipe fittings forming industry. Generally, metal pipe is used as billets, and the equipment exerts high pressure upon liquids inside the pipe cavity along with the axis feeding and radial reverse thrust. By making plastic deformation of pipe occurred in the given mould cavity and the material gradually attached to the inner surface of mould, which achieve forming of multi-way pipe with required shapes and dimensions.

APPLICATION & SAMPLE

Items		XD-YB61 Series Pipe Joint Hydro-Forming Press Technical Parameters		
		Unit	XD-YB61-200T	XD-YB61-300T
Nominal Pressure of Master Cylinder		KN	1000	2000
Max. Operating Pressure of Liquid of Master Cylinder		MPa	20	20
Return Force of Master Cylinder		KN	100	200
Nominal Pressure of Side Cylinders		KN	300×2	400×2
Nominal Pressure of Lower Cylinder		KN	150	200
Max. Stroke of Master Cylinder		mm	400	450
Max.Stroke of side of the cylinders		mm	220	250
Stroke of Lower Cylinder		mm	220	250
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	220	200
	Work Progress	mm/s	25	25
	Reversal	mm/s	250	250
Shut Height	Max.	mm	800	850
	Min.	mm	400	400
Height Between The Center of Side Cylinder and Workbench		mm	200	250
Max. Distance Between The Side Cylinders		mm	800	900
Effective Area of Workbench		mm	700×800	800×900
Nominal Pressure of Pressure Cylinder		KN	1000	1000
Stroke of Pressure Cylinder		mm	300	350
Max. Output Pressure of Pressurizer		MPa	80-100	100-150
Motor Power		KW	15+5.5×2	22+7.5×2

Servo Water Bulging Hydro-Forming Press

XD-Y63-S

Servo water bulging hydro-forming press is apply hydro-forming process by using liquid(water, emulsion or oil) as the power transmission medium to make hollow parts or tubular billets expand from the inside out and fitted to mould cavity closely, so that to achieve deformation of components with complex surface/shape under precise control of servo system and characterized by precise control of forming pressure and good consistency of final product.

Performances and Features

1) Adopt closed-loop servo controlled, able to achieve real-time control of pressure and speed; automatic power distribution can also be achieved during the working process. Therefore, the equipment featured precise control and short response time superiorities. Compare with traditional electrical control using servo system can reduce the energy consumption by 20%;

2) Hydraulic system is controlled by servo motor, thus the oil temperature can be lower down effectively, energy consumption can be reduced and guaranteeing the operational stability of the equipment;

3) The speed of descends and returns stroke of the moving beam reach 10~250mm/s. During the working process, the speed can be controlled within 1mm/s to 10mm/s. Movement is precise and shorten the time of unnecessary no-load strokes;

4) The equipment is equipped with HMI control system, parameters such as descending speed, forming speed, forming pressure and pressure maintain time can be easily set/adjust. Therefore, the equipment has advantages of high precision controls and good product consistency.

Applications

Servo water bulging hydro-forming press is mainly applicable to hollow tubular components with complex surface/shape using hydro-forming process, including: stainless steel, copper, aluminium and iron vacuum flasks, water bottle, kettles, other tableware, vessels, stair handrails and decoration pipe fittings. In place of traditional rubber expansion technique, hydro-forming process characterized by high production efficiency, superior performance, accurate control, safety and reliability.

Descriptions

The servo water bulging hydro-forming press forming hollow components or tube billets with high-pressure liquids, making material closely attached to the mould cavity and form components with specific parameter or shape. In the case of working process, liquid injected to the vertical tube through the workbench and redundant air will be removed from the top. Finally, the master cylinder will accomplish axial feeding and form required shape.

APPLICATION & SAMPLE

Items		Unit	XD-Y63-S Series Servo Water Bulging Hydro-Forming Press Technical Parameters				
			XD-Y63-150S	XD-Y63-200S	XD-Y63-250S	XD-Y63-300S	XD-Y63-400S
Nominal Pressure of Master Cylinder		KN	750	1000	1250	1500	2250
Max.Operating Pressure of Liquid of Master Cylinder		MPa	20	20	20	20	20
Max.Stroke of Master Cylinder		mm	700	720	750	800	1000
Shut Height		mm	1500	1500	1500	1500	1500
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	10~300	10~300	10~300	10~300	10~250
	Work Progress	mm/s	1~30	1~30	1~25	1~25	1~25
	Return	mm/s	10~300	10~300	10~300	10~300	10~280
Effective Area of Workbench		mm	540×500	600×600	600×600	600×650	750×750
Nominal Force of Pushing Cylinder		KN	30	60	90	100	100
Stroke of Pushing Cylinder		mm	200	250	250	250	250
Area of Movable Workbench		mm	500×380	600×450	600×450	650×510	700×700
Nominal Pressure of Pressure Cylinder		KN	750	1000	1250	1500	1750
Stroke of Pressure Cylinder		mm	300	350	350	350	350
Capacity of Pressurizer		L	2~3	2~3	2~3	1.5~2.5	1.5~2.5
Max.Output Pressure of Pressurizer		MPa	0-50	0-60	0-80 / 0-100	0-80 / 0-100	0-80 / 0-150
External Dimension		mm	2440×1450×3500	2560×1880×3500	2660×1880×3500	2750×1880×3600	2850×1950×3800
Net Weight		T	4	5	5.5	7	10.5
Motor Power		KW	Servo18.5+5.5	Servo25+5.5	Servo30+7.5	Servo37+7.5	Servo45+7.5

Water Bulging Hydro-Forming Press

XD-Y63

Water bulging hydro-forming press is apply hydro-forming process by using liquid(water, emulsion or oil) as the power transmission medium to make hollow tubular billets expand outward. Components with complex surface/shape is formed under precise control of servo system and characterized by precise forming pressure and good consistency product.

