



Technical Report  
Document Number ESS-0022919  
Date Oct 20, 2015  
Revision 1  
State Released

---

---

## Interface Control Document Target Systems- Accelerator Systems

---

---

European Spallation Source ESS AB  
Visiting address: ESS, Tunavägen 24  
P.O. Box 176  
SE-221 00 Lund  
SWEDEN

[www.esss.se](http://www.esss.se)

Technical Report  
Document Number ESS-0022919  
Date Oct 20, 2015

## DOCUMENT REVISION HISTORY

<b>Revision</b>	<b>Reason for revision</b>	<b>Date</b>
1	New Document	2015-01-09

<b>List of Authors</b>	<b>List of Reviewers</b>	<b>List of Approvers</b>
Kristoffer Sjögreen	Tom Shea	Ulf OdénOden, Ulf

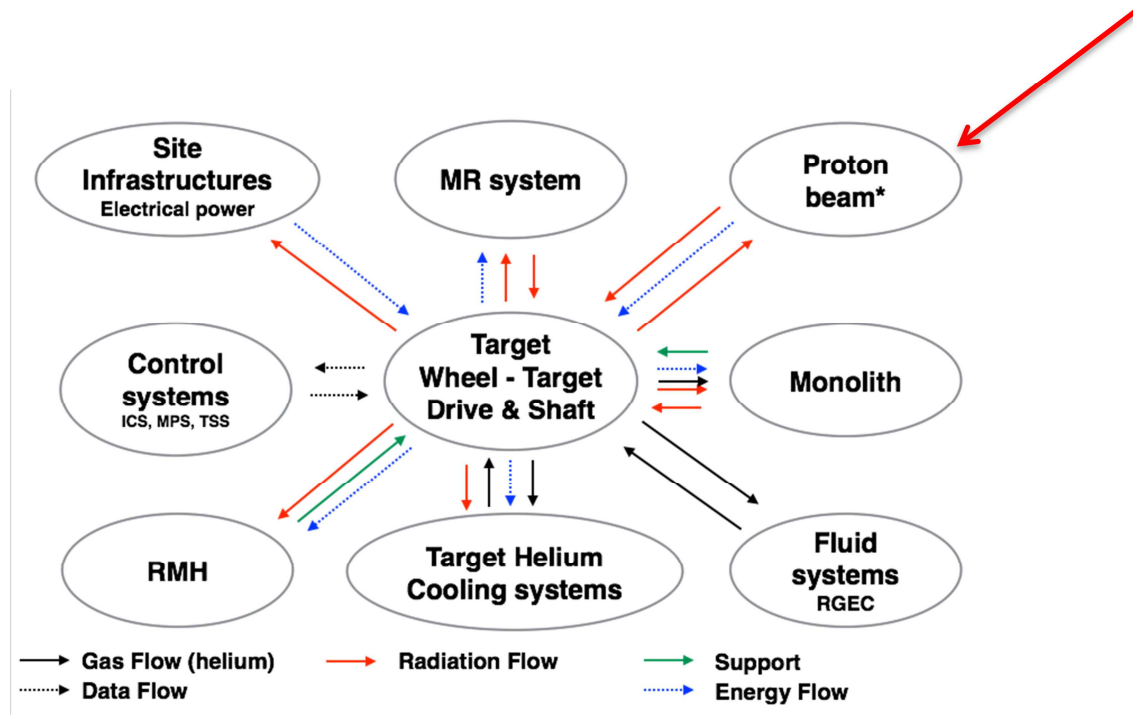
## TABLE OF CONTENTS

<b>1. Introduction.....</b>	<b>4</b>
<b>2. Interface Agreement .....</b>	<b>5</b>
2.1 Requirements imposed on the Accelerator system by Target.....	5
2.2 Requirements imposed on the Target by the Accelerator system .....	5
<b>3. References .....</b>	<b>5</b>

## 1. INTRODUCTION

This document describes and defines interfaces between Target Wheel, Drive and Shaft Systems and Accelerator Systems. These interfaces represent part of the interfaces between Target Station and Accelerator. In this document interfaces are described according to [1].

In the figure below, interfaces related to Target Wheel, Drive and Shaft system are illustrated. Target Wheel, Drive and Shaft Systems description and requirements according to [2].



## 2. INTERFACE AGREEMENT

Description	Reference
Requirements imposed on the Accelerator system by Target	Section 2.1
Requirements imposed on the Target by the Accelerator system	Section 2.1

### 2.1 Requirements imposed on the Accelerator system by Target

### 2.2 Requirements imposed on the Target by the Accelerator system

ID	Wheel-901	Beam Parameters
<b>Requirement</b>	Beam parameters shall be according to ref [4].	
<b>Rationale/Reference</b>	Design.	

ID	Wheel-902	Beam Instrumentation Plug
<b>Requirement</b>	Accelerator Systems shall specify the luminescent coating on Beam Entrance Window surface necessary for the performance of the Beam Instrumentation Plug, and Target shall apply it.	
<b>Rationale/Reference</b>	Performance	

ID	Wheel-903	Beam Instrumentation Plug
<b>Requirement</b>	Accelerator Systems shall specify the marks and fiducials on Beam Entrance Window surface necessary for the performance of the Beam Instrumentation Plug, and Target shall apply these.	
<b>Rationale/Reference</b>	Performance	

## 3. REFERENCES

1. ESS-0002917 Interface Management Plan
2. ESS-0020435 SDD-req; System Description Document Target Wheel, Drive and Shaft (Requirements and functions)
3. ESS- 2013-001 Technical Design Report
4. ESS-003310 Beam on Target Requirements
5. ESS-0034495 Design Beam Footprints for the Accelerator Target Interface