

SERVOCONTROLS & Hydraulics India Pvt. Ltd

Survey No. 683, Udyambag, Industrial Estate, KARNATAKA-590008. INDIA

PH:91-831-2407501/02/03, 2481734,4201132, FAX:91-831-2484496

E-mail: sales@servocontrolsindia.com

Website: www.servocontrolsindia.com



Exclusive technical alliance partners representation in Indian continent since 2002



TEMPOSONICS, Germany – Non contact Magnetostrictive Position sensors



STAR (Servo Technology & Research), UK - Servo Valves



DELTA MOTION, USA – Closed loop Motion Controllers



HYDRAFORCE, USA – Screw in Cartridge and Proportional valves



ORMEC, USA – Brushless Motor Drives and Motion Engines



EXLAR, USA – Electromechanical Actuators



NANOMOTION, Israel – Piezo Electric Motors and drives

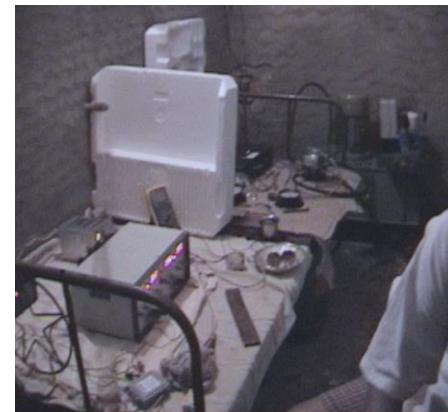


NACOL ACCUMULATORS, Japan – Hydraulic Accumulators



MONTALVO, USA – Tension Control Systems

Servocontrols First Servo Valve Test Setup at Home Garage in July 2002 at Belgaum, Karnataka
Promoters Deepak (sitting) & Dinesh Dhadoti (Standing)
(Servo valves of HAL /DRDO ground test under refurbishment)



SERVOCONTROLS Facility at Udyambag, Belgaum Started in 2006



SERVOCONTROLS Separate Aerospace facility started in 2009



**Servocontrols 100% EOU Unit Mfg. Facility/12 acres of
land/60,000 Sq feet/1st Phase**

**SERVOCONTROLS
AEROSPACE INDIA PVT. LTD.,
60,000 Sq. Ft.
MODERN MANUFACTURING FACILITY**



Servocontrols 100% EOU Unit Mfg. Facility/12 acres of land/60,000 Sq feet/1st Phase





SERVOCONS AT SERVOFEST-2K19

Total Staff: 250

Engineers: 105, Technicians: 80 , Sales & Marketing: 15, Others: 50

Growing at 10- 15 % every year

Promoters Background

Background of Deepak Dhadoti CMD-Servocontrols



- Mechanical Engineer passed in 1991.
- Got the first Prize from IISc, B'lore on National Level project for Computer Aided Design & Drafting of Hydraulic Cylinders in 1991
- Recruited by Moog Tewekesbury, UK, specialised in Controls engg
- Worked /Trained for Moog in Japan, France, Germany, UK, Italy, Hong Kong, India, USA in different level as program manager, Systems Manager. Settled in USA and returned to India in 2002
- Associated with Key Projects in India and Worldwide.
- Worked in Tech Center of Moog , East Aurora facility, help develop Hydraulic Servovalves, Actuators/Hydrostatic Pump solution and special future oriented designs.
- Returned to India and established Servocontrols company
- Delivered results once signed in, has excellent sustained success Record.

Background of Dinesh Dhadoti Director-Servocontrols

- Diploma in Mechanical Engineer
- Trained at MTS USA, Servo Technology And Research UK.
- Key accounts manager
- Worked with Indian Organizations, Companies from 1996



We have developed/MFD/Made to print actuation/Avionics systems
& Parts for Major OEM's of

- 1)Commercial Aircrafts
 - 2)Military Fighter Aircrafts
 - 3)Unmanned Aerial Vehicles (UAVs or Drones)
 - 4)Submarines
 - 5)Ship Building
 - 6)Missiles / Torpedoes
 - 7)Missile Launchers
 - 8)Radars
 - 9)Driver Training Motion Platforms (6Dof/3Dof)
 - 10)Ground Test Applications & Test Rigs
 - 11)Precision Parts for Aerospace and Defense Applications
- & MRO of all above.**