Performances and Features

1) The machine equipped with independent rapid low-pressure liquid injection system. In the case of master cylinder descending, the air can be discharge rapidly from the mould cavities and fully filled with liquid. After mould closed, an air-free low-pressure chamber is generated, which is benefit for high-pressure liquid injected by the pressurizer, thereby shorten the time usage of forming process;

2) Siemens energy-saving motor is used as master motor, with advantages of large start-up torque, low noise, long service life and low energy consumption;

3) The machine is vertical structured. The opening height is 1500mm which is suitable for products with 600mm height. In addition, customized order according to different product is accepted(For more details please refer to the corresponding parameters table);

4) The speed of descends and returns of the moving beam reach 10~250mm/s. During the working process, the speed can be controlled within 1mm/s to 10mm/s. Movement is precise and shorten the time of unnecessary idle strokes.

Applications

Water bulging hydro-forming press is mainly applicable to-manufacture hollow tubular components with complex surface/shape using hydro-forming process, including: stainless steel, copper, aluminium and iron vacuum flasks, water bottle, kettles, other tableware, vessels, stair handrails and table legs. In place of traditional rubber expansion technique, hydro-forming process characterized by high production efficiency, superior performances, accurate control, safety and reliability.

Descriptions

Water bulging hydro-forming press forming hollow components or tube billets with high-pressure liquids, making material closely attached to the mould cavity and form components with specific parameter or shape. In the case of working process, liquid injected to the vertical tube through the workbench and redundant air will be removed from the top of mould. Finally, the master cylinder will accomplish axial feeding and form required shape. On account of large capacity of pressurizer, the speed shift is fast, forming cycle is short and thus increase production efficiency.

APPLICATION & SAMPLE

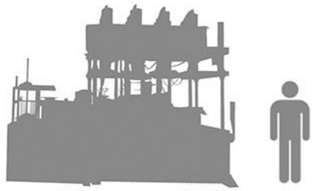
XD-Y63 Series Water Bulging Hydro-Forming Press Technical Parameters

Items		Unit	XD-Y63-150T	XD-Y63-200T	XD-Y63-250T	XD-Y63-300T	XD-Y63-400T
Nominal Pressure of Master Cylinder		KN	750	1000	1250	1500	2250
Max.Operating Pressure of Liquid of Master Cylinder		MPa	20	20	20	20	20
Max.Stroke of Master Cylinder		mm	700	720	750	800	1000
Shut Height		mm	1500	1500	1500	1500	1500
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	300	300	300	300	250
	Work Progress	mm/s	30	30	25	25	25
	Return	mm/s	300	300	300	300	280
Effective Area of Workbench		mm	540×500	600×600	600×600	600×650	750×750
Nominal Force of Pushing Cylinder		KN	30	60	90	100	100
Stroke of Pushing Cylinder		mm	200	250	250	250	250
Area of Movable Workbench		mm	500×380	600×450	600×450	650×510	700×700
Nominal Pressure of Pressure Cylinder		KN	750	1000	1250	1500	1750
Stroke of Pressure Cylinder		mm	300	350	350	350	350
Capacity of Pressurizer		L	2.2~3	2.2~3	2.2~3	2~3	2~3
Max.Output Pressure of Pressurizer		MPa	50-100	60-120	60-120	80-150	80-150
External Dimension		mm	2440×1450×3500	2560×1880×3500	2660×1880×3500	2750×1880×3600	2850×1950×3800
Net Weight		T	4	5	5.5	7	10.5
Motor Power		KW	11+5.5	18.5+5.5	22+5.5	30+7.5	37+7.5

Multi-Station Deep Drawing Hydraulic Press

XD-YDL

YDL series multi-station deep drawing hydraulic press is independently innovated and developed by our company which has intellectual property right. Our company overturns the concept of traditional single-movement 4-post sheet metal hydraulic drawing press: improved a single set of equipment into several sets multi-station equipment which modified traditional 4-post hydraulic drawing press to an integration of 3-post or 2-post equipment, so that several drawing processes can be performed within one single drawing press.



