

About CRISP

CRISP is established under Indo-German Cooperation agreement as an autonomous organisation of the Dept. of Technical Education and Skill Development, Govt. of M.P.

CRISP provides technical training and consultancy services for Industry Personnel, Government Officers, Faculties of academic and teaching institutions, Students and Jobseekers. CRISP is equipped with the state-of-the-art equipment and technology, latest software, qualified, trained and experienced trainers in the relevant fields.

CRISP has its head office in Bhopal and training centres at several national and international locations.

Other training programmes in Mechanical Engineering offered at CRISP are :

- AutoCAD
- CAD/CAM - CATIA/UG-NX/Pro-E
- AutoCAD Electrical/Mechanical/Civil
- CNC Technology
- Car Mechatronics
- Industrial Hydraulics
- Mechanical Maintenance
- Industrial Hydraulics and Pneumatics



Patron Clients of CRISP



Contact :

Course Co-ordinator

Mr. T.S Bedi

Mobile: 9981190088

e-Mail : tsbedi@crispindia.com

Sr. Manager (Marketing)

Mr. Faisal Jafri

Mobile : 9826334406

email : faisal@crispindia.com

Centre for Research and Industrial Staff Performance

(Established under Indo-German Technical Co-operation)
Opp. Manas Bhawan, Shyamla Hills, Bhopal – 462 002
Phone : +91 755 2661401, 4223702 Fax : 4220022

www.crispindia.com

TB 101/Issue 02/Rev.01

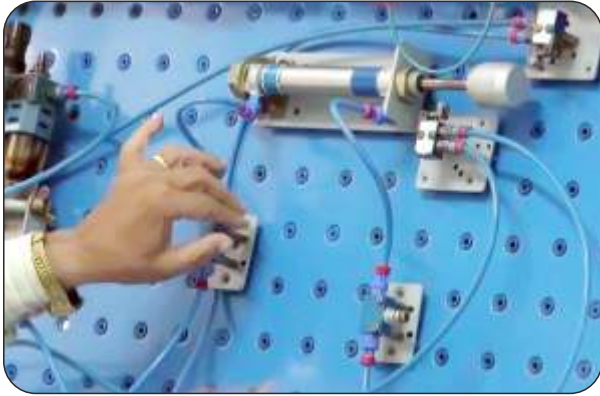
CRISP
ISO 9001 : 2008

INDUSTRIAL PNEUMATICS



...unleashing the full potential of men & machines

INDUSTRIAL PNEUMATICS



Introduction of Course

The new era of Industrial Automation has led to the acquisition of sophisticated electrical and mechanical controls, wherein reliability and dependability in operation are the most desired features. To maintain smooth operations of the Pneumatic equipment and controls, the essential skills desired by the process and manufacturing industries are the ability to read and interpret Pneumatic circuit diagrams and identify areas requiring trouble shooting in a minimized repair time.

CRISP has setup state of the art facilities in the field of Industrial Pneumatics to impart training in these areas and cater to the industry requirement.

Course Contents

- Fundamentals of Pneumatics
- Compressors :
Types : Reciprocating, Vane, Screw
- Air Dryers:
Necessity, Types : Descant, Refrigerator, condensate calculation, selection criteria
- Air Receiver :
Purpose/ Function, Size calculation
- Piping Network :
Characteristics of good installation, types, header size calculation
- FRL (Service Unit) :
Filter working, Air Regulator, Air Lubricator principle and selection
- Actuators :
Single Acting and Double Acting cylinder, size calculation, causes of failure
- Direction control valves :
Types : 2/2 ways, 3/2 ways, 5/2 ways, actuation mechanism : manual, mechanical, pilot solenoid, ISO symbols interpretation
- Flow Control :
One way Flow control valve, two way flow control valve, NRV

- Logic Valves and applications :
OR valve, AND valve, Pneumatic Timer, Sequencing valve
- Circuit design for simple applications
- Introduction to electro-pneumatics and relay logics.
- Principle, construction of solenoid valves
- Interpretation and design of simple Electro-Pneumatics Circuits.
- Introduction to proximity sensors
- Application of sensors in circuits
- Plant related pneumatic circuit reading
- Process valves pneumatic actuation : air to open and air close.
- General troubleshooting and maintenance of pneumatic systems.

Methodology

The programme consists of a mix of :

- Lectures and presentations
- Demonstrations
- Interactive discussions
- Hands-on practice

Pre-requisite

- Industry personnel with relevant experience.
- Passouts or students pursuing Degree/ Diploma in Mechanical/ Production/ Instrumentation Engineering or equivalent.

Duration

Full time: 5 working days (7 hours/day)

Part time: Four weeks (20 working days, 2 hours/day)

Course Fee

Kindly refer to our training calendar at www.crispindia.com or can be obtained from CRISP counselling desk

Mode of Payment

Cash / Online / Debit / Credit Card