Core Products / components Design/ Mfg /MRO/Assembly & Testing/validation of

- Servo Valves and its parts
- Servo Actuators / FCA / TVC Actuators/EHA/Guide Vane control actuator and its parts
- Electromechanical Rotary and Linear Actuators
- Latch / Solenoid Valves and its parts
- Intelligent Manifold Block Systems & HPP and total Turnkey Projects/Systems
- Air Data Probes/Pitot Static Tubes/TAT Sensors
- MRO /Test rigs/Motion Platforms
- Electronics Systems and Wire Harnessing as per IPC 620 and IPC 610
- Total System Solution including Electronics

Existing Customers

- HAL - All plants
- DRDO – Hyderabad and all divisions
- VSSC – Tumba / ISRO/ SHAR (Satish Dhavan Space Center) – Sriharikota
- Voskhod Russia
- Air Head Quarters Delhi
- SBC (Ship Building Center)
- NSTL (Vizag)
- Bahrain (ASRI plant)
- UTC- UK/France/USA (Goodrich and now Collins Aerospace)
- IAI – Israel Aerospace actuation division, IAI-MALAT, MBT, ELTA
- Rafael – Iron Dome /MRSAM/LRSAM divisions

Long Term Projects : Working for Orders till 2035 (LTC signed)

Facilities

- In-house Mechanical /Electronics /Electrical Design Depts.
- State of the art 2/3/5 axes machine shop
- Ultra Precision Grinding/Honing/EDM/Laser weld
- Clean Room facility for Hydraulics and Electromechanical systems
- Electronics Lab with IPC 120 trained wire harness engineers and with Software Development Center
- Assembly and Test Shop
- Fabrication and Paint Shop
- Metrology Lab
- Servo Lab

Anti - Static Electronics Lab with Highly Trained Engineers



State of the Art Machine Shop 3/4/5 axes machining capability



Honing/Grinding & EDM Facility



Machine Shop German and Swiss Make Machines



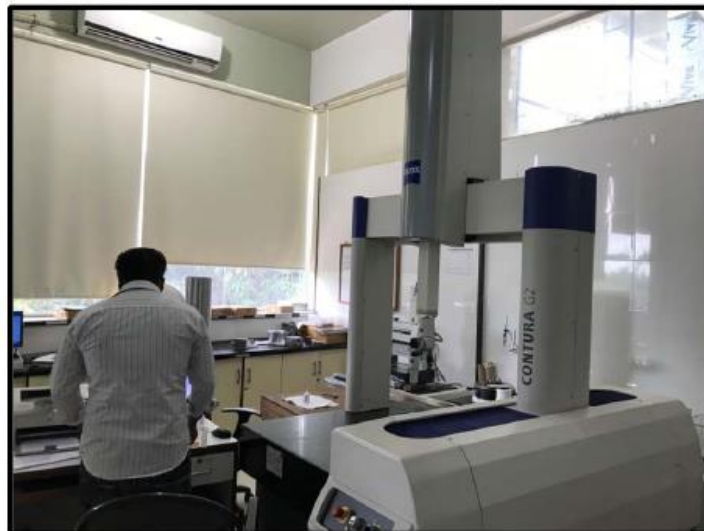
STUDER S33 CNC Universal
Cylindrical Grinding Machine



MAZAK 5-Axis Machine



Quality Control /Inspection Room with CMM & Contour



Clean Room Facility For Servo Valves

Servo Valve Test Facility



Servo Valve Assembly in Clean Room
Laminar Stand Class 10000



AS 9001 Rev D certificate



CERTIFICATE



This is to certify that

Servocontrols Aerospace (India) Pvt. Ltd.

Survey No. 683
Industrial Estate, Udyambag
Belgaum – 590 008
Karnataka
INDIA

as central function with the organizational units/sites as listed in the annex

has implemented and maintains a **Quality Management System** for its certification structure Several Sites.

Scope:

The Design & Development, Manufacture, Testing & Servicing of Servo Valves & Servo Actuators & Manifold Blocks for Aerospace applications. The Manufacture of Precision Machined Components for Aerospace Applications.

Through an audit, performed in accordance with AS9104/1, rev. 2012-01, it was verified that the management system fulfills the requirements of the following standard:

AS9100:2016

(technically equivalent to EN 9100:2016 and JISQ9100:2016)

Quality Management Systems - Requirements for Aviation, Space and Defense Organizations

Certificate registration no. 20003791 AS0016A
Date of original certification 2009-02-04
Date of certification 2018-02-26
Valid until 2021-02-25



DQS Inc.