Scale

Performances and Features

1）The number of workstations is determined according to requirement of product as well as the number of drawing process needed. Two or more workstations can be integrated for personalized customization. Take 6-workstations for example, they can be successively used for shallow drawing→secondary drawing→tertiary drawing→primary trimming →secondary trimming→edge cutting and burring;

2）Compared with traditional deep drawing technologies, this equipment able to equipped with robot and form an automatic production line, which will greatly increase production efficiency by 30% to 40%, save human resources and reduce labor intensity;

3）The equipment is especially suitable for machining parts through several processes, efficiently avoid unnecessary losses of traditional technologies (e.g. unloading, storage, transport and repositioning of semi-finished work pieces), effectively solving secondary problems (including material properties transformation cause by long production cycle of semi-finished products, secondary corrosion and pollution) and shortening the multi-process production cycle of parts;

4）Fully adopt servo system controlled, equipped with a servo motor which shift between fast and slow speed smoothly. This is characterized by high efficiency, high precision, energy conservation (saving energy by 40% to 60%) and low noise;

5）Under PLC "Bus Control" and give immediate feedbacks to HMI so that to achieve independent workstation work with different motion. In addition, the position accuracy and status of each workstation can be diagnosed through PLC and visually displayed on HMI for the convenience of error elimination and machine maintenance;

6）According to different product requirement, the machine can designed with robot arms, automatic feeding and sorting systems, CNC shearing machine, CNC stamping machine, etc.

Applications

Multi-station deep drawing hydraulic press is applicable to various industry fields, including: automobile, motorcycles, hardware and tools, stainless steel products, metal vessels and kitchen appliances, especially suitable for automatic production lines of component parts through several processes. More specifically, main products including: automobile filter, air compressor filters, filters for chemical products, inner container of household appliances and kitchen wares, non-stick cookware, motor housings, kitchen ventilator housings and disinfection cabinet housings.

Descriptions

Multi-station deep drawing hydraulic press overturns the concept of traditional single-movement 4-post sheet metal hydraulic drawing press, which effectively save floor space and human resource. With the installation of robot arms, automatic production line able to achieve many processes, such as: oil coating, loading, deep drawing, workstation switching and product taking, etc. These characterized by effectively save human resources, reduce labor intensity and increase productivity.

APPLICATION & SAMPLE

Items		XD-YDL Series Multi-Station Deep Drawing Hydraulic Press Technical Parameters				
	Unit	XD-YDL2	XD-YDL3	XD-YDL4	XD-YDL4	XD-YDL5
Nominal Pressure of Master Cylinder	KN	900/500	200/200/200	800/500/450/300	1000/800/650/400	650/400/200/200/200
Max.Operating Pressure of Liquid of Master Cylinder	KPa	20	20	20	20	20
Center Distance of Master Cylinder	mm	700	500	700	600	500
Return Force of Master Cylinder	KN	60/50	40	60/50/50/40	80/60/50/40	50/40/40/40/40
Nominal Pressure of Edge-Pressing Cylinder	KN	400/250	150/150/150	400/150/200/150	500/400/350/250	350/250/150/150/150
Stroke of Edge-Pressing Cylinder	mm	250	400	300	300	400
Operating Pressure of Hydraulic System	MPa	20	20	20	20	20
Nominal Force of Pushing Cylinder	KN	15/12	10/10/10/10	15/12/12/10	15/12/12/10	12/10/10/10/10
Stroke of Pushing Cylinder	mm	200	200	300	180	180
Stroke of Master Cylinder	mm	550	600	600	600	900
Shut Height Max.	mm	850	900	1000	1000	1300
Shut Height Min.	mm	300	300	400	400	400
Vertical Speed of Moveable Crossbeam Rapid Down	mm/s	280/300	300	300	300	300
Vertical Speed of Moveable Crossbeam Work Progress	mm/s	30/40	60	40/40/40/40	30/40/40/40	30/40/40/40/40
Vertical Speed of Moveable Crossbeam Return	mm/s	320/350	350	350	350	350
Effective Area of Each Station	mm	610×600	435×750	600×720	600×750	435×750
Motor Power	KW	15/7.5	7.5/7.5/7.5	15/11/11/5.5	15/15/11/7.5	11/11/7.5/7.5/7.5

Servo 4-Post Drawing Hydraulic Press

XD-Y28

Drawing hydraulic press able to form sheet material or open-ended hollow billets into container-shaped components. It is specially designed for industries of aluminum alloy, carbon steel and stainless steel products and mainly applicable to metal and plastic materials press forming process, including deep drawing, edge folding, stamping, forming and straightening.

Performances and Features

1) The master cylinder adopt piston-type master-slave structure, embedded with fast lever to control rapid descending, thereby effectively minimize the redundant time of no-load descend and return stroke by 10% of normal hydraulic drawing press;

2) The equipment good at reverse-drawing technique, which characterized by effectively reduce mould cost and mould structure simplification, especially applicable for ultra-thin sheet material deep drawing process;

3) The use of closed-loop servo system control allows real-time adjustment of blank holder force, as well as ensure uniform blank holder force and the consistency and precision of products;

4) The equipment is applicable for material of stainless steel, carbon steel, copper, aluminum sheets and composite materials with minimum thickness ⩽0.2mm to maximum thickness ⩾5mm and maximum diameter of 2000mm;

5) The guide sleeve of posts are designed and manufactured with the patent of our company numbered ZL 201320060553.7.

Applications

The equipment is specially designed and manufactured for industries of aluminum alloy, titanium alloy, copper, stainless steel, carbon steel and thin iron products. It is especially suitable for deep drawing of thin metal sheets and press forming of stainless steel sheet material, including: aluminum alloy/stainless steel kitchen wares, punching/stamping, edge folding and deep drawing process of household appliances, shock absorber of automobiles, engine oil pan, etc.

