



SC-R FRP BEAM AND COLUMN DESIGN TABLES

1. IDENTIFICATION

Product Name:	SC-R Composite Fibreglass Reinforced Polymer (FRP)
Recommended Use:	Building material
Supplier:	STAIRCARE AUSTRALIA PTY LTD ABN. 11 301 815 399
Address:	2/84 Old Pittwater Road Brookvale NSW 2100
Phone:	+61 2 9939 3838

2. Mechanical Properties of Pultruded FRP Products

The design guide outlines the SC-R mechanical properties that pultruded FRP products. Please refer to the table below:

Minimum Required Characteristic Mechanical Properties for FRP Composite Shapes

Mechanical Property	Minimum Requirement	ASTM Test Method
Longitudinal Tensile Strength	207 MPa	D638
Transverse Tensile Strength	48 MPa	D638
Longitudinal Tensile Modulus	20.7 GPa	D638
Longitudinal Compressive Strength	207 MPa	D6641
Longitudinal Compressive Modulus	20.7 GPa	D6641
In-Plane Shear Strength	65 MPa	D5379
In-Plane Shear Modulus	3.1 GPa	D5379
Interlaminar Shear Strength	34 MPa	D2344
Longitudinal In-plane Pin Bearing Strength	160 MPa	D953a
Transverse In-plane Pin Bearing Strength	124 MPa	D953a

3. Standards and calculations

The calculations presented in this edition of the manual are based on the ANSI/ACMA Design Code, which is widely recognized and accepted as a comprehensive industry standard. By adhering to these calculations, designers can confidently develop structurally sound and compliant pultruded beam designs.

However, it is crucial to note that design standards may vary based on specific project requirements, local regulations, and industry best practices. Therefore, it is recommended to consult with Staircare Composites specialists and relevant authorities to ensure the appropriateness and compliance of design solutions.

Throughout this manual, we aim to provide clear and concise guidance on pultruded beam design, including design considerations, load calculations, structural analysis, and connection details. The information provided is intended to assist professionals in optimizing the performance and durability of composite structures.

We encourage users to provide feedback and suggestions for improvement as we strive to continuously enhance the manual's content and address emerging industry trends. Together, we can further advance the knowledge and application of composite materials in the construction industry.

4. Limit States Design Approach

This standard adheres to the limit states design (LSD) methodology, employing the Load and Resistance Factor Design (LRFD) format.

Strength limit states (ULS) ensure structural integrity under the most severe loading conditions anticipated during the structure's service life. Conversely, serviceability limit states (SLS) address the structure's performance under typical service loads.

To guarantee the non-violation of any pertinent limit state, structural members, connections, and systems must be dimensioned appropriately when subjected to applicable load combinations.

The design table incorporates a safety factor of 3 for short-term loading conditions.

5. Nominal Loads

The following nominal loads shall be considered in accordance with ANSI/ACMA standards:

- **Dead Load (D):** Weight of permanent construction elements such as walls, floors, roofs, ceilings, fixed partitions, stairways, and fixed service equipment.

- **Ice Load (Di):** Weight of ice accumulation on exposed surfaces.
- **Earthquake Load (E):** Seismic forces acting on the structure.
- **Fluid Load (F):** Hydrostatic pressure from well-defined fluids with specified maximum heights.
- **Flood Load (Fa):** Forces exerted by floodwater on the structure.
- **Lateral Earth Pressure (H):** Pressure from soil, groundwater, or bulk materials.
- **Live Load (L):** Occupiable loads due to building use, including impact but excluding environmental loads.
- **Live Load on Roof (Lr):** Loads on roofs during maintenance or due to movable objects and people.
- **Rain Load :** Uniform load imposed by rainfall, excluding ponding.
- **Snow Load (S):** Uniform and drifted snow loads on roofs.
- **Self-Straining Force (T):** Internal forces generated within the structure itself.
- **Wind Load (W):** Forces exerted by wind on the structure and its exposed elements.
- **Wind-on-Ice Load (Wi):** Combined wind and ice load acting on the structure.

6. Load Combinations for Strength Limit States

Structures, structural members, connections, and foundations shall be designed such that their design strength equals or exceeds the required strength determined using the following factored load combinations in accordance with ANSI/ACMA standards:

Combinations:

Equation	Description
1.4D	Dead load only
1.2D + 1.6L + 0.5(Lr or S or R)	Dead load + 1.6 times live load + 0.5 times the larger of roof live load (Lr), snow load (S), or rain load (R)
1.2D + 1.6(Lr or S or R) + 1.0L or 0.5W	Dead load + 1.6 times the larger of roof live load (Lr), snow load (S), or rain load (R) + 1.0 times live load or 0.5 times wind load (W)

$1.2D + 1.0W + 1.0L + 0.5(L_r \text{ or } S \text{ or } R)$	Dead load + 1.0 times wind load + 1.0 times live load + 0.5 times the larger of roof live load (L_r), snow load (S), or rain load (R)
$1.2D + 1.0E + 1.0L + 0.2S$	Dead load + 1.0 times earthquake load (E) + 1.0 times live load + 0.2 times snow load (S)
$0.9D + 1.0W$	0.9 times dead load + 1.0 times wind load
$0.9D + 1.0E$	0.9 times dead load + 1.0 times earthquake load

7. Load Combinations for Serviceability Limit States

Structures, structural members, connections, and foundations should be designed considering the following service load combinations to ensure functionality under normal use conditions:

Short-Term Effects:

- For serviceability limit states with visually objectionable deformations or drifts, repairable damage to finishes, and similar short-term effects:
 - **D + (L or 0.5 S)**
 - **D + 0.5L + 0.4W**
 - **D** represents dead load.
 - **L** represents live load.
 - **S** represents snow load.
 - **W** represents wind load.

Long-Term Effects:

For serviceability limit states with long-term effects, such as creep or differential settlement:

- **D + 0.5L**

8. Design Strength Equation

Design Strength Equation:

The structural design strength, R_u , must be at least equal to the required strength determined using the following equation:

$$R_u \leq \lambda \phi R_n$$

where:

- R_u is the design strength of the member or connection.
- λ is the time effect factor accounting for long-term loading effects (creep, shrinkage, etc.).
- ϕ is the resistance factor reflecting uncertainties in design and material properties.
- R_n is the nominal resistance of the member or connection adjusted for end-use conditions.