Brad McGuire
Managing Director

Accredited Body: DQS Inc., 1130 West Lake Cook Road, Suite 340, Buffalo Grove, IL 60089 USA
Administrative Office: Dudson Quality Systems (India) Pvt. Ltd., 5th Floor, Anjaneya Techno Park,
147, HAL Airport Road, Kogihalli, Bangalore - 560 017 - India
DQS Inc. is accredited by ANAB under the ICOP scheme and recognized by the Americas Aerospace
Quality Group (AAQG).



Annex to certificate

Registration No. 20003791 AS0016A

Servocontrols Aerospace (India) Pvt. Ltd.

Survey No. 683
Industrial Estate, Udyambag
Belgaum – 590 008
Karnataka
INDIA

Business Relation #	Locations	Scope
50297143	Servocontrols Aerospace (India) Pvt. Ltd. Site 2, S. No. 297/1, Opp. Quest SEZ Village- Hattargi, Taluka-Hukkeri Dist- Belgaum– 591 243 Karnataka INDIA	The Manufacture of Precision Machined Components for Aerospace Applications.
20003791	Servocontrols Aerospace (India) Pvt. Ltd. Survey No. 683 Industrial Estate, Udyambag Belgaum – 590 008 Karnataka INDIA	The Design & Development, Manufacture, Testing & Servicing of Servo Valves & Servo Actuators & Manifold Blocks for Aerospace Applications.

This annex (edition: 2018-02-26) is only valid in connection with the above-mentioned certificate.

ISO Certificate for Systems Business



Test Rigs – Design & Development

SERVOCONTROLS involved in design and development of various types of test & Actuation systems those are used in

- Automotive testing
- Material / Component testing
- Aerospace Ground testing
- Civil / Construction

SERVOCONTROLS major product line in test market includes

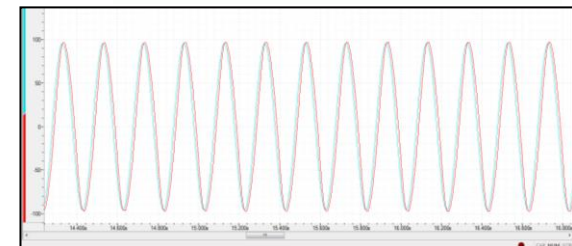
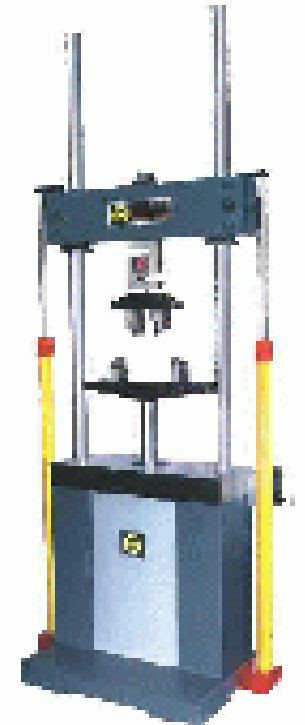
- Material Testing (UTM /CTM/Tensile)
- Structural testing
- Fatigue / Endurance / Life Cycle Test rigs
- Qualification & Performance Test rigs
- Evaluation Test rigs
- Actuation Systems etc.

Application: Automotive Rubber Component Testing

Year of Supply: 2005

System Specifications:

Parameters	Specifications
Capacity	35kN
Stroke	±75mm
Actuation	Hydraulic
Frequency	10Hz
Max. Velocity	3m/s
Modes of Control	Displacement control Load control
Test pattern	Sinusoidal , Triangular & Random



Till date total 22 systems are supplied to customer

Customer: HAL RWRDC - Bangalore

Application: Anti Resonance Isolation Spring (ARIS) Test rig

Year of Supply: 2008

System Specifications:

Parameters	Specifications
Capacity	50kN
Stroke	±50mm
Actuation	Hydraulic Actuator with load cell and built in position sensor
Control Modes	Force and Displacement rate controls



