

EQUIPMENT List

HYDROFORMING

WELDED ASSEMBLIES

SHORT RUN PRODUCTION

INSPECTION SERVICES

CNC TURNING

LASER CUTTING

WIRE EDM

LASER WELDING

5X CNC MACHINING

SHEET METAL FABRICATION

STAMPINGS & DEEP DRAWS

**ADVANCING THE ART OF
PROTOTYPE MANUFACTURING**

www.quasar.com

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QUASAR INDUSTRIES EQUIPMENT LIST

5-AXIS LASER CUTTING & WELDING SYSTEMS

Model	Quantity	Table Size	Power	Our 5-axis lasers can hold tolerances up to ± 0.001 ". Steel $\leq .625$ " thick Aluminum $\leq .250$ " thick Stainless $\leq .236$ " thick
NTC TLM 610 ROFIN-SINAR 2000 SM	1	6' x 10'	2,200 Watts	
KOMATSU TLM 610 06R PRC STS 3300	1	6' x 10'	3,300 Watts	
TRUMPF TLC-1000 TLF-2700 Laser	1	5' x 10'	2,700 Watts	
TRUMPF 7040	1	4m x 2m (13' x 6.5') (2) 2m x 2m Stations	4,000 Watt Disc Fiber	
TRUMPF 7040	1	4m x 1.5m (13' x 5')	3,000 Watt Disc Fiber	Simultaneous 6axis Cutting & Welding with rotary.

3-AXIS LASER CUTTING SYSTEMS

Model	Quantity	Table Size	Power	Our 3-axis lasers can hold tolerances up to ± 0.001 ". Steel ≤ 1.000 " thick Aluminum $\leq .500$ " thick Stainless $\leq .375$ " thick
ROFIN-SINAR DC 025	2	48" x 40"	2,500 Watts	
ROFIN-SINAR DC 020	1	26" x 26"	2,000 Watts	
ROFIN-SINAR 2000 SM	1	24" x 24"	2,000 Watts	
ROFIN-SINAR 1700 SM	1	24" x 24"	2,000 Watts	
Cincinnati CL-960 IPG Fiber Laser	1	5' x 10' With Pallet Changer	6,000 Watts	
Cincinnati CL-440 PRC-ST5-4000	1	4m x 2m (13' x 6.5') With Pallet Changer	4,000 Watts	2,000 ipm rapid traverse Positioning accuracy ± 0.001 " Repeatability 0.0002"

LASER WELDING SYSTEMS

Model	Quantity	Table Size	Power	Laser welding is a quick, efficient and effective way to assemble components with low heat effect zones and close tolerance work.
ROFIN-SINAR 880 HF	2	48" x 48" 48" x 48"	8,000 Watts	
TRUMPF 7040	1	4m x 1.5m (13' x 5')	3,000 Watt	
NTC TLM-610	4	120" x 60"	3,000 Watt	5axis CO2 Laser Welding

PART MARKING SYSTEMS

Model	Quantity	Marking Field	
GT SCHMIDT Styliner Mark4	3	8" x 8" x 12"	Character Height: Variable from .040" to 8.00" Marking Depth: Variable from .001" to .020"
Laser Marking Technologies Cobalt-XL-30PF	1	Marking field: 35" x 6.89" Max Piece: 44" x 28" x 18.5"	30 Watt IPG Laser with LMT Digital Scan Head

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CNC MACHINING CENTERS

Model	Quantity	Size	Power	
AWEA SP 3016	2	X axis – 120" Y axis – 60" Z axis – 30"	35 HP	Our CNC machines have working envelopes of up to 5' wide by 10' long.
AWEA SP 2016	1	X axis – 72" Y axis – 60" Z axis – 30"	35 HP	
HAAS VF3	2	X axis – 48" Y axis – 18" Z axis – 25"	25 HP	
HAAS VF2	3	X axis – 30" Y axis – 16" Z axis – 20"	10 HP	
HAAS VF5	1	X axis – 52" Y axis – 23" Z axis – 28"	30 HP 10,000-rpm	Our HAAS machines are controlled by the latest "NEXT-GEN" Controllers with high speed machining.
HAAS VF3-SSTY w/ Intuitive Probing	2	X axis – 40" Y axis – 26" Z axis – 25"	30 HP 12,000-rpm	
Haas UMC-750 5axis CNC w/ Intuitive Probing	1	X axis – 30" Y axis – 20" Z axis – 20"	30 HP 8100-RPM	24" x 20" Dual-Axis Trunnion Table B Axis – Tilt: +110°, -35° Max Cutting Feedrate: 650ipm
HAAS HRT210 (4 TH AXIS Rotary Table)	2	Ø8"		Rotary axis enables us to machine simultaneous 4-axis operations.