Time effect factors , λ

Load Combination (Equation)	Description	Time Effect Factor (λ)
1.4D (Permanent Load) (1.5-1)	Dead load only	0.4
1.2D + 1.6L + 0.5(Lr or S or R) (1.5-2)	Live load + larger of roof live, snow, or rain	0.8 (Occupancy live)
		0.6 (Storage live)
		1.0 (Impact)
1.2D + 1.6(Lr or S or R) + (0.5L or 0.5W) (1.5-3)	Live or wind load in addition to live, roof, snow, or rain	0.75
1.2D + 1.0W + 0.5L + 0.5(Lr or S or R) (1.5-4)	Wind load + live + larger of roof live, snow, or rain	1
1.2D + 1.0E + 0.5L + 0.2S (1.5-5)	Earthquake load + live + snow	1
0.9D + 1.0W (1.5-6)	Wind load on reduced dead load	1

0.9D + 1.0E (1.5-7)	Earthquake load on reduced dead load	1
Flood loads	-	0.75
Atmospheric ice loads	-	0.75

The design tables incorporate a combined factor of $\lambda\phi = 1/3$. the $\lambda\phi$ shall be refined according to the load type and dominant failure model

Refining the Combined Factor $\lambda\phi$:

1. Consider Load Type and Dominant Failure Mode:

- Load Type: Different load types (dead, live, wind, earthquake) have varying durations and effects on the structure. Consequently, appropriate time effect factors (λ) differ across load combinations.
- Dominant Failure Mode: The critical failure mode for each load combination (e.g., yielding, rupture, creep) also influences the choice of resistance factor (ϕ).

2. Determine Individual Factors:

- Time Effect Factor (λ): Refer to relevant standards or codes to determine the appropriate λ values based on the load type and duration in each combination.
- Resistance Factor (ϕ): Similar to λ , consult standards or codes for ϕ values considering the material, failure mode, and connection type involved.

3. Calculate Refined $\lambda\phi$:

Multiply the individual λ and ϕ values for each load combination to obtain the refined $\lambda\phi$ factor. This refined value will better reflect the specific behavior and risks associated with each combination.

Example:

Suppose you have a load combination of 1.2D + 1.6L (dead load + live load). Using an appropriate standard, you may find $\lambda = 0.8$ for live load and $\phi = 0.9$ for yielding in tension. In this case, the refined $\lambda\phi$ for this combination would be $0.8 \times 0.9 = 0.72$.

Hence considered $1/3$ is a conservative approach.

4. Apply Refined Values or use the conservative approach:

- Use the calculated $\lambda\phi$ values in your design calculations for each specific load combination.
- This approach ensures a more accurate and risk-adjusted design compared to a single, generic value.

9. Calculating Nominal Strength

The nominal strength (R_n) of a member, adjusted for its end-use environment, is determined using the following formula:

$$R_n = R_o * C_1 * C_2 * \dots * C_n \text{ (Eq. 2.4-1)}$$

- R_o : Reference strength (unadjusted)
- C_i : Applicable adjustment factors from Section 2.4.4 (e.g., moisture, temperature)

10. Temperature and weathering

UV light exposure can cause pultrusion surfaces to fade (yellow) and lose their gloss. Over extended periods, the fiberglass closest to the surface can become exposed, resulting in a condition known as fiber bloom. This surface degradation does not affect the physical properties of the pultruded composite.

To mitigate the effects of UV degradation, SC-R incorporates a UV stabilizer into our resin mix formulation. Additionally, we incorporate a layer of polyester veil directly onto the surface of the pultrusion during the manufacturing process. This veil provides a resin-rich surface and acts as a barrier between the surface and the top layer of fiberglass reinforcement. The pigments used in our resin formulations also help slow the effects of weathering.

11. Temperature and moisture effect

For sustained end-use conditions deviating from the reference conditions, adjustment factors shall be determined through tests stipulated by the Engineer of Record. If such tests are absent, utilizing the following adjustment factors is permitted:

- CM: Moisture condition factor to account for sustained in-service moisture.
- CT: Temperature factor to account for sustained in-service temperatures higher than 38°C . For temperatures exceeding 60°C, CT shall be determined through Engineer of Record-stipulated tests.

Reference Property	Material	Moisture (CM)	CT for (32 < T ≤ 60)
Strength	Vinyl ester	0.85	1.444-0.0144T
	Polyester	0.8	1.308-0.0108T
Elastic modulus	Vinyl ester	0.95	1.58-0.018T
	Polyester	0.9	1.444-0.0144T

12. Serviceability Requirements for Deformations:

Structural members and systems must be designed to ensure:

- Deflections and rotations under service loads do not affect the structure's functionality or damage other elements.
- Irreversible deflections from sustained loads meet long-term performance requirements, where applicable.

Total Deflection Calculation:

The total deflection (Δ) is calculated using the following formula:

$$\Delta = \Delta_{st} * K_{cr}(t) \text{ (ACMA Eq. 2.6-1)}$$

where:

- Δ_{st} : Instantaneous deflection due to dead load (comb. 1.5-10)
- $K_{cr}(t)$: Deflection amplification factor considering long-term effects (Eq. 2.6-2)
- t : Required service period (years)

Deflection Amplification Factor ($K_{cr}(t)$):

This factor accounts for creep and other time-dependent effects on deflection:

$$K_{cr}(t) = 1 + (t^{1/4}) / 6 \text{ (ACMA Eq. 2.6-2)}$$

Key Points:

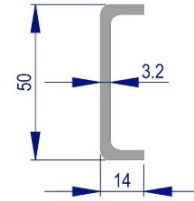
- Limit deflections to maintain functionality and prevent damage.
- Account for long-term deflections when necessary.
- Use the provided formula and factor to calculate total deflections.

Section properties and allowable loading

BEAMs

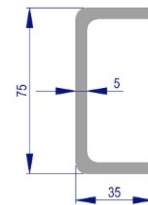
1. C-Channel

Product Name:	SC-R CS 50x14x3.2x3.2
Flexural allowable load:	0.2 kNm
Shear allowable load:	3.2 kN



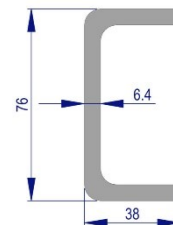
Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
0.4	50	14	3.2	229	7.06E+04	3.13E+03	0	3.7
Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	N/A							

Product Name:	SC-R CS 75x35x5x5
Flexural allowable load:	0.8 kNm
Shear allowable load:	6.7 kN



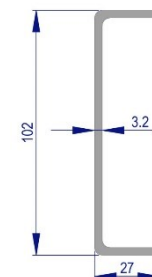
Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
1.3	75	35	5	675	5.40E+05	7.36E+04	0	10.4
Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	2.5	1.6	1.2	1.0				
2.0	1.1							

Product Name:	SC-R CS 76x36x6.4x6.4
Flexural allowable load:	1.3 kNm
Shear allowable load:	9.3 kN



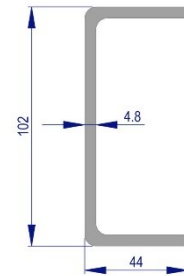
Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
1.7	76	36	3.2	229	7.06E+04	3.13E+03	0	3.7
Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	3.3	2.2	1.7	1.3	1.1	1.0		
2.0	1.4	1.0						