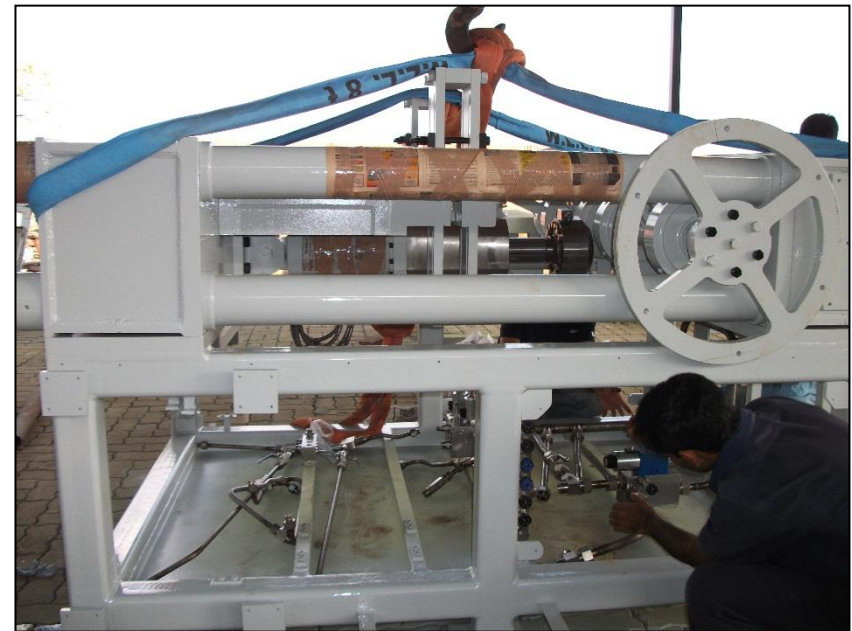
Customer: Goodrich Aerospace - Bangalore

Application: AIRBUS A320 Elevator Actuator Endurance test rig with Structural Simulation

Year of Supply: 2010

System Specifications:

Parameters	Specifications
Capacity	50kN
Stroke	±75mm
Actuation	Hydraulic Actuator with Skydrol oil compatibility
Frequency	10Hz
Max. Velocity	2m/s



Approved by International EHS and Goodrich internal EHS authority

Customer: Goodrich Aerospace - Bangalore

Application: Power Door Opening System (PDOS) Actuator Qualification and Production Testing

Year of Supply: 2011



Customer: HAL - Bangalore

Application: Kerosene based Test Rig to test Goodrich Refuel Shut Off valve for aircrafts.

Year of Supply: 2010



Customer: Rambal Limited

Application: Shock Absorber Testing

Year of Supply: 2011

System Specifications:

Parameters	Specifications
Capacity	35kN & 10kN
Stroke	±75mm
Actuation	Hydraulic Actuator with load cell and built in position sensor
Frequency	10Hz
Max. Velocity	3m/s



Customer: Goodrich Aerospace - Bangalore

Application: C-Duct Power Door opening System actuator Mechanical & Hydraulic Strength Testing

Year of Supply: 2012

Specifications:

Mechanical Loading Capacity: 3000 lbf

Hydraulic Loading Capacity: 12000 PSI

Testing Capabilities:

- Limit compressive / buckling load test
- Limit tensile load test
- Ultimate compressive / buckling load test
- Ultimate tensile load test
- Proof pressure test
- Burst pressure test



Customer: Suyash Automation and Engineering - Pune

Application: Automotive Leaf Spring Test rig

Year of Supply: 2012

System Specifications:

Parameters	Specifications
Capacity	150kN
Stroke	±150mm
Actuation	Hydraulic Actuator with load cell and built in position sensor
Control Modes	Cyclic Force and Displacement control



Customer: HAL - Bangalore

Application: Aircraft valve and Component Testing

Year of Supply: 2012



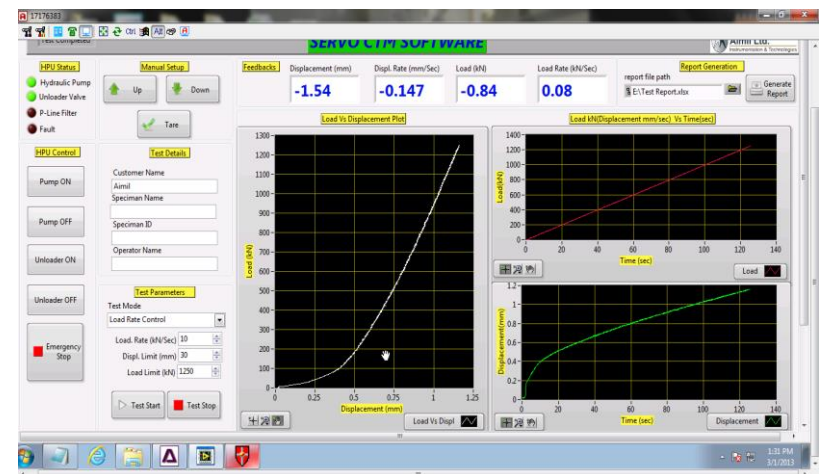
Customer: Aimil Limited – New Delhi

Application: Compression Testing

Year of Supply: 2013

System Specifications:

Parameters	Specifications
Capacity	100kN
Stroke	100mm
Actuation	Hydraulic Actuator
Frequency	2Hz
Control Modes	Force and Displacement rate control



Customer: GE India - Bangalore

Application: Burst Pressure Testing of Air reservoirs

Year of Supply: 20115



Hydraulic Power Unit with Water Glycol compatibility



Control & Data Acquisition System

Destructive Testing facility of pressure vassals as Hattargi-Plant approved by Government and GE India

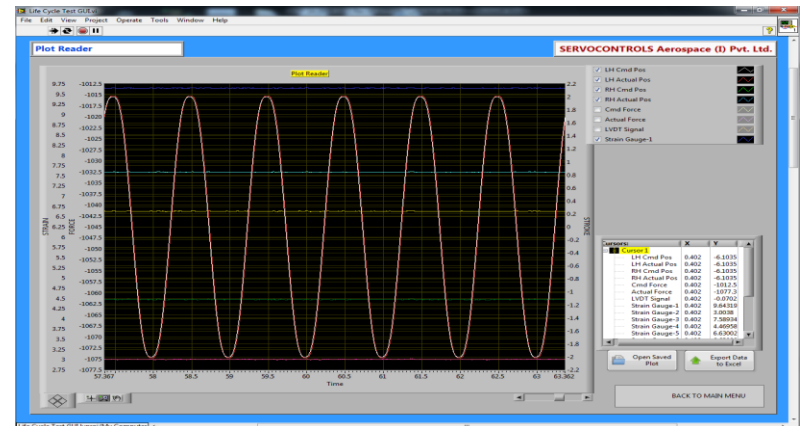
Customer: Goodrich Aerospace - Bangalore

Application: Life Cycle Testing of Aircraft Seats

Year of Supply: 2015

System Specifications:

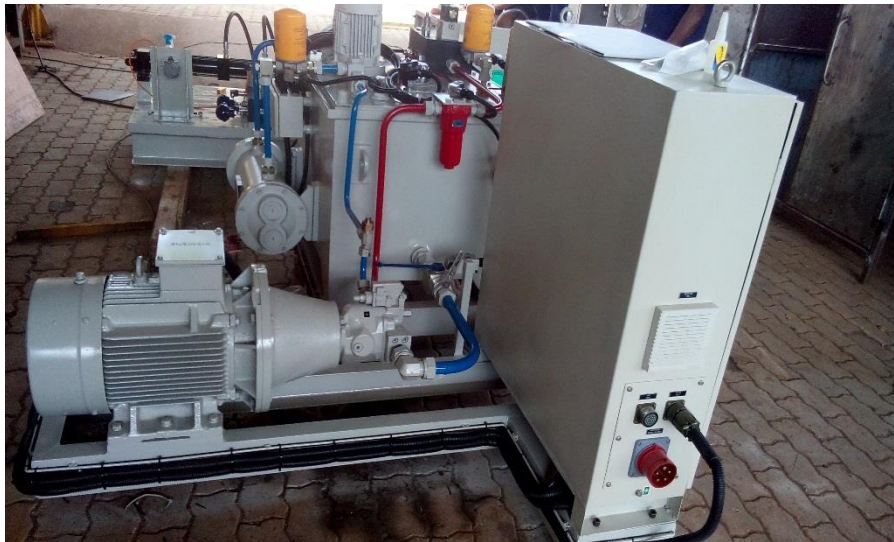
Parameters	Specifications
Capacity	1000 lbf
Stroke	18"
Actuation	Electromechanical Linear Actuator
Frequency	2Hz
Control Modes	Cyclic Force and Displacement control



