



**PRODUCT MANUAL FOR
FLOOR SPRINGS (HYDRAULICALLY REGULATED)
FOR HEAVY DOORS
ACCORDING TO IS 6315: 1992**

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

1.	Product	:	IS 6315: 1992
	Title	:	Floor Springs (Hydraulically Regulated) for Heavy Doors
	No. of Amendments	:	1
2.	Sampling Guidelines:		
a)	Raw material	:	As per clause 5 and Table 1 of IS 6315: 1992
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	Floor springs – 1 set for all tests
3.	List of Test Equipment	:	Please refer ANNEX – B
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – C
5.	Possible tests in a day:		
	Licence is operated on factory testing basis and hence all tests shall be carried out in factory		
6.	Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 6315: 1992 with the following scope:		
	Name of the product	Floor Springs (Hydraulically Regulated) for Heavy Doors	
	Type		
	Overall dimensions of floor spring assembly		

ANNEX A

Grouping Guidelines

1. IS 6315: 1992 covers Floor Springs (Hydraulically Regulated) for Heavy Doors which are categorized as under:

- a) Type of floor springs based on operation:
 - i) Single action floor spring - Right hand floor spring
Left hand floor spring
 - ii) Double action floor spring
- b) Dimension and tolerances of floor springs is as per agreement between the purchaser and the manufacturer.

2. Considering the above, following grouping guidelines is developed for GoL/CSoL:

- a) One sample of floor spring of each overall dimension from each type i.e. single action and double action shall be tested for all requirements to cover floor spring of that overall dimension and type in the scope of licence.
- b) From single action floor spring, either right-hand floor spring or left-hand floor spring shall be tested to cover both right-hand and left-hand floor spring.

3. The Firm shall declare the varieties they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

4. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation, to the extent possible.

ANNEX B**List of Test Equipment***Major test equipment required to test as per the Indian Standard*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Dimension and tolerance (Clause 7) (As per agreement between the purchaser and the manufacturer)	<ul style="list-style-type: none"> - Vernier calliper - Micrometer - Radius gauge - Plug gauge - Thread ring and plug gauge
2.	Construction (Clause 8)	<ul style="list-style-type: none"> - Conditioning chamber to maintain temperature of 49 °C and – 10 °C
3.	Performance requirements (Clause 9)	<ul style="list-style-type: none"> - Endurance test setup with operation of door leaf of 125 kg at the rate of 6 to 8 operation per minutes with counter to measure the operations at 90° from the original position (As specified) - Angle Protractor - Stop watch - Door opening force measurement arrangement such as spring balance etc.

The above list is indicative only and may not be treated as exhaustive

ANNEX B

Scheme of Inspection and Testing

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipment.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. LABELLING AND MARKING – As per the requirement of IS 6315: 1992

4. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

4.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

5. REJECTIONS – Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods			No. of samples	Frequency	Remarks
		Clause	Reference				
3	Material	3, Table 1	IS 6315	S	One	Each consignment	##
6	Manufacture and construction	6.1, 6.2	IS 6315	-	Each floor spring	-	-
7	Dimensions and tolerance	7	IS 6315	R	Each floor spring	-	-
8	Construction	8.1 to 8.7	IS 6315	R	Each floor spring	-	-
9	Performance Requirements						
	Performance test	9.2, 9.3,9.4	IS 6315	R	Each floor spring	-	-
	Endurance Test	9.1	IS 6315	R	One	Once in six months for each type of floor spring	@@
10	Workmanship and finish	10	IS 6315	R	Each floor spring		-
11	Workmanship and finish	11.1, 11.2	IS 6315	R	Each floor spring		-

Further testing is not required if each consignment received is accompanied with test certificate or ISI marked. The product which is covered under mandatory certification of BIS shall be ISI marked and received with manufacturers test certificate.

@@ In case of failure of sample, marking shall be stopped. Marking may be resumed only after passing of two improved lots in endurance test. Record of such testing shall be maintained.

Note-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.