CASE STUDY





HOW FOCUSED ON MACHINING MANAGED MULTIPLE VENDORS TO COMPLETE A CRITICAL AEROSPACE PART IN 5 DAYS.

THE COMPANY

BOOM SUPERSONIC IS REDEFINING COMMERCIAL FLIGHT BY BRINGING SUPERSONIC FLIGHT BACK TO THE SKIES WITH OVERTURE. THIS HISTORIC COMMERCIAL AIRLINER IS DESIGNED AND COMMITTED TO INDUSTRY-LEADING STANDARDS OF SPEED, SAFETY, AND SUSTAINABILITY.

BOOM'S VISION IS TO BRING FAMILIES, BUSINESSES, AND CULTURES CLOSER TOGETHER THROUGH SUPERSONIC TRAVEL AND MAKE THE WORLD DRAMATICALLY MORE ACCESSIBLE.

INDUSTRY: INFORMATION TECHNOLOGY AND SERVICES

LOCATION: BOSTON, MASSACHUSETTS

COMPANY SIZE: 165

THE PROJECT

THE CHALLENGE:BOOM SUPERSONIC NEEDED A CRITICAL PART FOR THEIR SUPERSONIC DEMONSTRATOR AIRCRAFT TURNED AROUND IN LESS THAN A WEEK.

THE SOLUTION: FOCUSED ON MACHINING MACHINED THE PART IN-HOUSE AND MANAGED TRUSTED VENDORS FOR HEAT-TREATING AND FINISHING.

THE OUTCOME: FOCUSED ON MACHINING DELIVERED THE COMPLETED PART TO BOOM SUPERSONIC IN JUST 5 DAYS.

THE GO-TO SHOP FOR PRECISION LATHE WORK

IN THE PROCESS OF BUILDING OVERTURE, THE FASTEST AND MOST SUSTAINABLE SUPERSONIC AIRLINER, BOOM SUPERSONIC HAS RELIED ON FOCUSED ON MACHINING TO MACHINE A NUMBER OF THEIR PARTS.

FOCUSED ON MACHINING IS RENOWNED AS ONE OF THE GO-TO SHOPS FOR PRECISION LATHE WORK IN COLORADO. IN ADDITION TO DELIVERING HIGH-QUALITY PARTS TO CUSTOMERS, THE SHOP PROVIDES COMPREHENSIVE DATA PACKAGES TO SIMPLIFY RECEIVING AND TRACKING PROCESSES.

WHEN BOOM SUPERSONIC REACHED OUT TO JUSTIN QUINN, PRESIDENT OF FOCUSED ON MACHINING, TO MACHINE A TAPER PIN FOR A FLIGHT CONTROL ASSEMBLY, THEY KNEW THEY WOULD BE IN GOOD HANDS.

"JUSTIN IS EXTREMELY PROFESSIONAL, BUT NOT TO THE POINT WHERE HE'S BORING OR INTIMIDATING," SAID AMANDA SAUNDERS, MANUFACTURING ENGINEER/SUPPLY CHAIN LIAISON AT BOOM SUPERSONIC. "IT'S A LOT OF FUN TO WORK WITH HIM. HE'S VERY RESPONSIVE, WHETHER VIA EMAIL OR PHONE CALL, AND AS THE ONLY PERSON DOING MY JOB. I APPRECIATE HOW RELIABLE HE IS."

BOOM SUPERSONIC IS OFTEN UP AGAINST TIGHT DEADLINES. WHEN THEY NEED A PART MACHINED, THEY NEED IT DONE FAST.

"THERE'S ALWAYS EXCELLENT COMMUNICATION AROUND DEADLINES WHEN WE WORK WITH JUSTIN. HE DOES WHATEVER IT TAKES TO GET US OUR PARTS WHEN WE NEED THEM. IF HE HAS AN IDEA FOR ACCELERATING LEAD TIME, HE TALKS TO US ABOUT IT AND WE FIGURE IT OUT TOGETHER." SAID AMANDA.