CNC LATHES

Model	Quantity	Size	Power	
HAAS ST-30SSY 49" Bar Feeder up Ø3"	1	Ø16" x 23" Max Capacity	30 HP 4500-rpm Spindle	<ul style="list-style-type: none"> ±2.0" Y-axis travel for off-center milling, drilling and tapping. 6000-rpm live tooling with Axial and Radial heads. Hydraulic Collet Chuck
Bridgeport ROMI CNC Lathe	1	D axis – 36" X axis – 14"	8 HP	

5-AXIS WIRE EDM

Model	Quantity	Length	Cutting Rate	Comment
Accutex AX-8060 Submerged EDM	1	52" x 39" x 24"		Our 5-axis wire EDM machines can cut material up to 24" thick and hold a tolerance to within ±.0002".
FANUC ROBOCUT α-1C Submerged EDM	3	14" x 20" x 12"	3 mm/min	
FANUC ROBOCUT α-OB	1	8" x 12" x 6"	1.5 mm/min	

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MACHINIST CENTERS

Model	Quantity	Size	Power	Type
Bridgeport SERIES I	13	9" x 48"	3 HP	Manual Knee Mill
Logan Lathe	1			Lathe
LeBlond Lathe	1			Lathe
Nardini Lathe	1			Lathe
Parker-Majestic	1		3 HP	Precision Grinder

TUBE BENDING

Pines Tube Bender	0.250" – 4" Tube Diameter
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INJECTION MOLD

BOY 15S	2 oz. Shot	15 Ton
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PRESS BRAKES

Model	Quantity	Length	Power
Cincinnati AutoForm-175 CNC Hydraulic Press Brake w/ 6axis Back-Gage	1	120"	175 Tons
Cincinnati Maxform-175 CNC Hydraulic Press Brake w/ 6axis Back-Gage	1	96"	175 Tons
Cincinnati Hydraulic Press Brake	10	96"	90-230 Tons
Accurpress 7606 Press Brake	3	72"	60 Tons
Bantam Pneumatic Press Brake	23	24"	12-24 Tons

WELDING - ASSEMBLY

FANUC M-16iL T ROBOTIC WELDER on 25' Trolley Lincoln Electric POWER WAVE 450		2 - Koike Aronson RH 51.5 Rotary Tables 10' Long 2 - Stationary tables. Overall envelope 25'x16'	
GMAW / SMAW	Quantity	GTAW	Quantity
Lincoln Electric POWER WAVE 455	2	Miller SYNCROWAVE 350 LX	1
Lincoln Electric POWER WAVE C300	1	Miller SYNCROWAVE 350	1
Lincoln Electric IDEALARC SP-250	1	Miller SYNCROWAVE 351	1
L-TEC MIGMASTER 250	1		
L-TEC VI-252 CV	2		
Miller DELTAWELD 302	1		
WELDING – ASSEMBLY Support Equipment			
SPOT WELDER 150kva	2	SPOT WELDER 85kva	2
Ø 5/8" Spin Riveter, Ø.06"- Ø.63", Max. Thrust 5,520lbs		Thermal Dynamics PAK MASTER 75XL Plasma Cutters	

QUASAR INDUSTRIES EQUIPMENT LIST

HYDROFORMING / STAMPING

Model	Die Space	RAM Capacity	Hydroforming
Schuler HP 50,000-3150/2150	BOLSTER: 178" x 85" 129" Front Loading Clearance 85" Side Loading Clearance 75" Daylight Opening 35" Shut Height	RAM/SLIDE: 124" x 85" 5,500 Ton Forming 153 Ton Retraction Max Weight 22 Tons	58,000 PSI Hydroforming Pressure 1-set Axial Cylinders 120 Ton, 8" Stroke 1-set Axial Cylinders 400 Ton, 8" Stroke

HYDRAULIC PRESSES

Model	Quantity	Bed Size	Capacity	
Schuler	1	85" x 178" 75" Window	5,500 Tons	Capable of 600 Tons of binder force.
St. Lawrence	1	60" x 132" 48" Window	2,000 Tons	
St. Lawrence	1	72" x 108" 48" Window	1,000 Tons	
HPM Press	1	48" x 48" 48" Window	1,000 Tons	300 Ton Hydraulic Cushion
HPM Press	1	48" x 48" 48" Window	750 Tons	
Baker	1	48" x 48" 36" window	400 Tons	
Birdsboro	1	42" x 108" 36" Window	400 Tons	
Cincinnati 250 OBS	2	36" x 60" 17" Window	250 Tons	
Dorr-Patterson A5093	2	24" x 24" 18" window	150 Tons	
Colonial PA 125-12	1	24" x 48" 18" window	100 Tons	
Hannafin S-100-96-12-4-2-SP	3	24" x 48" 36" window	100 Tons	

MECHANICAL PRESSES

Model	Quantity	Bed Size	Capacity	
Verson SE-2-600-120-54 Mechanical	2	55" x 122" 44" Window	600 Tons	
BLISS SE2-350 Mechanical	1	36" x 84" 38" Window	350 Tons	
Komatsu	1	28" x 76" 21" Window	150 Tons	
Kukil P1A-110 Mechanical	3	24" x 48" 17" window	120 Tons	