Descriptions

Servo 4-post drawing hydraulic press adopt closed-loop servo system control, enable dynamic automatic adjustment which is especially suitable for ultra-thin sheet material deep drawing process and manufacture components with high forming limit and quality requirement.

APPLICATION & SAMPLE

XD-Y28 Series Servo 4-Post Drawing Hydraulic Press Technical Parameters

Items		Unit	XD-Y28-45T	XD-Y28-75T	XD-Y28-100T	XD-Y28-130T	XD-Y28-160T	XD-Y28-200T	XD-Y28-250T	XD-Y28-350T	XD-Y28-500T	XD-Y28-800T	XD-Y28-1000T
Nominal Pressure of Master Cylinder		KN	250	500	650	900	1100	1500	1700	2350	3350	5500	7000
Max. Operating Pressure of Liquid of Master Cylinder		MPa	19	20	20	20	20	20	20	20	20	20	20
Return Force of Master Cylinder		KN	40	40	50	60	60	70	70	80	100	150	200
Nominal Pressure of Lower Cylinder		KN	100	250	350	400	500	700	800	1150	1650	2500	3000
Max. Operating Pressure of Lower Cylinder		MPa	19	20	20	20	20	20	20	20	21	21	22
Nominal Force of Pushing Cylinder		KN	10	10	12	12	15	50	50	50	50	80	100
Stroke of Master Cylinder		mm	600	500	500	550	550	600	650	650	650	650	650
Stroke of Lower Cylinder		mm	300	220	250	275	250	285	300	325	325	325	325
Stroke of Pushing Cylinder		mm	200	200	220	220	220	220	220	250	250	250	250
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	300	280	300	250	250	200	200	200	200	180	180
	Work Progress	mm/s	40	40	40	40	40	30	23	25	25	20	20
	Return	mm/s	350	300	350	300	280	280	280	260	250	250	250
Shut Height	Max.	mm	1000	800	800	850	850	950	1000	1000	1000	1100	1250
	Min.	mm	400	300	300	300	300	350	350	350	400	450	600
Upward Velocity of Lower Cylinder		mm/s	77	65	65	65	60	70	70	70	70	70	70
Effective Area of Workbench		mm	390×450	490×550	600×550	650×600	750×700	800×700	800×750	1000×800	1000×900	1100×950	1100×1000
Motor Power		mm	7.5	7.5	11	15	15	18.5	22	30	37	45	55
External Dimension		KW	1540×1000×2540	1550×1030×3100	1740×1200×3150	1800×1210×3250	1880×1350×3500	1930×1650×3550	1930×1650×3550	1900×1700×4200	2100×1700×4300	2300×1800×4500	2450×1800×4800

Metal Extrusion Hydraulic Press

XD-Y61

Metal extrusion is a technology that makes metal material to generate plastic deformation and shaped metal parts in a particular temperature: placing metal billets in mould cavity, exert force towards the metal billet and finally shape component parts.

Performances and Features

1.Adopt contactless relay controlling output so that shorten the system response time and extend service life, also eliminate the reaction lag of electrical elements resulting from residual magnetism of conventional relay;
2.Adopt PLC for system control, the loading path of forming process can easily adjust and monitored by intelligent HMI;
3.Oil cylinders are adopt holistic steel casting technique which has advantages of high strength and impact resistance. Cylinder block applied precision grinding machining process, which characterized by good surface smoothness and reliability;
4.The equipment adopts double-speed mode, master cylinder adopt piston-type master-slave structure which effectively minimize the redundant time of cylinder descending and achieve fast forming. Therefore, the equipment characterized by low power consumption and closing mould with fast speed while no-load;
5.All three beams are finished by CNC precise machining. The length of guide sleeves is extended twice longer than normal equipment, thereby possess with strong anti-offset load force, high rigidity and high precision advantages.

Applications

The equipment is applicable to metal forming, including forming, upsetting, stretching swaging, bearizing and bending process of bearings, flanges and gears. It is especially suitable for extrusion and forging process of aluminum products, as well as stamping, forming, shallow drawing and trimming of metal or non-metal components. Covering manufacturing industry fields including: aerospace, automobile, motorcycle, transmission systems, tableware, hardware and tools, agricultural machinery, metal scutcheon, lockset and jewelry accessory.

Descriptions

Metal extrusion hydraulic press is an equipment that implement metal extrusion/blanking process of metal forming. It is mainly applicable to metal extrusion and forging, for example: metal cogging and upsetting, stretching swaging, bearizing, bending, stamping, shallow drawing and trimming processes. The equipment is vertical structured, adopts high pressure liquid as main power source. The maximum operation pressure of master cylinder is controlled within 22MPa, possess with high precision, high material utilization, high productivity and high product rigidity features.