PROJECT MANAGING THE ENTIRE MANUFACTURING PROCESS IN RECORD TIME

BOOM SUPERSONIC NEEDED THEIR TAPER PIN HEAT-TREATED, MACHINED, PLATED, AND DELIVERED IN LESS THAN A WEEK—AND FOCUSED ON MACHINING WAS UP FOR THE CHALLENGE.

THEY USED AN ONLINE METAL SUPPLIER TO SOURCE THE PROPER ALLOY, AND HAD IT DROPSHIPPED DIRECTLY TO A TRUSTED VENDOR FOR HEAT-TREATING IN JUST 1.5 DAYS. THE HEAT-TREATING VENDOR THEN SENT THE PART TO FOCUSED ON MACHINING, WHERE THEIR TEAM MACHINED AND INSPECTED IT WITHIN 2 DAYS.

THE PART WAS CHALLENGING TO MACHINE BECAUSE THE MATERIAL HAD BEEN HEAT-TREATED TO 54 ON THE ROCKWELL HARDNESS SCALE, MAKING IT ALMOST AS HARD AS THE TOOLS FOCUSED ON MACHINING USED TO CUT IT. IT ALSO NEEDED EXCEPTIONALLY TIGHT TOLERANCES OF LESS THAN +/-.0001".

AFTER COMPLETING THE MACHINING OPERATIONS IN THEIR LOUVIERS FACILITY, FOCUSED ON MACHINING DROPSHIPPED THE PART TO THEIR PLATING PARTNER IN COLORADO SPRINGS FOR AN ELECTROLESS NICKEL COATING. THIS FINISHING OPERATION PROVIDES ADDITIONAL HARDNESS, AS WELL AS LUBRICITY THAT ALLOWS THE TAPER PIN TO SLIDE EASILY AGAINST OTHER PARTS.

THE NEXT DAY, FOCUSED ON MACHINING DROVE DOWN TO COLORADO SPRINGS TO PICK UP THE PART AND BRING IT BACK TO THEIR SHOP FOR INSPECTION BEFORE DELIVERING IT TO BOOM SUPERSONIC.

"IT'S ALWAYS CHALLENGING TO DELIVER ON A TIGHT DEADLINE WHEN MULTIPLE VENDORS ARE INVOLVED. BUT WE'RE SO USED TO MANAGING THE MANUFACTURING PROCESS FOR OUR CUSTOMERS THAT WE KNOW WHAT IT TAKES TO MAKE IT HAPPEN," SAID JUSTIN.



KEY DIFFERENTIATORS

FOR MORE THAN A DECADE, FOCUSED ON MACHINING HAS PROVIDED HIGH-QUALITY, CUSTOM MACHINED PARTS AND COMPONENTS FOR CUSTOMERS ACROSS A WIDE RANGE OF INDUSTRIES INCLUDING AEROSPACE, ENERGY, MANUFACTURING, FOOD AND BEVERAGE, AND MILITARY.

SHORT LEAD TIMES

FOCUSED ON MACHINING SPECIALIZES IN DELIVERING CNC MACHINED PARTS IN 2-4 WEEKS. THAT MEANS HIGH-QUALITY PARTS WHEN YOU NEED THEM.

COMMUNICATION + TRANSPARENCY

FOCUSED ON MACHINING COMMUNICATES WITH CUSTOMERS EVERY STEP OF THE WAY. THEY NEVER MAKE ASSUMPTIONS OR KEEP CUSTOMERS IN THE DARK.

PRECISION MACHINING CAPABILITIES

MACHINING REQUIRES A TREMENDOUS DEGREE OF SKILL AND AN EMPHASIS ON PRECISION. FOCUSED ON MACHINING EXCELS AT ACHIEVING THE TIGHTEST TOLERANCES AND THE MOST COMPLEX GEOMETRIES.