

## Acknowledgements

Indian Plumbing Skills Council (IPSC) is a company incorporated under Section 25 of the Indian Companies Act 1956. The Plumbing Industry faces the mammoth challenge of huge gap between the supply of skilled labour and the demand of skilled labor. A very small percentage of the plumbing workforce is actually skilled in India.

Plumbing Industry since a long time has been awaiting an opportunity to skill its workforce, and through the mandate of the National Skills Development Corporation (NSDC) has got an excellent opportunity to train its workforce with the latest skills and technology and best practices in the Industry. IPSC has been formed as the official Plumbing Sector Skills Council (SSC) under the National Skill Development Corporation (NSDC), an umbrella organization created under Ministry of Skill Development and Entrepreneurship. NSDC is an initiative of the Govt. of India and the Vision of our Prime Minister Shri Narendra Modi to transform India as a hub of skilled manpower not only for India but for the World.

The IPSC acts as an accreditation and certifying body; and will work to fill the gap of skilled and unskilled labor in India. For this purpose we are partnering associations and organizations who share same vision, and work to upgrade the skills in deficit in the plumbing industry.

This Participant book has been developed for Plumber General Level 3 to drive competency based training for this role which specify the standard of performance an individual must achieve when carrying out a functions for execution of installation, repair and maintenance activities in Plumbing together with the knowledge and understanding of communications and discussions of work flow and reporting to senior about process flows.

In addition, the purpose of completion of this Qualification Pack is progress to Level 4.

This handbook will lead to successful roll out the skill development initiatives, helping greatly our stakeholders particularly trainees, trainers and assessors etc.

We acknowledge the support from Plumbing Industry in compiling this Handbook; it won't be possible without their contribution.

It is expected that this publication would meet the complete requirements of QP/NOS based training delivery, we welcome the suggestions from users, Industry experts and other stakeholders for any improvement in future.

31th December, 2016  
New Delhi

Dr. R.K. Somany  
Chairman, Governing Body  
Indian Plumbing Skills Council (IPSC)

## About this Book

This manual has been developed by IPSC to assist the trainee as a reference guide while undergoing the course Plumber General

The course is designed for participants who want to start a career in plumbing and is aligned to the :

- PSC/ N 0101 (Installation of basic sanitary fixtures, fittings, related piping and accessories)
- PSC/ N 0102 (Repair of basic plumbing systems)
- PSC/ N 0108 (Coordinate with the senior and other working team)
- PSC/ N 0109 (Maintain a healthy, safe and secure working environment)

Indian Plumbing Skill Council's qualification pack number PSC/Q 0104. It will help a fresher to learn the basics of plumbing and qualify as a certified Plumber General equivalent to Level -3 of the NVEQF/NVQF/NSQF. This course aims to develop a participant into a Plumber General, who is “responsible for installation, minor repair and maintenance of pipes and sanitary fixtures in housing, commercial and institutional setups.”

## Symbols Used



**Key Learning  
Outcomes**



**Setps**



**Time**



**Tips**



**Notes**



**Unit  
Objectives**

# Table of Contents

S No.	Modules and Units	Page No.
<b>1</b>	<b>Introduction</b>	<b>1</b>
	Unit 1.1 - Overview Of The Program	4
	Unit 1.2 - Opportunity in Plumbing	6
	Unit 1.3 - Safety Maintenance And Housekeeping	9
<b>2</b>	<b>Installation Of Basic Sanitary Fixtures (PSC/ N 0101)</b>	<b>15</b>
	Unit 2.1 - Tools, Equipment And Materials (Pre-Installation Activity)	17
	Unit 2.2 - Measurement (Pre-Installation Activity)	44
	Unit 2.3 - Pipes – Fitting, Cutting, Bending, Joining And Testing Of Pipelines (Pre-Installation And Installation Activities)	56
	Unit 2.4 - Plumbing And Sanitary Fixtures And Their Installation	85
	Unit 2.5 - Pumps And Their Installation	102
	Unit 2.6 - Water Meters	106
	Unit 2.7 - Assessment	108
<b>3</b>	<b>Repair Of Basic Plumbing Systems (PSC/ N 0102)</b>	<b>113</b>
	Unit 3.1 - Repairing Of Various Types Of Fitting And Fixtures	114
	Unit 3.2 - Assessment	127
<b>4</b>	<b>Maintenance And Servicing Of Plumbing Systems (PSC/ N 0112)</b>	<b>131</b>
	Unit 4.1 - Source Of Water	132
	Unit 4.2 - Treatment of Water	139
	Unit 4.3 - Types of Water Supply Systems	141
	Unit 4.4 - Drainage System	145
	Unit 4.5 - Common Terms In Plumbing	162
<b>5</b>	<b>Coordinating With Seniors And Working With Team (PSC/N0108)</b>	<b>169</b>
	Unit 5.1 - Team Management – Meaning and Concept	171
	Unit 5.2 - Resolving Conflict	175
	Unit 5.3 - Team Working Skills	176
	Unit 5.4 - Interact With Colleagues And Seniors Within And Outside The Team	180
	Unit 5.5 - Diaries And Log Reports	182
	Unit 5.6 - Assessment	184
<b>6</b>	<b>Maintaining A Healthy, Safe &amp; Secure Work Environment (PSC/N0109)</b>	<b>187</b>
	Unit 6.1 - Hazards	189
	Unit 6.2 - Hazard Analysis	196
	Unit 6.3 - Hazard Communication And Responsibilities	205
	Unit 6.4 - Safety Gears And First Aid	212
	Unit 6.5 - Safety Guidelines	215
	Unit 6.6 - Assessment	216
<b>7</b>	<b>Employability &amp; Entrepreneurship Skills</b>	<b>219</b>
	Unit 7.1 – Personal Strengths & Value Systems	223
	Unit 7.2 – Digital Literacy: A Recap	242
	Unit 7.3 – Money Matters	248
	Unit 7.4 – Preparing for Employment & Self Employment	259
	Unit 7.5 – Understanding Entrepreneurship	268
	Unit 7.6 – Preparing to be an Entrepreneur	290