Product Name:	SC-R CS 102x27x3.2x3.2
Flexural allowable load:	0.3 kNm
Shear allowable load:	2.9 kN



Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
0.9	102	27	3.2	479	6.53E+05	2.63E+04	0	5.9
Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	2.9	2.0	1.5	1.2	1.0			
2.0	1.3							

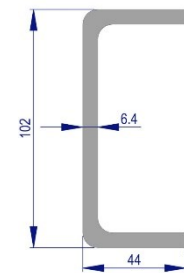
Product Name:	SC-R CS 102x44x4.8x4.8
Flexural allowable load:	0.8 kNm
Shear allowable load:	7.3 kN



Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.6	102	44	4.8	866	1.31E+06	1.51E+05	0	12

Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	5.7	3.8	2.9	2.3	1.9	1.6	1.4	1.0
2.0	2.5	1.7	1.3	1.0				
2.5	1.3							

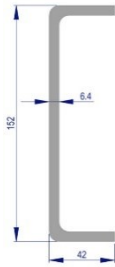
Product Name:	SC-R CS 102x44x6.4x6.4
Flexural allowable load:	1.8 kNm
Shear allowable load:	10.3 kN



Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
2.1	102	44	6.4	1134	1.66E+06	1.91E+05	0	12.6

Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	7.1	4.8	3.6	2.9	2.4	2.0	1.8	1.2
2.0	3.1	2.1	1.6	1.2	1.0			
2.5	1.6	1.1						

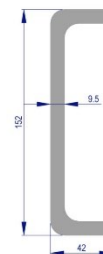
Product Name:	SC-R CS 152x42x6.4x6.4
Flexural allowable load:	2.6 kNm
Shear allowable load:	12.5 kN



Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
2.7	152	42	6.4	1429	4.27E+06	1.87E+05	0	10

Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	17.5	11.7	8.8	7.0	5.8	5.0	4.4	2.9
2.0	7.8	5.2	3.9	3.1	2.6	2.2	2.0	1.3
2.5	4.1	2.8	2.1	1.7	1.4	1.2	1.0	
3.0	2.4	1.6	1.2	1.0				
3.5	1.5	1.0						
4.0	1.0							

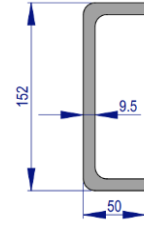
Product Name:	SC-R CS 152x42x9.5x9.5
Flexural allowable load:	5.2 kNm
Shear allowable load:	20.8 kN



Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
4	152	42	9.5	2062	5.87E+06	2.53E+05	0	11.2

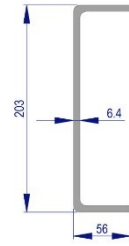
Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	24.5	16.3	12.3	9.8	8.2	7.0	6.1	4.1
2.0	10.9	7.3	5.5	4.4	3.6	3.1	2.7	1.8
2.5	5.7	3.8	2.9	2.3	1.9	1.6	1.4	1.0
3.0	3.4	2.2	1.7	1.3	1.1	1.0		
3.5	2.1	1.4	1.1					
4.0	1.4	1.0						
4.5	1.0							

Product Name:	SC-R CS 152X50X9.5X9.5
Flexural allowable load:	6 kNm
Shear allowable load:	20.8 kN



Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
4.2	152	50	9.5	2214	6.62E+05	4.25E+05	0	13.6
Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	27.5	18.4	13.8	11.0	9.2	7.9	6.9	4.6
2.0	12.4	8.2	6.2	4.9	4.1	3.5	3.1	2.1
2.5	6.5	4.3	3.3	2.6	2.2	1.9	1.6	1.1
3.0	3.8	2.6	1.9	1.5	1.3	1.1	1.0	
3.5	2.4	1.6	1.2	1.0				
4.0	1.6	1.1						
4.5	1.2							

Product Name:	SC-R CS 203x56x6.4x6.4
Flexural allowable load:	2.7 kNm
Shear allowable load:	11.4 kN



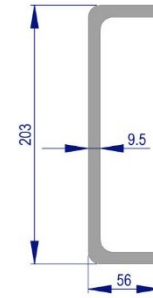
Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
3.7	203	56	6.4	1934	1.06E+07	4.67E+05	0	12.4

Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	39.5	26.4	19.8	15.8	13.2	11.3	9.9	6.6
2.0	18.4	12.3	9.2	7.4	6.1	5.3	4.6	3.1
2.5	9.9	6.6	4.9	4.0	3.3	2.8	2.5	1.6
3.0	5.9	3.9	2.9	2.4	2.0	1.7	1.5	1.0
3.5	3.8	2.5	1.9	1.5	1.3	1.1		
4.0	2.5	1.7	1.3	1.0				
4.5	1.8	1.2						
5.0	1.3							
5.5	1.0							

Product Name: **SC-R CS 203x56x9.5x9.5**

Flexural allowable load: 9.1 kNm

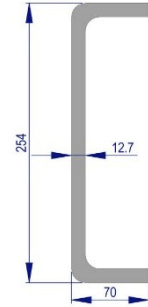
Shear allowable load: 24.3 kN



Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
5.3	203	56	9.5	2812	1.48E+07	6.44E+05	0	13.7

Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	56.2	37.5	28.1	22.5	18.7	16.1	14.1	9.4
2.0	26.1	17.4	13.0	10.4	8.7	7.4	6.5	4.3
2.5	14.0	9.3	7.0	5.6	4.7	4.0	3.5	2.3
3.0	8.3	5.5	4.2	3.3	2.8	2.4	2.1	1.4
3.5	5.3	3.5	2.7	2.1	1.8	1.5	1.3	
4.0	3.6	2.4	1.8	1.4	1.2	1.0		
4.5	2.5	1.7	1.3	1.0				
5.0	1.9	1.2						
5.5	1.4							
6.0	1.1							

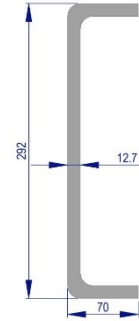
Product Name:	SC-R CS 254x70x12.7x12.7
Flexural allowable load:	20.5 kNm
Shear allowable load:	39.4 kN



Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
9	254	70	12.7	4681	3.83E+07	1.66E+06	0	17.4

Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	130.0	86.7	65.0	52.0	43.3	37.1	32.5	21.7
2.0	62.6	41.8	31.3	25.1	20.9	17.9	15.7	10.4
2.5	34.3	22.9	17.2	13.7	11.4	9.8	8.6	5.7
3.0	20.7	13.8	10.3	8.3	6.9	5.9	5.2	3.4
3.5	13.3	8.9	6.7	5.3	4.4	3.8	3.3	2.2
4.0	9.1	6.0	4.5	3.6	3.0	2.6	2.3	1.5
4.5	6.4	4.3	3.2	2.6	2.1	1.8	1.6	1.1
5.0	4.7	3.2	2.4	1.9	1.6	1.4	1.2	
5.5	3.6	2.4	1.8	1.4	1.2	1.0		
6.0	2.8	1.8	1.4	1.1				
6.5	2.2	1.5	1.1					
7.0	1.8	1.2						
7.5	1.4	1.0						