APPLICATION & SAMPLE

Items		XD-Y61 Series Metal Extrusion Hydraulic Press Technical Parameters						
		Unit	XD-Y61-100T	XD-Y61-200T	XD-Y61-300T	XD-Y61-500T	XD-Y61-650T	XD-Y61-800T	XD-Y61-1000T
Nominal Pressure of Master Cylinder		KN	1000	2000	3000	5000	6500	8000	10000
Max. Operating Pressure of Liquid of Master Cylinder		MPa	22	22	22	22	22	22	22
Return Force of Master Cylinder		KN	100	100	150	150	200	200	200
Max. Stroke of Master Cylinder		mm	150	250	400	500	500	500	500
Shut Height		mm	500	700	800	900	900	1000	1000
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	250	250	250	200	200	200	200
	Work Progress	mm/s	8/16	12/24	12/24	10/20	8/16	6/12	6/12
	Return	mm/s	280	280	280	250	220	200	200
Nominal Pressure of Lower Cylinder		KN	150	200	300	400	500	500	600
Stroke of Lower Cylinder		mm	200	200	200	200	200	250	250
Effective Area of Workbench	Left & Right	mm	450	700	700	800	900	900	900
	Fore & Rear	mm	500	700	700	800	950	1000	1100
Motor Power		KW	11	15×2	18.5×2	22×2	30×2	37×2	45×2

Frame-Type Fine Blanking Hydraulic Press

XD-Y26

Fine blanking and punching processes are parts of separation technologies, which is a kind of precision machining technology developed on the basis of punching process. Fine blanking process involves a total of three forces, which distinguish this technology from other punching or cutting processes. Fine blanking creates smooth, quadrilateral, crack- and burr-free fine blanked surfaces, while the component itself is flat and level thanks to the clamping process. Additional finishing on the contours is generally not required.

Performances and Features

1)The equipment adopts holistic steel casting frame structure, characterized by good overall consistency, strong anti-offset load force, good stability. Using holistic steel casting frame structure can efficiently solve the problem of unbalance stress and increase of geometric error with the increase of working hours;

2)Applying precision blanking technology, directly take parts of products from original billets without any supporting process like polishing and deburring. Thus, its efficiency is 10 times higher than traditional process;

3)The equipment is controlled by four cylinders, edge pressing apply on the upper and lower surfaces of sheet billets. The ejector adopts hydraulically driven and controlled, with combination of overflow valve, constant opposite force can be precisely controlled;

4)Fine blanking hydraulic press separates material by plastic-shear forming which effectively restrains material tearing. The side gap is only 0.5% of the wall thickness. Under three forces applied, the plasticity of material can be effectively increased;

5)Adopts the newest inlaid composited anti-offset load special guide rail, which is partly embedded into the main frame of the equipment. Thus, reduce the lose efficacy of guide rail with the increase of working hour. The surface of guide rail is made of high quality copper plate, so as to effectively increase service life.

Applications

Fine blanking hydraulic press is especially suitable for manufacture components of automobiles, motorcycles, hardware and tools, electrical appliance using precision blanking process instead of traditional punching, machining, forging, casting and powder metallurgy. Main products including: chains and gears of bikes and motorcycles, gears of car seats, sector gears of doors, seat belt buckles and flanges.

Descriptions

Fine blanking hydraulic press is an equipment that applied precision press forming (blanking) technology. Once combine precision blanking and cold-forming (for instance: upsetting, hold stamping, punching and extruding, etc.) machining processes together, the equipment has remarkable superiority on manufacturing massive quantity of components with complex geometry shape, three-dimension and thick plate material (⩽12mm).

APPLICATION & SAMPLE

Items		XD-Y26 Series Frame-Type Fine Blanking Hydraulic Press Technical Parameters			
	Unit	XD-Y26-200T	XD-Y26-300T	XD-Y26-500T	XD-Y26-800T
Nominal Pressure of Master Cylinder	KN	2000	3000	5000	8000
Max.Operating Pressure of Liquid of Master Cylinder	MPa	20	20	25	25
Return Force of Master Cylinder	KN	100	125	150	200
Max.Stroke of Master Cylinder	mm	300	350	350	350
Nominal Force of Upper Edge-Pressing Cylinder	KN	750	1000	1500	2000
Max.Stroke of Upper Edge-Pressing Cylinder	mm	25	25	25	25
Nominal Pressure of Lower Edge-Pressing Cylinder	KN	750	1000	1500	2000
Max.Stroke of Lower Edge-Pressing Cylinder	mm	25	25	25	25
Effective Area of Workbench	mm	560x560	700x700	800x800	900x900
Vertical Speed of Moveable Crossbeam — Rapid Down	mm/s	200	180	200	230
Vertical Speed of Moveable Crossbeam — Work Progress	mm/s	8	10	10	8
Vertical Speed of Moveable Crossbeam — Return	mm/s	180	170	180	240
Shut Height — Max.	mm	450	800	850	500
Shut Height — Min.	mm	150	450	500	150
Motor Power	KW	15	18.5	22	45

Frame-Type Hydraulic Press

XD-YD34

Frame-type hydraulic press is widely used in manufacture metal or non-metal components involve stamping, extruding, shallow drawing, trimming and edge cutting process.

Performances and Features

1)The equipment adopts holistic steel casting frame structure, characterized by good overall consistency, strong anti-offset load force and good stability. Using holistic steel casting frame structure can efficiently solve the problem of unbalance stress and increase of geometric error with the increase of working hours;

2)Equipped with fast cylinder, pressurized cylinder, master cylinder and independent cooling system. The use of pressurized cylinder will achieve large-tonnage with small workbench and the forming pressure can reach 40~60MPa, especially suitable for small products with great thickness;

3)Adopt PLC for system control, the load path of forming process can easily adjust and monitored by intelligent HMI;

4)Adopt contactless relay controlling output so that to shorten the system response time and extend service life, also eliminate the reaction lag of electrical elements resulting from residual magnetism of conventional relay;

5)Fast starting speed and acting reliably with high sensitivity, the equipment is safe and easy to operate. Manual regulation and semi-automatic operation are optional.