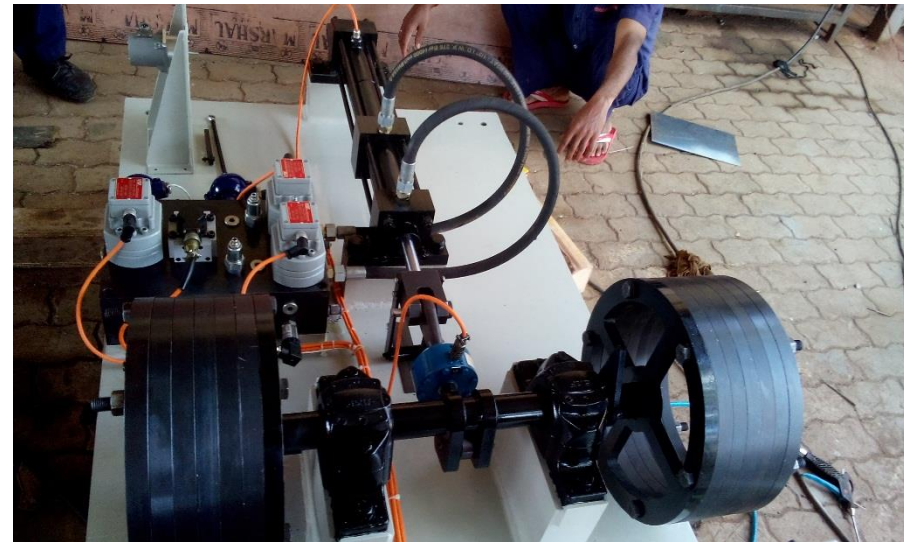
Customer: National Aeronautics Limited- Bangalore

Application: Servo valve and structural Static and Dynamic Simulation on Aircraft wings and fuselage