# 1. Introduction

Unit 1.1 - Overview of the program

Unit 1.2 - Opportunity in plumbing

Unit 1.3 - Safety, Maintenance and Housekeeping



## Key Learning Outcomes

At the end of this lesson, students should be able to demonstrate appropriate knowledge, and show an understanding of the following:

1. Identify what will be discussed in the training program
2. Discuss the plumbing sector in India, and its sub-sectors
3. Identifying and developing component shapes for a plumbing activity.
4. Identify your Roles and responsibilities
5. Establish skills required for the job (behavioral, professional, technical and communication)
6. Maintain a safe, hygienic and secure working environment
7. Demonstrate how maintenance and housekeeping can be performed

## Unit 1 - Introduction

### Unit Objective

At the end of this lesson, students should be able to define & understand :

1. Identify the program topics
2. Know one and all
3. List expectations from the training
4. Identify and understand opportunities in plumbing
5. Understand the basic tasks and theories within the plumbing industry
6. Understand the job description and attributes of a Plumber General
7. Identify various skills required to perform the role of a Plumber General

## Unit 1.1 - Overview Of Program

**This training program will cover topics as per following National Occupational Standards:**

1. **Installation of basic sanitary fixtures (PSC/ N 0101)** - This unit is about installation of pipes and sanitary fixtures in housing, commercial and institutional setups.
2. **Repair of basic plumbing systems (PSC/ N 0102)** - This unit is about repair of pipes and sanitary fixtures in housing, commercial and institutional setups.
3. **Maintenance and servicing of plumbing systems (PSC/ N 0112)** - This units about maintenance and servicing of plumbing systems in housing, commercial and institutional setups.
4. **Coordinating with the senior and other working team (PSC/N0108)** - This unit is about communicating with colleagues and seniors in order to achieve smooth and hazard free work flow.
5. **Maintaining a healthy, safe and secure working environment (PSC/N0109)** – This unit is about monitoring your working environment and making sure it meets requirements for health and safety.



## Knowing Each Other

Let's Know Each Other:

1. Your Name
2. Your Location
3. Your favorite movies



Fig-PG-001 Representative Image

## Expectation Mapping

My expectations from the training program are: \_\_\_\_\_

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## Unit 1.2 - Opportunity in Plumbing

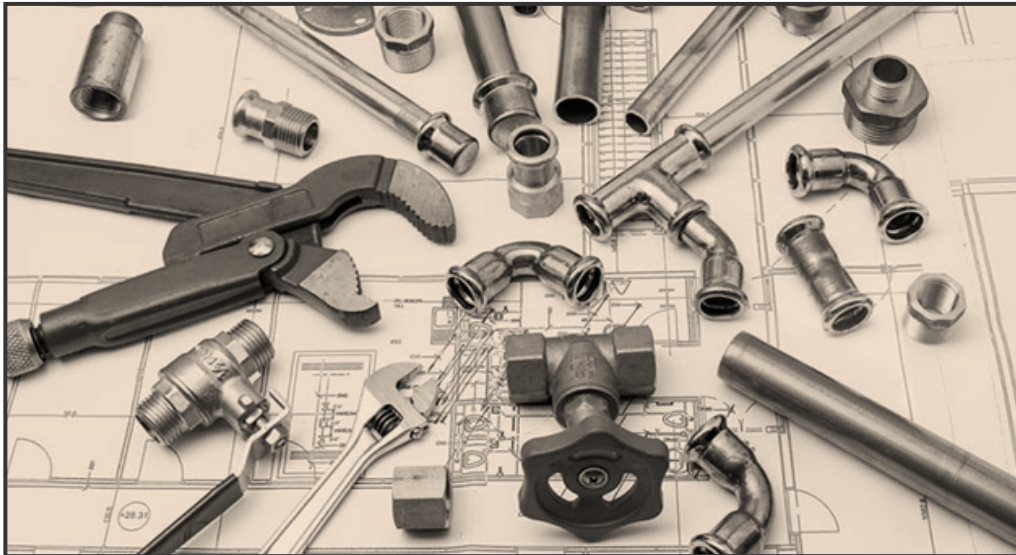


Fig-PG-002 Representative Image

1. The Plumbing Industry faces big challenge of skill gap between the availability and demand of skilled workforce.
2. India is among the few providential nations of the world where the working population is in far excess of the dependent (World Bank, 2011). Census (2011) placed a 430 million i.e. 35% of the population in the age group of 15-34 hereby have a working age population far exceeding its dependent. Plumbing industry has a market size of 23,300 Croress
3. Other than construction, the services of plumbers are required in the following sectors: Fire Fighting, Air- conditioning, Industrial Waste Management, Gas Supply, Sewage and drainage, Water Supply and Water Treatment
4. Orissa's Kendrapada district is home to more than 70% Plumbers
5. Only 10 % are organized, 90% of the total Plumbers are from the unorganized sector.
6. Most of the Plumbers learn their work on the job (unorganized OJT), they do not get any formal training
7. There are three main divisions in the Plumbing Industry – plumbing consultants, manufacturers of plumbing related products, contractors and plumbers in the construction industry