Applications

Frame-type hydraulic press for manufacturing component parts of automobile, electrical appliances, hardware and tools, glasses frames, watchbands, watch housings, picture frames, metal scutcheon, tableware, locksets and grinding wheels. It is especially suitable for embossing and pressing process of non-stick and aluminum made cookware.

Descriptions

Frame-type hydraulic press is generally adopts holistic steel casting frame structure, characterized by superior rigidity, overall consistency and anti-offset load force. Also, the equipment possess fast starting speed and acting reliably with high sensitivity features.

APPLICATION & SAMPLE

Items		Unit	XD-YD34 Series Frame-Type Hydraulic Press Technical Parameters								
			XD-YD34-100T	XD-YD34-200T	XD-YD34-300T	XD-YD34-500T	XD-YD34-1000T	XD-YD34-1500T	XD-YD34-2500T	XD-YD34-2500T	XD-YD34-3000T
Nominal Pressure of Master Cylinder		KN	1000	2000	3000	5000	10000	15000	20000	25000	25000
Max. Operating Pressure of Liquid of Master Cylinder		MPa	20	20	20	20	20	20	20	20	20
Max. Stroke of Master Cylinder		mm	160	160	160	160	160	160	160	250	250
Shut Height		mm	350	400	450	550	600	700	800	900	1000
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	120	120	130	120	120	120	120	120	120
	Work Progress	mm/s	5	5	5	5	0~5	0~5	0~5	0~5	0~5
	Return	mm/s	120	120	130	120	120	150	150	150	150
Effective Area of Workbench	Left & Right	mm	420	500	580	700	800	920	1150	1250	1350
	Fore & Rear	mm	420	520	580	700	800	920	1150	1250	1350
Height Between Workbench and Ground		mm	900	950	990	1100	1400	1580	1700	1150	1200
External Dimension		mm	900×950×1200	1100×1000×1400	1150×1100×1500	1300×1200×1750	1500×1500×2850	1680×2000×3000	2000×2000×3200	2700×2500×4000	3000×2700×4300
Motor Power		KW	5.5	5.5	7.5	15	15	37	37	37	45
Maximum Working Pressure of Pressurizer		MPa					36	39	39	39	39
Net Weight		T	2	2.8	3.5	6	15	19	24	44	58

Down-Acting 4-Post Hydraulic Press

XD-Y32

Down-acting 4-post hydraulic press is mainly used for trimming, stamping, shallow drawing, blanking, bending, edge folding and cutting, press-fitting, press forming of metal and non-metal or plastic materials.

Performances and Features

1) 3-beam and 4-post structured, holistic solid steel plate is used as beams and process machining work use CNCs. This can effectively avoid the welding deformation and stress deformation of welded structure and ensure working precision;

2) The cylinder body and beams of traditional equipment carry out machining work separately, then use screw bolts and flanges for connection. Thurs, defects like high degree of fatigue and short service life will easily occurred. With integration casting of cylinder and beam technique, these defects can be effectively avoided and characterized by high strength and high anti-offset load force;

3) The equipment adopts double-speed mode, master cylinder adopt piston-type master-slave structure which effectively minimize the redundant time of cylinder descending and achieve fast forming. Therefore, the equipment characterized by low power consumption and closing mould with fast speed while no-load;

4) According to product requirements, personalized customization is acceptable from 20T to 1000T.

Applications

The equipment is mainly applicable to industries of household electrical appliances, light industry, kitchen wares, hardware and tools (e.g. pliers, scissors and wrenches), automobile parts, jewelry accessories and powder metallurgy. More specifically, product like motorcycle accessories, stainless steel sinks, tableware, gears, laminations, glasses frames, watchbands, picture frames, metal badges, metal scutcheon and brick tea, etc.

Descriptions

Down-acting 4-post hydraulic press adopts integration casting of cylinder and beam technique, characterized by strong anti-offset load force, compact structure and saving space properties. Master-slave structured cylinder allows no-load fast mold. The equipment is applicable for forming small dimension components in vertical direction, such as: automobile parts, hardware and tools and gears.