Year of Supply: 2016



Hydraulic Power unit



Test bed

Customer: Goodrich Aerospace - Bangalore

Application: A320 and Boeing 787 Power Door Opening System Actuator Test Rig

Year of Supply: 20116



Approved by International EHS and Goodrich internal EHS authority

Customer: Goodrich Aerospace - Bangalore

Application: A320 Power Door Opening System Power Pack Test Rig

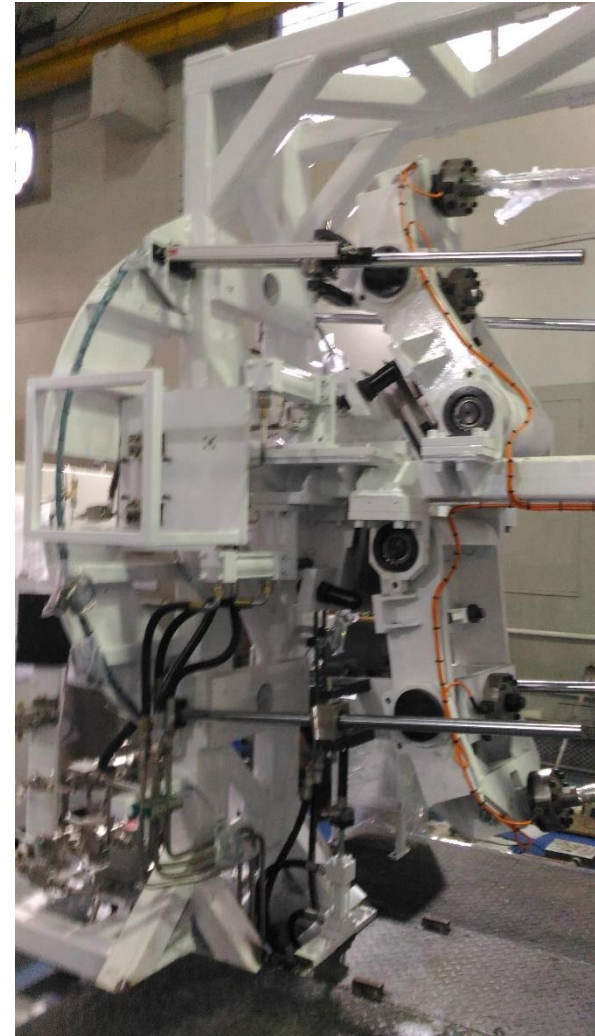
Year of Supply: 2016



Customer: Goodrich Aerospace - Bangalore

Application: Hydraulic Thrust Reverser System Qualification Test Rig

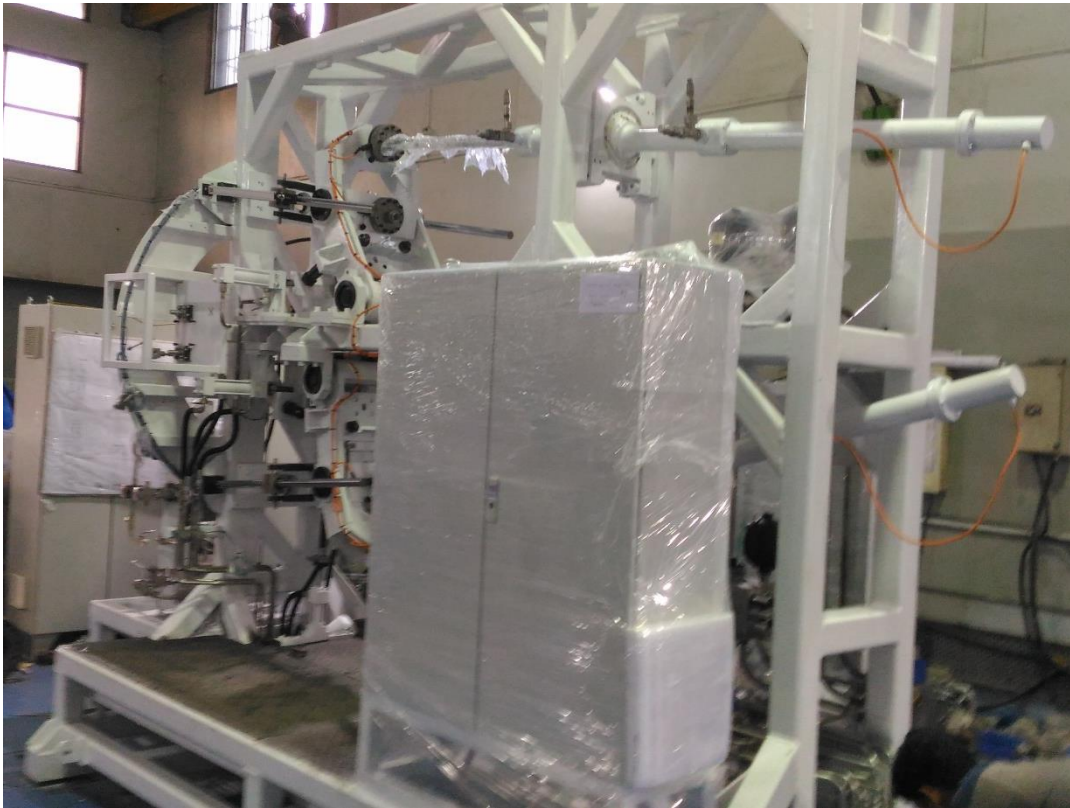
Year of Supply: 2019



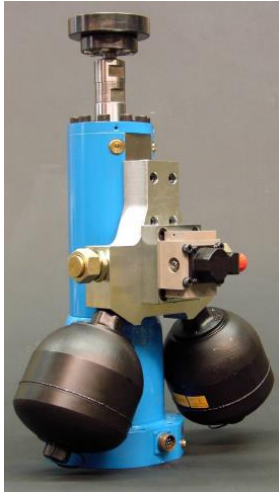
Customer: Goodrich Aerospace - Bangalore

Application: Hydraulic Thrust Reverser System Qualification Test Rig

Year of Supply: 2019



Servo Actuators



Hydraulics Power Units



Testimonials /Recognitions/ Credibility

Young Entrepreneur Award to Mr. Deepak Dhadoti CMD Servocontrols by Nobel Lauret Kailash Satyarthi and Chariman Emiratus Infosys, Mr. Narayan Murthy at TieCon, Feb -2015




Defence Minister Mr. Parrikar Congratulating Mr. Deepak Dhadoti MD
Servocontrols Sept. 2015



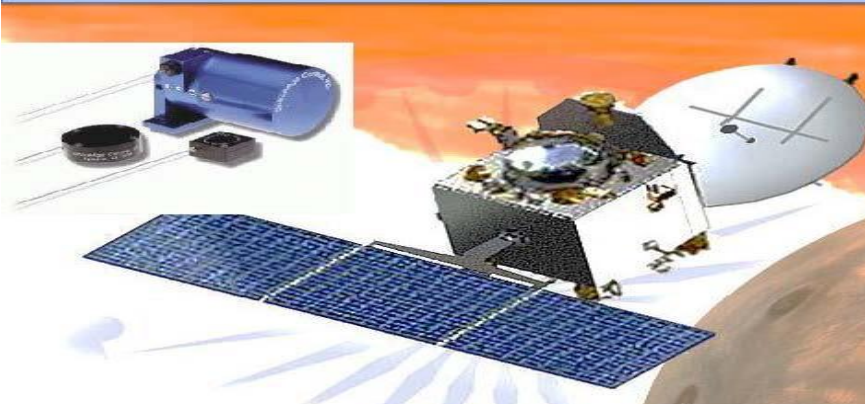
Padmashree, Padmavibhushan Dr. Raghunath Mashelkar Sir Honoring
Deepak Dhadoti MD Servocontrols Aerospace for his outstanding
contribution to Indian Aviation Industry on Jan 28 , 2013 at Belgaum





