



Participant Handbook

Sector
Construction

Sub-Sector
**Real Estate and
Infrastructure Construction**

Occupation
SHUTTERING CARPENTRY

Reference ID: **CON/Q0304, Version 1.0**

NSQF Level 4



**Shuttering Carpenter -
System**

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Shri Narendra Modi
Prime Minister of India

“ Skilling is building a better India.
If we have to move India towards
development then Skill Development
should be our mission. ”



Certificate

COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

Construction Sector Skill Council

for

SKILLING CONTENT : PARTICIPANT HANDBOOK

Complying to National Occupational Standards of
Job Role/ Qualification Pack: 'Shuttering carpenter - System' QP No. 'CON/N0304 NSQF Level 4'

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CEO

CSDCI

About this book :

Construction industry is the second largest employer in India. As one of the leading avenues for employment in the country, the role played by this industry in the economic development of India is pivotal. However, despite its vast potential, the construction Industry faces a key challenge of shortage of skilled manpower. This hampers the progress of the industry, as the quality of constructed structure is poor and most projects failed to get completed within timelines.

There is a vast difference between the required skill and available skills of workers in the industry today. To reduce the skill gap, appropriate skilling of workforce needs to be carried out. This will not only empower the worker but also benefit the construction industry in terms of quality and productivity.

This Participant book is developed to impart training for the skill and knowledge required to work as a Shuttering Carpenter-system in construction industry. It is designed based on Shuttering Carpenter-System Qualification Pack under the National skill qualification framework. It comprises of the following NOS/ topics.

- Make wooden shutters used in shuttering carpentry
- Assemble and dismantle system formwork for RCC structures
- Carry out quality checks for shuttering works
- Work effectively in a team to deliver desired results at the workplace
- Plan and organize work to meet expected outcomes
- Work according to personal health, safety and environment protocol at construction site

This book is designed considering the lower educational background of the construction worker. Therefore, special efforts have been made to explain the concept required for the job mostly through photos and illustrations.

Symbols Used



Key Learning
Outcomes



Steps



Time



Tips



Notes



Unit
Objectives

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UNIT 1.3: Shuttering Carpenter – System As a Job Role

Unit Objectives

At the end of this unit, you will be able to:

1. Know role and duties of a shuttering carpenter - system
2. Know personal and professional attributes under the shuttering carpentry occupation
3. List QP and NOS details of shuttering carpenter-system programme
4. Know about career path as a shuttering carpenter - system

1.3.1 Role of a Shuttering Carpenter - System

- Shuttering Carpentry is one of the most important occupation/ skill area of construction.
- A Shuttering Carpenter should possess skills like making of wooden shutter board, erecting shuttering board for column, beam, slab, wall, foundation and other various structures. Shuttering carpenter should be able to assemble and dismantle formwork for RCC structure and carryout quality checks in terms of stability of the erected formwork all as per health, safety and environmental protocol
- Shuttering Carpenter has to deal with his assistants; his colleagues and tradesmen with related skills (i.e. masonry, bar-bending etc.) and has to co-ordinate with the activities of the other tradesmen also.
- Shuttering carpenter should have proficiency in use of different tools, knowledge of commonly used construction material, ability to identify quality of shuttering materials, techniques of using latest steel shuttering.
- Shuttering carpenter have to plan and organise the work and achieve desired results within available resources



Fig 1.3.1: Shuttering work at site

1.3.2 Duties of a Shuttering Carpenter - System

At any construction site, the shuttering carpenter plays a vital role such as:

- Read & understand sketches, simple architectural/structural drawings and formwork scheme drawings.
- Sort out and use the material like, shuttering plates, plywood board, wooden planks,

supporting components etc. required for shuttering work.

- Measure, mark, cut, make and place the shuttering material in position as per the requirement.
- Fill the gaps as per suitability in shuttering work wherever required.
- Perform quality checks as per drawings/requirements.
- Remove the shuttering (De-shuttering) after the stripping time as applicable.
- Finally remain present during concreting to set in position the displaced shuttering member.