APPLICATION & SAMPLE

Items		Unit	XD-Y32 Series Down-Acting 4-Post Hydraulic Press Technical Parameters					
			XD-Y32-20T	XD-Y32-25T	XD-Y32-30T	XD-Y32-50T	XD-Y32-100T	XD-Y32-200T
Nominal Pressure of Master Cylinder		KN	200	250	300	500	1000	2000
Max.Operating Pressure of Liquid of Master Cylinder		MPa	17	17	17	20	20	20
Return Force of Master Cylinder		KN	130	100	150	40	60	70
Stroke of Master Cylinder		mm	350	350	350	350	300	300
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	Single Speed 40	150	Single Speed 35	150	210	220
	Work Progress	mm/s		20		23	20	20
	Return	mm/s	60	110	55	110	195	220
Shut Height	Max.	mm	550	600	550	600	600	600
	Min.	mm	200	250	200	250	300	300
Effective Area of Workbench		mm	400×400	420×500	400×400	450×540	550×560	550×600
Motor Power		KW	5.5	5.5	5.5	7.5	15	18.5
Items		Unit	XD-Y32-300T	XD-Y32-500T	XD-Y32-550T	XD-Y32-650T	XD-Y32-800T	XD-Y32-1000T
Nominal Pressure of Master Cylinder		KN	3000	5000	5500	6500	8000	10000
Max.Operating Pressure of Liquid of Master Cylinder		MPa	21	20	20	20	20	20
Return Force of Master Cylinder		KN	80	200	200	200	300	300
Stroke of Master Cylinder		mm	300	300	500	500	550	600
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	200	200	190	190	210	210
	Work Progress	mm/s	19	12/30	12/30	12/30	11/30	11/30
	Return	mm/s	220	220	195	195	195	195
Shut Height	Max.	mm	600	700	1000	1000	1100	1200
	Min.	mm	300	400	500	500	550	600
Effective Area of Workbench		mm	700×800	950×1000	1200×1200	1200×1060	1200×1150	1600×1300
Motor Power		KW	22	55	55	75	75	75

Up-Acting 4-Post Hydraulic Press

XD-Y33

Up-acting 4-post hydraulic press is mainly used for shaping, stamping, shallow drawing, trimming, blanking, bending, edge folding and cutting, press-fitting, press forming of metal, non-metal or plastic materials.

Performances and Features

1)3-beam and 4-post structured, holistic solid steel plate is used as beams and process machining work use CNCs. This can effectively avoid the welding deformation and stress deformation of welded structure and ensure working precision;

2)Master cylinder is equipped on the lower part of the equipment, which result advantages such as: effectively reduce the center of gravity, operating vibration and the working environment requirements; generally increase working stability and reliability;

3)Master cylinder is using plunger cylinder and the slave cylinder is used for rapid ascending function. The master cylinder descends only rely on its dead weight while the return stroke, so that to save energy consumption;

4)All guiding post and pistol lever adopt 45# high quality carbon structure round steel material. Tempering and intermediate frequency heat treatment for the surface as well as electroplating with the thickness of 0.04-0.6mm hard chrome and polishing treatment, thus having good wear resistance superiority.

Applications

The equipment is mainly applicable to industries of household electrical appliances, light industry, kitchen wares, hardware and tools (e.g. pliers, scissors and wrenches), automobile parts, jewellery accessories and powder metallurgy. More specifically, product like motorcycle accessories, stainless steel sinks, tableware, gears, laminations, glasses frames, watchbands, picture frames, metal badges, metal scutcheon and brick tea, etc.

Descriptions

Up-acting 4-post hydraulic press employ high pressure liquid as power source. Master cylinder is equipped on the lower part of the equipment, slave cylinder is used for rapid ascending function. However, master cylinder descends only rely on its dead weight while the return stroke. Hence, result advantages such as:

1)energy saving

2)reduce the center of gravity

3)reduce operating vibration

4)low working environment requirements

5)increase working stability and reliability

This equipment is suitable for machining and manufacturing parts which are required to have high dimensional accuracy and large tonnage, including powder metallurgy and hardware tools.

APPLICATION & SAMPLE

Items		Unit	XD-Y33 Series Up-Acting 4-Post Hydraulic Press Technical Parameters						
			XD-Y33-100T	XD-Y33-200T	XD-Y33-300T	XD-Y33-500T	XD-Y33-600T	XD-Y33-1000T	XD-Y33-1500T
Nominal Pressure of Master Cylinder		KN	1000	2000	3000	5000	6000	10000	15000
Max. Operating Pressure of Liquid of Master Cylinder		MPa	20	20	20	20	20	21	22.6
Max. Stroke of Master Cylinder		mm	160	160	160	160	160	160	160
Shut Height		mm	350	400	450	450	450	550	700
Vertical Speed of Moveable Crossbeam	Rapid Down	mm/s	120	120	130	120	120	120	100
	Work Progress	mm/s	5	5	5	5	4	0~4	0~3
	Return	mm/s	120	120	130	120	120	120	150
Effective Area of Workbench	Left & Right	mm	420	500	580	700	800	1000	1150
	Fore & Rear	mm	420	520	580	700	800	1000	1150
Height Between Workbench and Ground		mm	900	950	990	1100	1200	1400	1580
External Dimension		mm	1000×950×1200	1100×1200×1400	1450×1200×1650	1500×1300×1800	1600×1400×1850	2400×1500×3100	2680×2000×3200
Motor Power		KW	5.5	5.5	7.5	11	11	15	22
Net Weight		T	2	2.8	3.5	6	8	18	26

Oil Cooling Device

XD-FY

Oil cooling device is design in accordance of the principle of refrigeration system. Heat generated from equipment or machine will be absorbed by refrigerating fluid in the evaporator. Vaporization is occurred and turns to micro-thermal and low-pressure steam, then goes into compressor. Steam will be compressed and turns to high-temperature and high-pressure steam and discharge into condenser. In the condensation process, heat will be release and turns to high-pressure liquid. Finally, high-pressure liquid turns to micro-thermal and low-pressure refrigerating fluid flow back into evaporator so that to achieve circulation of refrigeration. A complete refrigeration cycle includes 4 fundamental procedures: compression, condensation, throttling and evaporation.