Product Name:	SC-R CS 292x70x12.7x12.7
Flexural allowable load:	12.3 kNm
Shear allowable load:	43.4 kN



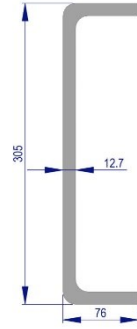
Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
10	292	70	12.7	5164	5.45E+07	1.72E+06	0	16.4

Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	174.2	116.1	87.1	69.7	58.1	49.8	43.6	29.0
2.0	85.8	57.2	42.9	34.3	28.6	24.5	21.4	14.3
2.5	47.6	31.7	23.8	19.0	15.9	13.6	11.9	7.9
3.0	28.9	19.2	14.4	11.5	9.6	8.2	7.2	4.8
3.5	18.7	12.5	9.4	7.5	6.2	5.3	4.7	3.1
4.0	12.8	8.5	6.4	5.1	4.3	3.7	3.2	2.1
4.5	9.1	6.1	4.5	3.6	3.0	2.6	2.3	1.5
5.0	6.7	4.5	3.3	2.7	2.2	1.9	1.7	1.1
5.5	5.1	3.4	2.5	2.0	1.7	1.4	1.3	
6.0	3.9	2.6	2.0	1.6	1.3	1.1	1.0	
6.5	3.1	2.1	1.6	1.2	1.0			
7.0	2.5	1.7	1.2	1.0				
7.5	2.0	1.4	1.0					

Product Name: **SC-R CS 305x76x12.7x12.7**

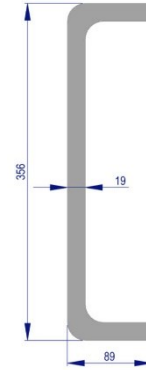
Flexural allowable load: 11.7 kNm

Shear allowable load: 44.5 kN



Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
10	292	70	12.7	5164	5.45E+07	1.72E+06	0	16.4
Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	196.8	131.2	98.4	78.7	65.6	56.2	49.2	32.8
2.0	98.3	65.5	49.1	39.3	32.8	28.1	24.6	16.4
2.5	55.0	36.7	27.5	22.0	18.3	15.7	13.7	9.2
3.0	33.5	22.3	16.8	13.4	11.2	9.6	8.4	5.6
3.5	21.8	14.5	10.9	8.7	7.3	6.2	5.4	3.6
4.0	14.9	9.9	7.5	6.0	5.0	4.3	3.7	2.5
4.5	10.6	7.1	5.3	4.3	3.5	3.0	2.7	1.8
5.0	7.8	5.2	3.9	3.1	2.6	2.2	2.0	1.3
5.5	5.9	4.0	3.0	2.4	2.0	1.7	1.5	1.0
6.0	4.6	3.1	2.3	1.8	1.5	1.3	1.2	
6.5	3.6	2.4	1.8	1.5	1.2	1.0		
7.0	2.9	2.0	1.5	1.2	1.0			
7.5	2.4	1.6	1.2	1.0				

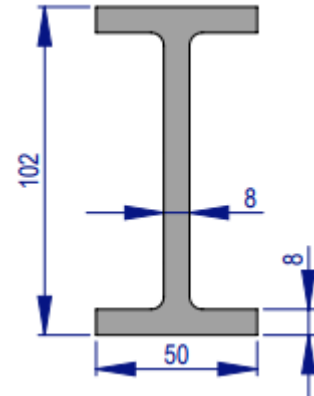
Product Name:	SC-R CS 356x89x19x19
Flexural allowable load:	37.3 kNm
Shear allowable load:	83 kN



Weight (Kg/m)	Height (mm)	Width (mm)	Thickness (mm)	Area (mm ²)	I Major (mm ⁴)	I Minor (mm ⁴)	Height CG (mm)	Length CG (mm)
18	356	89	19	9424	1.46E+08	5.02E+06	0	22.4

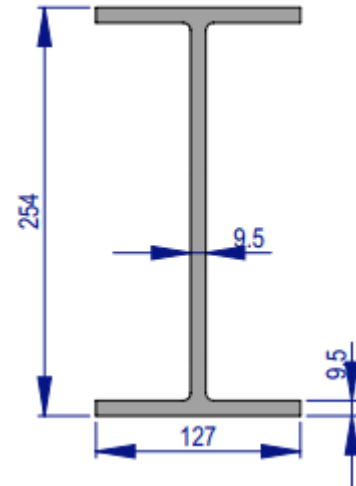
Length (m)	L/100 (kN/m)	L/150 (kN/m)	L/200 (kN/m)	L/250 (kN/m)	L/300 (kN/m)	L/300 (kN/m)	L/400 (kN/m)	L/600 (kN/m)
1.5	404.7	269.8	202.4	161.9	134.9	115.6	101.2	67.5
2.0	209.1	139.4	104.5	83.6	69.7	59.7	52.3	34.8
2.5	119.5	79.6	59.7	47.8	39.8	34.1	29.9	19.9
3.0	73.8	49.2	36.9	29.5	24.6	21.1	18.4	12.3
3.5	48.4	32.3	24.2	19.4	16.1	13.8	12.1	8.1
4.0	33.4	22.2	16.7	13.3	11.1	9.5	8.3	5.6
4.5	23.9	15.9	11.9	9.6	8.0	6.8	6.0	4.0
5.0	17.7	11.8	8.8	7.1	5.9	5.0	4.4	2.9
5.5	13.4	8.9	6.7	5.4	4.5	3.8	3.4	2.2
6.0	10.4	6.9	5.2	4.2	3.5	3.0	2.6	1.7
6.5	8.2	5.5	4.1	3.3	2.7	2.4	2.1	1.4
7.0	6.6	4.4	3.3	2.7	2.2	1.9	1.7	1.1
7.5	5.4	3.6	2.7	2.2	1.8	1.5	1.4	

Product Name:	SC-R IB 50x102x8x8
Flexural allowable load:	3.1 kNm
Shear allowable load:	17.5 kN



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
2.9	102	50	8	8	1502	2.22E+06	1.71E+05	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600	
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	10.1	6.8	5.1	4.1	3.4	2.9	2.5	1.7	
2.0	4.4	3.0	2.2	1.8	1.5	1.3	1.1		
2.5	2.3	1.5	1.2						
3.0	1.3	0.9							