Indian Space Research Organisation
Mars Orbiter Mission

Application : For special deploy mechanism and Antenna positioning of "Mangalayaana" space application



**SERVOCONTROLS AEROSPACE INDIA PVT LTD,
BELGAUM
PROUD VENDOR FOR ISRO
CONGRATULATES ISRO FOR THEIR SUCCESSFUL
MARS ORBITER MISSION 24-09-2014**

Servocontrols Aerospace (I) Pvt Ltd Belgaum today celebrated the success of MARS (Mangalayaana). It is proud moment to every Indian and all Belgaumites as the Cryogenic Position sensors supplied by Servocontrols Aerospace have been used in this mission. We all wish ISRO many more success in coming days & wish to build large space industry in India

From: raghu [<mailto:raghu@istrac.gov.in>]

Sent: Friday, September 26, 2014 8:56 AM

To: Sandeep Damle

Subject: RE: SERVOCONTROLS AEROSPACE INDIA PVT LTD, PROUD VENDOR FOR ISRO CONGRATULATES ISRO FOR THEIR SUCCESSFUL MARS ORBITER MISSION 24-09-2014

dear sir,

thanks for your compliments this is a proud moment for all Indians and indian industries support for all ISRO projects.

**R.Raghunath
DGM MSG
ISTRAC**

Servocontrols, Belgaum, Karnataka

SERVOCONTROLS Supporting Indian Space Research Organization in “Mangalayaana” space application

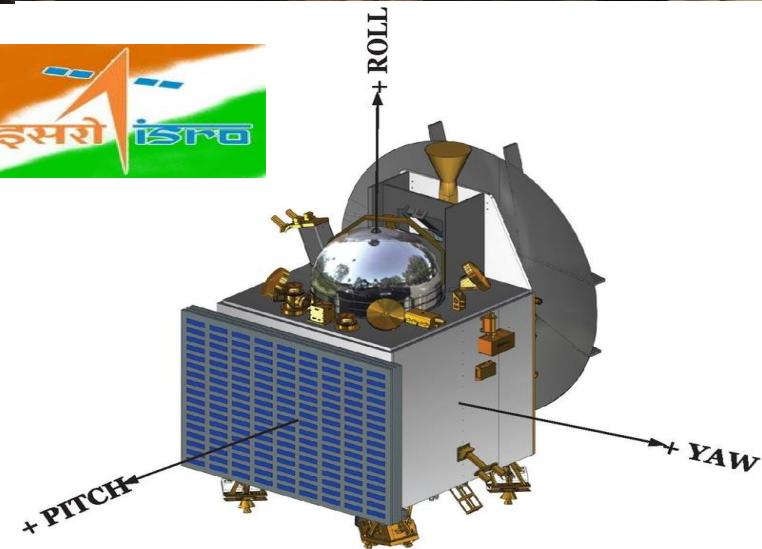


Supplied on
Sept.2013



Qty : 30 No's

Launched on Nov. 05 2013
from Shriharikota



View from +Pitch/+Yaw axis

Application : For special deploy mechanism of “Mangalayaana” space application

Mr. Avinash Chandar – SA to Raksha Mantri
Mr. R K Thyagi – Chairman HAL
falicitating our Mr. Shrinivas Mgr – Servocontrols for
LCA's Esteem Vendor Award



Servocontrols, Belgaum, Karnataka

Industrial Jewel Award (From Govt of Karnataka) (May - 2011)

Capt. **Goipinath/Deepak/Galangappa Patil (96 years old)**
B'lore **Belgaum** **(Gulbarga)**

Karnataka Kaigarika Ratna Prashasti



Award Presented by Capt. Gopinath, CEO Deccan Aviation along with Shivaraj Patil, Present Lok-ayukta of Karnataka and other Dignitaries

Best Company Award for 2012-13 Belgaum Chamber of Commerce and Industries
to Servocontrols and its employees



Servocontrols, Belgaum, Karnataka

Our Director Mr. Dinesh receiving the award from Dr. Saraswat for indigenization of critical technologies (past SA to Defense Minister and chief controller of DRDO)



Servocontrols, Belgaum, Karnataka

Meeting with Ratan Tata at Tata Sons, Bombay House on 14th October 2009
as Servocontrols was selected as Industrial Partner along with other Tata
Group of Companies



Thank You