1.3.3 Personal Attributes For Job Role of Shuttering Carpenter-System

A shuttering carpenter-system in addition to his skills should also possess certain personal attributes such as:

- Ability to work in a well-organized and accurate manner
- Awareness of safety issues, especially when working at heights and carrying loads
- Ability to plan and organise of his own work
- Ability to work as a part of team
- A good level of fitness
- Awareness of personal hygiene
- Hard working and reliable
- Courteous and dedicated
- Good Communication Skills

1.3.4 QP And NOS Details For Shuttering Carpenter - System

Qualification pack (QP) consists of a set of National Occupation Standards (NOS) which describes the desired outcomes in order to successfully perform the function and the knowledge required for the same.

This programme is based on a Qualification pack called shuttering carpenter - system. The qualification pack for Shuttering carpenter - system is placed at level 4 in the National skill qualification framework or NSQF.

The qualification pack code for Shuttering carpenter - system is CON/Q0304. National occupational standards/NOS under these qualifications are shown in table given below. Shuttering working in construction projects expected to perform certain functions/ task under each NOS which are listed below:

NOS CODE	Major Function/Task
CON/N0302	Make wooden shutters used in shuttering carpentry
CON/N0303	Assemble and dismantle system formwork for RCC structures
CON/N0304	Carry out quality checks for shuttering works
CON/N8001	Work effectively in a team to deliver desired results at the workplace
CON/N8002	Plan and organize work to meet expected outcomes
CON/N9001	Work according to personal health, safety and environment protocol at construction site

National skill qualification frame work - NSQF

Through the national policy on skill development 2009 India recognized the need for development of a national qualification framework. The national skill qualification framework NSQF came into being as per the Gazette Notification no 8/06/2013 dated 27th Dec 2013. NSQF is a quality assurance framework

It is an outcome based approach and each level in the NSQF is defined and described in terms of competency levels that would need to be achieved. The National Skill Qualification Framework is comprised of 10 levels; each represents a different level of competency level 1 represent the lowest competency. Level 10 highest competency. Competency means the proven ability to use acquired knowledge, skills and personal and social abilities in discharge of responsibilities of a job role.

It is important to note that the NSQF levels are not directly related to years of study.

NSQF organizes qualifications according to a series of levels of knowledge, skills and aptitude. These levels are defined in terms of learning outcomes which the learner must possess regardless of whether they were acquired through formal, non-formal or informal learning.

Each level of NSQF described by a statement of learning outcomes in five domains known as level descriptors. These five domains are:

1. Process
2. Professional knowledge
3. Professional skill
4. Core skill
5. Responsibility.

The level mentioned below in the career progression chart corresponds to NSQF level 4. The shuttering carpenter system is assigned level 4 based on the above five criteria.

The Job roles corresponding to each level under shuttering carpenter occupation is as given below.