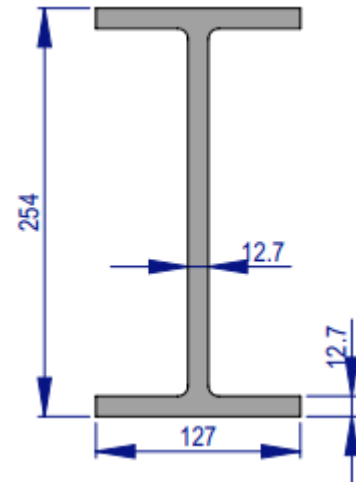
Product Name:	SC-R IB 127x254x9.5x9.5
Flexural allowable load:	23.8 kNm
Shear allowable load:	31.4 kN



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
8.9	254	127	9.5	9.5	4665	4.66E+07	3.26E+06	0	0

Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	138.3	92.2	69.1	55.3	46.1	39.5	34.6	23.0
2.0	70.4	46.9	35.2	28.1	23.5	20.1	17.6	11.7
2.5	39.8	26.5	19.9	15.9	13.3	11.4	10.0	6.6
3.0	24.4	16.3	12.2	9.8	8.1	7.0	6.1	4.1
3.5	16.0	10.7	8.0	6.4	5.3	4.6	4.0	2.7
4.0	11.0	7.3	5.5	4.4	3.7	3.1	2.7	1.8
4.5	7.8	5.2	3.9	3.1	2.6	2.2	2.0	1.3
5.0	5.8	3.9	2.9	2.3	1.9	1.7	1.4	1.0
5.5	4.4	2.9	2.2	1.8	1.5	1.3	1.1	
6.0	3.4	2.3	1.7	1.4	1.1	1.0		
6.5	2.7	1.8	1.3	1.1				
7.0	2.2	1.4	1.1					
7.5	1.8	1.2						

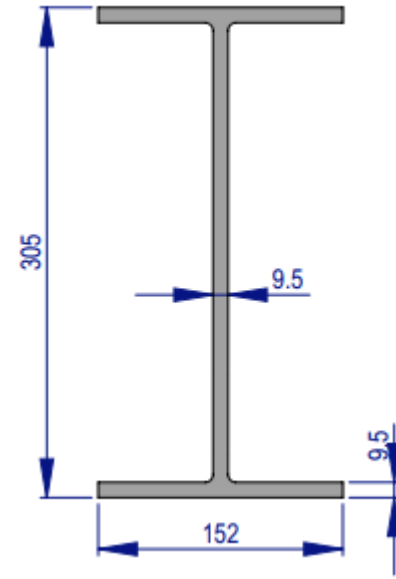
	SC-R	IB
Product Name:	127x254x12.7x12.7	
Flexural allowable load:	33.1 kNm	
Shear allowable load:	68.9 kN	



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
11.7	254	127	12.7	12.7	6164	6.01E+07	4.38E+06	0	0

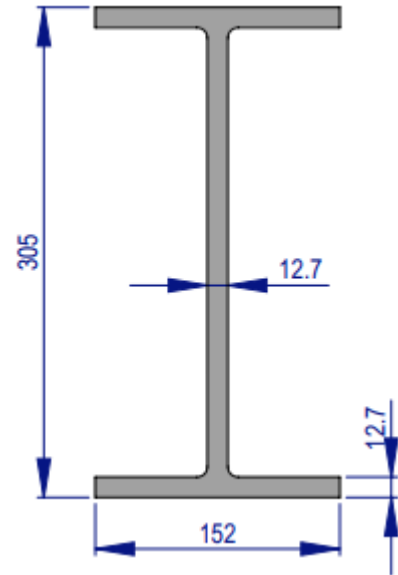
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	183.9	122.6	91.9	73.5	61.3	52.5	46.0	30.6
2.0	92.8	61.8	46.4	37.1	30.9	26.5	23.2	15.5
2.5	52.2	34.8	26.1	20.9	17.4	14.9	13.1	8.7
3.0	32.0	21.3	16.0	12.8	10.7	9.1	8.0	5.3
3.5	20.8	13.9	10.4	8.3	6.9	6.0	5.2	3.5
4.0	14.3	9.5	7.1	5.7	4.8	4.1	3.6	2.4
4.5	10.2	6.8	5.1	4.1	3.4	2.9	2.6	1.7
5.0	7.5	5.0	3.8	3.0	2.5	2.2	1.9	1.3
5.5	5.7	3.8	2.9	2.3	1.9	1.6	1.4	1.0
6.0	4.4	3.0	2.2	1.8	1.5	1.3	1.1	
6.5	3.5	2.3	1.8	1.4	1.2	1.0		
7.0	2.8	1.9	1.4	1.1				
7.5	2.3	1.5	1.1					

Product Name:	SC-R IB 152x305x9.5x9.5
Flexural allowable load:	21.2 kNm
Shear allowable load:	26.3 kN



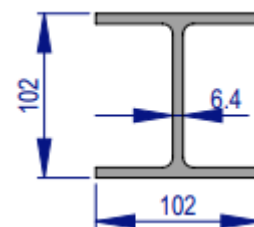
Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
10.7	305	152	9.5	9.5	5625	8.20E+07	5.58E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600	
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	175.8	117.2	87.9	70.3	58.6	50.2	43.9	29.3	
2.0	94.7	63.1	47.3	37.9	31.6	27.1	23.7	15.8	
2.5	55.6	37.1	27.8	22.2	18.5	15.9	13.9	9.3	
3.0	35.0	23.3	17.5	14.0	11.7	10.0	8.7	5.8	
3.5	23.2	15.5	11.6	9.3	7.7	6.6	5.8	3.9	
4.0	16.1	10.8	8.1	6.5	5.4	4.6	4.0	2.7	
4.5	11.6	7.8	5.8	4.7	3.9	3.3	2.9	1.9	
5.0	8.6	5.8	4.3	3.5	2.9	2.5	2.2	1.4	
5.5	6.6	4.4	3.3	2.6	2.2	1.9	1.6	1.1	
6.0	5.1	3.4	2.6	2.1	1.7	1.5	1.3		
6.5	4.1	2.7	2.0	1.6	1.4	1.2	1.0		
7.0	3.3	2.2	1.6	1.3	1.1				
7.5	2.7	1.8	1.3	1.1					

Product Name:	SC-R IB 152x305x12.7x12.7
Flexural allowable load:	42.5 kNm
Shear allowable load:	62.7 kN



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
14.2	305	152	12.7	12.7	7447	1.06E+08	7.48E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600	
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	236.2	157.5	118.1	94.5	78.7	67.5	59.0	39.4	
2.0	126.1	84.1	63.0	50.4	42.0	36.0	31.5	21.0	
2.5	73.6	49.1	36.8	29.4	24.5	21.0	18.4	12.3	
3.0	46.1	30.7	23.0	18.4	15.4	13.2	11.5	7.7	
3.5	30.5	20.4	15.3	12.2	10.2	8.7	7.6	5.1	
4.0	21.2	14.1	10.6	8.5	7.1	6.1	5.3	3.5	
4.5	15.2	10.2	7.6	6.1	5.1	4.4	3.8	2.5	
5.0	11.3	7.5	5.7	4.5	3.8	3.2	2.8	1.9	
5.5	8.6	5.7	4.3	3.4	2.9	2.5	2.2	1.4	
6.0	6.7	4.5	3.4	2.7	2.2	1.9	1.7	1.1	
6.5	5.3	3.5	2.7	2.1	1.8	1.5	1.3		
7.0	4.3	2.9	2.1	1.7	1.4	1.2	1.1		
7.5	3.5	2.3	1.7	1.4	1.2	1.0			