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QUALITY CONTROL / INSPECTION

Model	Quantity	Table Size	
Wenzel XO 10.12.7 UCC T5 Controller & Renishaw PH20 Probe	1	X axis – 39.37” Y axis – 47.24” Z axis – 27.5”	All of our CMMs are calibrated by ANAB accredited calibration laboratories. Quasar Industries maintains current certifications in: <ul style="list-style-type: none"> • ISO 9001:2015 Our quality assurance manual is updated annually and all our CMM machines are certified with the U.S. Bureau of Standards and meet all automotive standards as well as MIL-I-45208 and MIL-STD-45662.
Starrett RGDC 6440-24 PC-DMIS Controlled	1	X axis - 40” Y axis - 64” Z axis - 24”	
Starrett RCS 6440-18 Manual CMM	1	X axis - 40” Y axis - 64” Z axis - 18”	
Starrett HGC-EX2018-16 Manual CMM	1	X axis - 20” Y axis - 18” Z axis - 16”	
Starrett HGC-EX2420-16 Manual CMM	2	X axis - 20” Y axis - 24” Z axis - 16”	
Brown & Sharpe MICRO VAL Programmable CMM	1	X axis - 14” Y axis - 16” Z axis - 12”	
FARO EDGE ARM Laser Line Probe HD	1	7 Axis 9 Ft arm	
Q-Test 7 Tensile Tester		Up to .500” Thickness and 20,000 lb Tension Capacity	
Antonik AERM Hardness Tester			

Digital Microscopic Validation	
<p>Olympus SZX7 Stereo Microscope, up to 56x Zoom with PAXcam3 Digital Camera with PAX-it Software</p> <p>Capture Images Directly to PAX-it Image Database Software</p> <p>Used for weld verifications and small part inspection.</p>	<ul style="list-style-type: none"> • Calibrated image scaling • Point to point measurements • Manual area measurements: Rectangles, Ellipses, Polygons, Irregular shapes • Angle measurement • Arc, circle and ellipse measurement • Grid overlays on image • Parallel line calipers • Reporting to various formats with Images

CAD / CAM CAPABILITIES

Design Capabilities	CAD/CAM Packages																				
<ol style="list-style-type: none"> 1. Forming Dies: 2pc, 3pc, and Multi-Action. 2. Deep Draw Stamping Dies 3. Blanking Dies 4. Tubular Bend Dies 5. Tubular Hydroform 6. Hydroform Pre-Form Dies 7. Custom Press Brake Bend Dies 8. Plotting Capabilities: 42” Wide Color 	<ol style="list-style-type: none"> 1. AutoCAD 2. Powershape, Solid Modeling and Surfacing (<i>Latest Release</i>) 3. CopyCAD, Reverse Engineering (<i>Latest Release</i>) 4. Powermill, Toolpath Generation (<i>Latest Release</i>) 5. Catia V5 6. FASTRIM from CENIT, 5-axis laser programming (<i>Latest Release</i>) 7. SolidWorks v2000 8. Camax Rex 6.1 and Alps 5-axis laser post processor 9. MetaMation-Metacam; 2D CAM Profiles, 3D-Unfolding, Nesting (<i>Latest Release</i>) 10. Spicer Imagination, (Drawing Viewer) 11. PAMSTAMP 2G (<i>Latest Release</i>) <ul style="list-style-type: none"> • HYDRO-FORM Simulation • Virtual Stamping Validation • Predict material thinning, wrinkles, and failures from Forming Limit Curves • Predict Stresses and Strains, Pressures, Velocity Vectors, and Displacement Vectors. 																				
<p>Supported Formats</p> <table> <tr> <td>AutoCAD</td> <td>Pro-Engineer</td> <td>ACIS 17.0</td> </tr> <tr> <td>CATIA & CATIA 5</td> <td>Rhino</td> <td>DXF</td> </tr> <tr> <td>Cimatron</td> <td>Solidedge</td> <td>IGES</td> </tr> <tr> <td>Elite</td> <td>SolidWorks</td> <td>Parasolid</td> </tr> <tr> <td>IDEAS</td> <td>SpaceClaim</td> <td>STEP</td> </tr> <tr> <td>Inventor</td> <td>TopSolid</td> <td>U3D</td> </tr> <tr> <td></td> <td>Unigraphics NX</td> <td>VDA-FS</td> </tr> </table>		AutoCAD	Pro-Engineer	ACIS 17.0	CATIA & CATIA 5	Rhino	DXF	Cimatron	Solidedge	IGES	Elite	SolidWorks	Parasolid	IDEAS	SpaceClaim	STEP	Inventor	TopSolid	U3D		Unigraphics NX
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