1.3.5 Occupational Map For Shuttering Carpentry

Career path for a shuttering carpenter is as given in the following chart

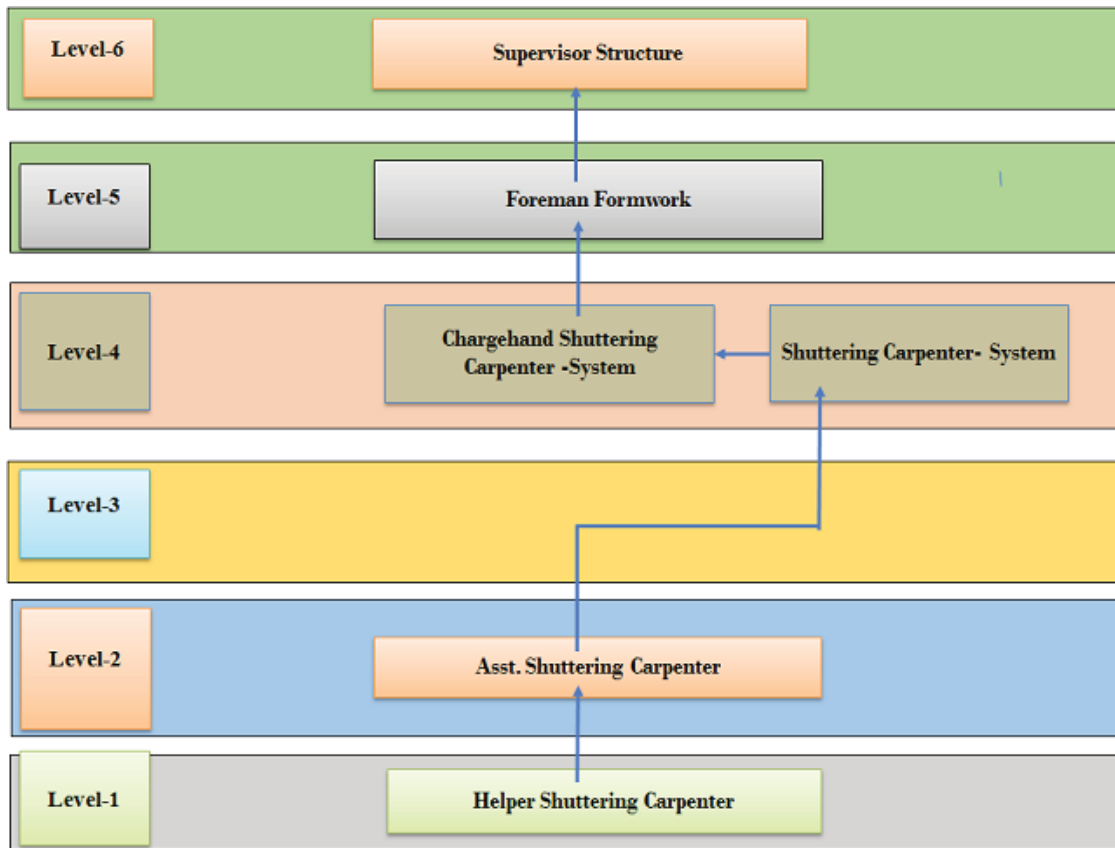


Fig 1.3.2: Career progression for shuttering carpentry occupation

Career progression chart

Table shows Education & work experience required the career progression for shuttering carpenter – system

Education & work experience required for further career progression for shuttering carpenter – system		
Job role	Education	Experience
Chargehand – Shuttering carpenter system	8th standard pass	3 years site experience as a certified Shuttering carpenter system
Foreman formwork	10th standard pass	3years site experience as a certified Chargehand – Shuttering carpenter system
Supervisor structure	12th standard pass	5 years site experience as a certified Foreman Concrete / Foreman Reinforcement / Foreman Formwork/Foreman Scaffolding

UNIT 1.4: Training For Shuttering Carpenter - System

Unit Objectives

At the end of this unit, you will be able to:

1. Understand the purpose of training
2. Know about mode and duration of training program
3. Understand the benefits of training, skill card and certification.

1.4.1 Mode And Duration of Training

The training program is based upon the qualification pack of Shuttering Carpenter-System. This is a NSQF level 4 qualification in the occupation of Shuttering Carpentry in the sub sector of real state and infrastructure construction. This implies that after passing this course you shall be a qualified NSQF level 4 workman who has the required skill set to find work in the real state and infrastructure projects. The mode of training is:

- Classroom sessions
- Practical sessions



Fig 1.4.1: Classroom session



Fig 1.4.2: Practical session

The standard duration of this training program is 400 Hrs. of which 320 Hrs is devote to hands on training and the rest 80 Hrs on theoretical learning.

1.4.2 Benefits After Training

The training program will enable an individual to:-

- Measure and mark on formworks materials
- Perform cutting of wood/plywood by using power saw.
- Make shutter moulds and panels

- Perform assembling and dismantling of shutter panels
- Knowledge about the quality related to work
- Understand the safety practices
- Communicate effectively in team.
- Organize the resources.

1.4.3 Skill Card And Certification

After successful completion of training and passing the assessment you will be issued a certificate. This will facilitate you to get an employment as a Shuttering Carpenter – System in construction companies or independently. This certificate will help you to get job and earn better wages than an untrained person.



Fig 1.4.3: Skill card



Fig 1.4.4: Skill certificate

Notes



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Notes



A large rectangular area with an orange border containing 25 horizontal lines for writing notes.