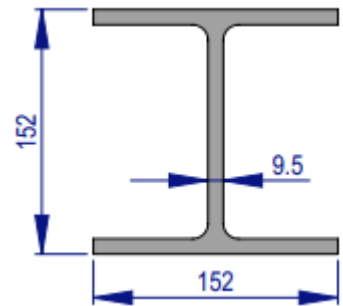
Product Name:	SC-R WF 102x102x6.4x6.4
Flexural allowable load:	2.8 kNm
Shear allowable load:	10.3 kN



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
3.6	102	102	6.4	6.4	1912	3.43E+06	1.13E+06	0	0

Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	15.1	10.1	7.6	6.0	5.0	4.3	3.8	2.5
2.0	6.6	4.4	3.3	2.6	2.2	1.9	1.7	1.1
2.5	3.4	2.3	1.7	1.4	1.1	1.0		
3.0	2.0	1.3	1.0					
3.5	1.3							

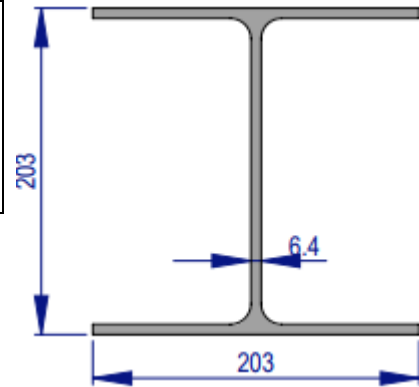
Product Name:	SC-R WF 152x152x9.5x9.5
Flexural allowable load:	9.5 kNm
Shear allowable load:	24.7 kN



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
8	152	152	9.5	9.5	4229	1.69E+07	5.57E+06	0	0

Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	67.6	45.1	33.8	27.0	22.5	19.3	16.9	11.3
2.0	30.7	20.5	15.4	12.3	10.2	8.8	7.7	5.1
2.5	16.3	10.9	8.1	6.5	5.4	4.7	4.1	2.7
3.0	9.6	6.4	4.8	3.8	3.2	2.7	2.4	1.6
3.5	6.1	4.1	3.1	2.5	2.0	1.8	1.5	1.0
4.0	4.1	2.8	2.1	1.7	1.4	1.2	1.0	
4.5	2.9	2.0	1.5	1.2	1.0			
5.0	2.1	1.4	1.1					
5.5	1.6	1.1						
6.0	1.2							
6.5	1.0							

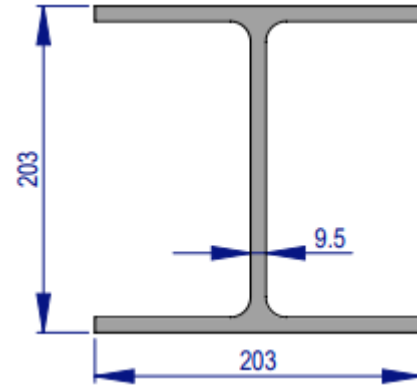
	SC-R	WF
Product Name:	203x203x6.4x6.4	
Flexural allowable load:	3 kNm	
Shear allowable load:	13.7 kN	



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
7.5	203	203	6.4	6.4	3955	3.00E+07	8.93E+06	0	0

Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	100.3	66.9	50.2	40.1	33.4	28.7	25.1	16.7
2.0	48.2	32.1	24.1	19.3	16.1	13.8	12.1	8.0
2.5	26.4	17.6	13.2	10.6	8.8	7.5	6.6	4.4
3.0	15.9	10.6	7.9	6.3	5.3	4.5	4.0	2.6
3.5	10.2	6.8	5.1	4.1	3.4	2.9	2.6	1.7
4.0	7.0	4.6	3.5	2.8	2.3	2.0	1.7	1.2
4.5	4.9	3.3	2.5	2.0	1.6	1.4	1.2	
5.0	3.6	2.4	1.8	1.5	1.2	1.0		
5.5	2.7	1.8	1.4	1.1				
6.0	2.1	1.4	1.1					
6.5	1.7	1.1						
7.0	1.3							
7.5	1.1							

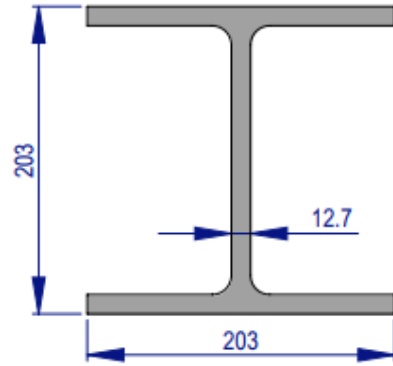
Product Name:	SC-R WF 203x203x9.5x9.5
Flexural allowable load:	9.8 kNm
Shear allowable load:	39.1 kN



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
11	203	203	9.5	9.5	5744	4.22E+07	1.33E+06	0	0

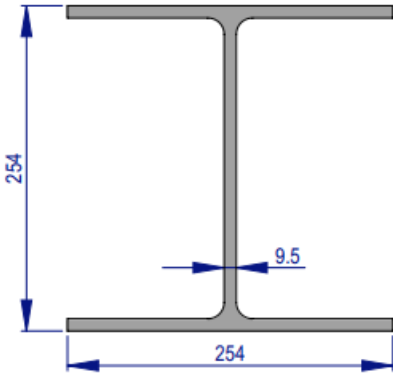
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	145.9	97.3	73.0	58.4	48.6	41.7	36.5	24.3
2.0	69.8	46.5	34.9	27.9	23.3	19.9	17.4	11.6
2.5	38.1	25.4	19.0	15.2	12.7	10.9	9.5	6.3
3.0	22.8	15.2	11.4	9.1	7.6	6.5	5.7	3.8
3.5	14.7	9.8	7.4	5.9	4.9	4.2	3.7	2.5
4.0	10.0	6.7	5.0	4.0	3.3	2.9	2.5	1.7
4.5	7.1	4.7	3.5	2.8	2.4	2.0	1.8	1.2
5.0	5.2	3.5	2.6	2.1	1.7	1.5	1.3	
5.5	3.9	2.6	2.0	1.6	1.3	1.1	1.0	
6.0	3.0	2.0	1.5	1.2	1.0			
6.5	2.4	1.6	1.2	1.0				
7.0	1.9	1.3	1.0					
7.5	1.6	1.0						