Applications

These devices are widely used for oil cooling of machines, including hydraulic press, oil press, high speed lathes, grinding machines, electric spark machine tools, grinding machines, discharge machines, broaching machines, milling machines, CNCs, woodwork carving machines and cutting machines, etc.

Descriptions

The oil cooling device also named: oil cooler, which is constituted by axial fan, compressor, heat exchanger, condenser expansion valve, thermostat, special evaporator and control systems. Taking refrigerant types for example, the compressor conduct high-pressure compression and low-pressure release of liquid so as to achieve oil cooling and ensure the temperature of the equipment is stable.

Performances and Features

1） Our company has two types of oil cooling devices: water cooled and refrigerant types, they are applied to two different situations respectively: general heat dissipation and high heat dissipation. The water cooled equipment is superior in price, while the refrigerant-type is effective for lowering temperature of the equipment and thereby guaranteeing oil quality;

2） The equipment is useful for lowering temperature of liquid, preventing poor stability and precision of equipment occur from high oil temperature, protecting oil from deterioration at high temperature and maintain oil viscosity unchanged so that machines can run steadily;

3） Oil temperature is controlled based on temperature of the equipment. Users may set oil temperature according to the temperature of the equipment, so as to protect mechanical structures generate heat deformation;

4） The equipment possess automatic alarm system to report failures. Users can be promptly informed and conduct maintenance thereby to prevent serious damage;

5） The immersion oil cooling and temperature control device is neither polluted by impurity substance nor influence by metal cutting powder, characterized by clean, easy to maintain and install and save space usage;

6） Equipped with HMI, parameters such as upper/lower limits of temperature and startup frequency can be easily set.

Item	Unit	XD-FY Series Oil Cooling Device Technical Parameters							
		XD-FY1HP	XD-FY2HP	XD-FY3HP	XD-FY4HP	XD-FY5HP	XD-FY6HP	XD-FY8HP	XD-FY10HP
Refrigerating Capacity	KW	2.65	5.1	7.55	9.81	12.56	15.21	19.62	25.21
		3.1	5.97	8.83	11.48	14.69	14.69	22.96	28.5
	Kcal/h	2275	4383	6490	8532	10792	13077	16870	24089
		2662	5120	7598	9902	12625	15330	19743	21730
Supply Voltage	N-V Hz	1N-220V 50Hz/60Hz			3N-380V/415V 50Hz/60Hz				
Type of Refrigerant		R22							
Nominal Charge of Refrigerant	Kg	0.8	1.8	2.7	3.5	4.3	5	3.5×2	4.3×2
Refrigerant Control Method		Capillary / Thermal Expansion Valve							
Type of Compressor		Fully Enclosed Vortex Type							
Compressor Power	KW	0.75	1.5	2.25	3	3.75	4.5	3×2	3.75×2
Cooling Air Volume	m^3/h	1100	2200	3200	4300	5300	6400	8500	10600
Cooling Oil flux	m^3/h	0.59	1.14	1.68	2.19	2.81	3.41	4.39	5.64
Cooling Oil Volume	m^3	0.028	0.038	0.038	0.065	0.065	0.11	0.11	0.188
Inlet Pipe Diameter		G1/2	G3/4	G3/4	G3/4	G1	G1	G1	G1-1/4
Outlet Pipe Diameter		G3/4	G3/4	G3/4	G1	G1	G1	G1-1/4	G1-1/4
Power of Oil Pump Motor	KW	0.75	0.75	0.75	0.75	0.75	1.5	1.5	1.5
Pressureof Oil Pump Motor	MPa	0.18	0.2	0.2	0.2	0.2	0.2	0.2	0.2

INTERNATIONAL SERVICE NETWORK

AMERICA

- U.S.A

ASIA

- CHINA
- MALAYSIA
- VITENAM
- THAILAND
- PHILIPPINES

ASIA

- PAKISTAN
- JAPAN
- INDIA

THE POWER OF XINGDI MACHINERY

Xingdi Machinery holds two production centers located in Guangdong and Henan Province in China. Guangdong factory has perfect production plant and office facilities, suitable for manufacture of small tonnage intelligent hydraulic equipment; Henan production and research center covers an area of more than 40000 m^2. More specifically production workshop area of more than 12000 m^2, office area of more than 4000 m^2 and 2000 m^2 of staff accommodation area, which is applicable to the production of large and medium-sized intelligent hydraulic machinery. Production workshop has perfect production equipment and configuration, including more than 70 tons hoists, dozens of large CNC machining equipment, large cutting equipment and a variety of small and medium-sized machining equipment.

SERVICE

In order to create a national brand name card, improve the reputation and establish the image of the enterprise, we are strictly follow the regulation of ISO International Standard Quality Management System and the 7S Management Standards for quality control and internal administrative control.

We in line with the spirit of “Together we can form better” and “The best or nothing”. “Best quality, excellent products with reasonable price and professional service” is the long-term aim of our enterprise.

ENTERPRISE COOPERATION

THERMOS 膳魔師 · TIGER 虎牌 · HAERS 哈尔斯 · 潍柴动力 WEICHAI POWER · Mercedes-Benz · BYD · BMW · Volkswagen · Buick