Product Name:	SC-R WF 203x203.x12.7x12.7
Flexural allowable load:	23.3 kNm
Shear allowable load:	52.4 kN



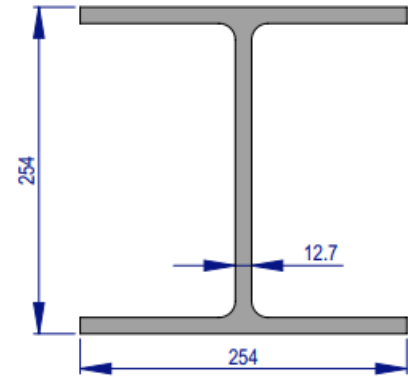
Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
14.5	203	203	12.7	12.7	7551	5.37E+07	1.77E+07	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600	
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	190.8	127.2	95.4	76.3	63.6	54.5	47.7	31.8	
2.0	90.7	60.5	45.4	36.3	30.2	25.9	22.7	15.1	
2.5	49.4	32.9	24.7	19.7	16.5	14.1	12.3	8.2	
3.0	29.6	19.7	14.8	11.8	9.9	8.4	7.4	4.9	
3.5	19.0	12.7	9.5	7.6	6.3	5.4	4.8	3.2	
4.0	12.9	8.6	6.5	5.2	4.3	3.7	3.2	2.2	
4.5	9.2	6.1	4.6	3.7	3.1	2.6	2.3	1.5	
5.0	6.7	4.5	3.4	2.7	2.2	1.9	1.7	1.1	
5.5	5.1	3.4	2.5	2.0	1.7	1.5	1.3		
6.0	3.9	2.6	2.0	1.6	1.3	1.1	1.0		
6.5	3.1	2.1	1.6	1.2	1.0				
7.0	2.5	1.7	1.2	1.0					
7.5	2.0	1.4	1.0						

Product Name:	SC-R WF 254x254x9.5x9.5
Flexural allowable load:	10 kNm
Shear allowable load:	36.4 kN



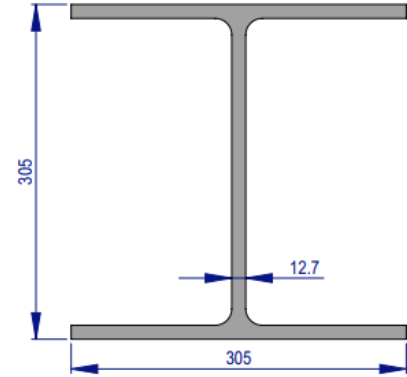
Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
13.5	254	254	9.5	9.5	7197	8.43E+07	2.60E+07	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600	
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	250.5	167.0	125.2	100.2	83.5	71.6	62.6	41.7	
2.0	126.3	84.2	63.1	50.5	42.1	36.1	31.6	21.0	
2.5	71.1	47.4	35.5	28.4	23.7	20.3	17.8	11.8	
3.0	43.5	29.0	21.7	17.4	14.5	12.4	10.9	7.2	
3.5	28.3	18.9	14.2	11.3	9.4	8.1	7.1	4.7	
4.0	19.4	13.0	9.7	7.8	6.5	5.6	4.9	3.2	
4.5	13.9	9.2	6.9	5.5	4.6	4.0	3.5	2.3	
5.0	10.2	6.8	5.1	4.1	3.4	2.9	2.6	1.7	
5.5	7.8	5.2	3.9	3.1	2.6	2.2	1.9	1.3	
6.0	6.0	4.0	3.0	2.4	2.0	1.7	1.5	1.0	
6.5	4.8	3.2	2.4	1.9	1.6	1.4	1.2		
7.0	3.8	2.5	1.9	1.5	1.3	1.1	1.0		
7.5	3.1	2.1	1.6	1.2	1.0				

Product Name:	SC-R WF 254x254x12.7x12.7
Flexural allowable load:	23.9 kNm
Shear allowable load:	65.4 kN



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
18	254	254	12.7	12.7	9494	1.08E+08	3.47E+07	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600	
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	330.7	220.4	165.3	132.3	110.2	94.5	82.7	55.1	
2.0	165.8	110.5	82.9	66.3	55.3	47.4	41.4	27.6	
2.5	93.0	62.0	46.5	37.2	31.0	26.6	23.2	15.5	
3.0	56.8	37.8	28.4	22.7	18.9	16.2	14.2	9.5	
3.5	37.0	24.6	18.5	14.8	12.3	10.6	9.2	6.2	
4.0	25.3	16.9	12.7	10.1	8.4	7.2	6.3	4.2	
4.5	18.1	12.0	9.0	7.2	6.0	5.2	4.5	3.0	
5.0	13.3	8.9	6.7	5.3	4.4	3.8	3.3	2.2	
5.5	10.1	6.7	5.0	4.0	3.4	2.9	2.5	1.7	
6.0	7.8	5.2	3.9	3.1	2.6	2.2	2.0	1.3	
6.5	6.2	4.1	3.1	2.5	2.1	1.8	1.5	1.0	
7.0	5.0	3.3	2.5	2.0	1.7	1.4	1.2		
7.5	4.1	2.7	2.0	1.6	1.4	1.2	1.0		

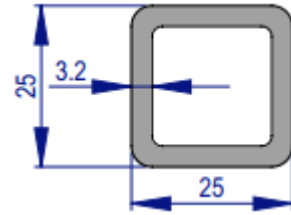
Product Name:	SC-R WF 305x305x12.7x12.7
Flexural allowable load:	24.4 kNm
Shear allowable load:	73 kN



Weight	Height	Width	Flange TH	Web TH	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
22	305	305	12.7	12.7	11492	1.92E+08	6.01E+07	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600	
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	496.4	330.9	248.2	198.6	165.5	141.8	124.1	82.7	
2.0	261.9	174.6	130.9	104.7	87.3	74.8	65.5	43.6	
2.5	151.6	101.1	75.8	60.7	50.5	43.3	37.9	25.3	
3.0	94.5	63.0	47.2	37.8	31.5	27.0	23.6	15.7	
3.5	62.4	41.6	31.2	25.0	20.8	17.8	15.6	10.4	
4.0	43.1	28.8	21.6	17.3	14.4	12.3	10.8	7.2	
4.5	31.0	20.7	15.5	12.4	10.3	8.9	7.7	5.2	
5.0	23.0	15.3	11.5	9.2	7.7	6.6	5.7	3.8	
5.5	17.5	11.6	8.7	7.0	5.8	5.0	4.4	2.9	
6.0	13.6	9.1	6.8	5.4	4.5	3.9	3.4	2.3	
6.5	10.8	7.2	5.4	4.3	3.6	3.1	2.7	1.8	
7.0	8.7	5.8	4.3	3.5	2.9	2.5	2.2	1.4	
7.5	7.1	4.7	3.5	2.8	2.4	2.0	1.8	1.2	

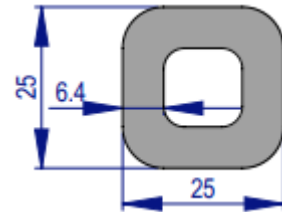
4. Square Tube

Product Name:	SC-R SHS 25x25x3.2
Flexural allowable load:	0.1 kNm
Shear allowable load:	2.9 kN



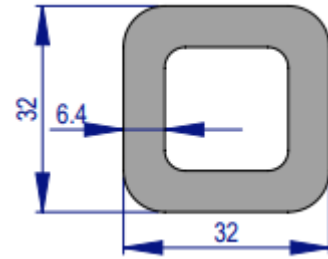
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.5	25	25	3.2	273	2.15E+04	2.15E+04	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R SHS 25x25x6.35
Flexural allowable load:	0.21 kNm
Shear allowable load:	5.9 kN



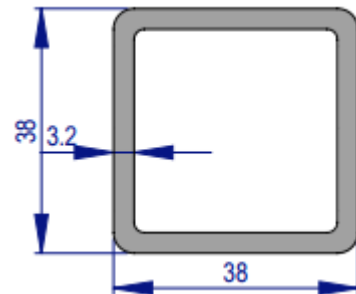
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.9	25	25	6.4	450	2.66E+04	2.66E+04	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R SHS 32x32x6.4
Flexural allowable load:	0.3 kNm
Shear allowable load:	7.4 kN



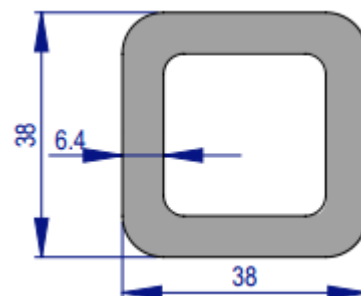
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.2	32	32	6.4	629	6.92E+04	6.92E+04	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R SHS 38x38x3.2
Flexural allowable load:	0.3 kNm
Shear allowable load:	4.4 kN



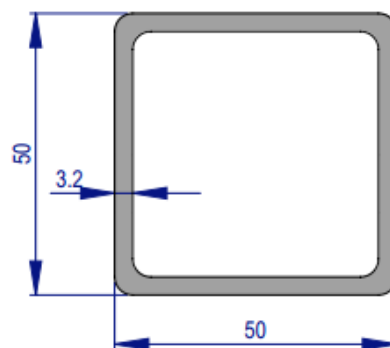
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.8	38	38	3.2	439	8.83E+04	8.83E+04	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R SHS 38x38x6.4
Flexural allowable load:	0.5 kNm
Shear allowable load:	8.8 kN



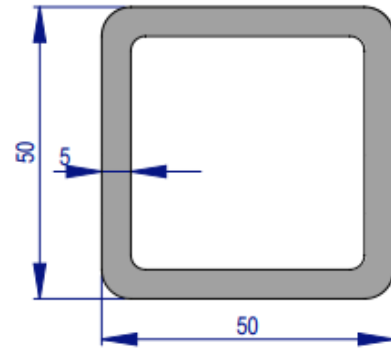
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.5	38	38	6.4	783	1.30E+05	1.30E+05	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R SHS 50x50x3.2
Flexural allowable load:	0.6 kNm
Shear allowable load:	5.9 kN



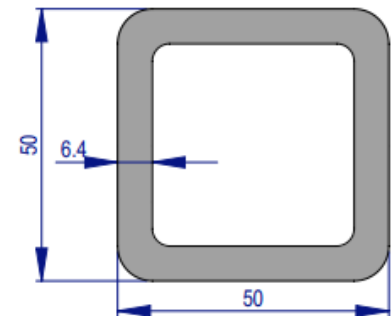
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1	50	50	3.2	599	2.18E+05	2.18E+05	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	1.0							

Product Name:	SC-R SHS 50x50x5
Flexural allowable load:	0.8 kNm
Shear allowable load:	9.1 kN



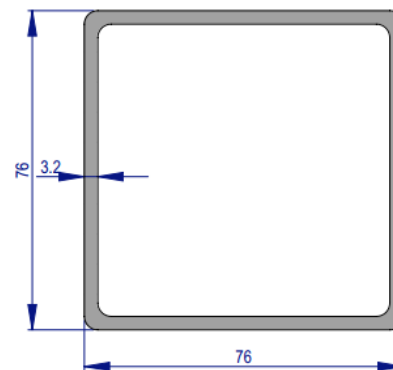
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.6	50	50	5	884	2.97E+05	2.97E+05	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	1.4							

Product Name:	SC-R SHS 50x50x6.4
Flexural allowable load:	1 kNm
Shear allowable load:	11.6 kN



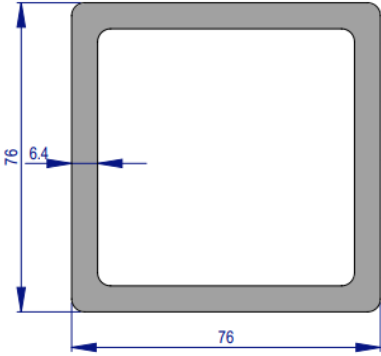
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
2	50	50	6.4	1090	3.44E+05	3.44E+05	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	1.7	1.1						

Product Name:	SC-R SHS 76x76x3.2
Flexural allowable load:	1.5 kNm
Shear allowable load:	7.4 kN



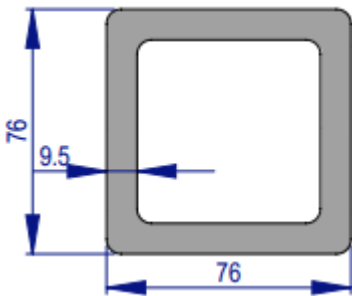
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.7	76	76	3.2	932	8.23E+05	8.23E+05	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	3.7	2.5	1.8	1.5	1.2	1.1		
2.0	1.6	1.1						

Product Name:	SC-R SHS 76x76x6.4
Flexural allowable load:	2.6 kNm
Shear allowable load:	17.8 kN



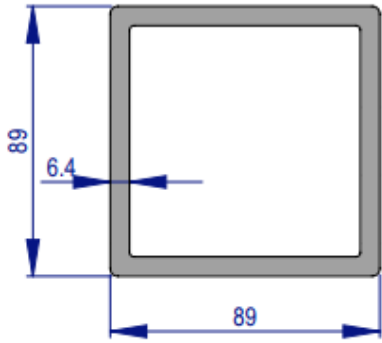
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
3.5	76	76	6.4	1782	1.45E+06	1.45E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	6.5	4.4	3.3	2.6	2.2	1.9	1.6	1.1
2.0	2.8	1.9	1.4	1.1				
2.5	1.5	1.0						

Product Name:	SC-R SHS 76x76x9.5
Flexural allowable load:	3.4 kNm
Shear allowable load:	26 kN



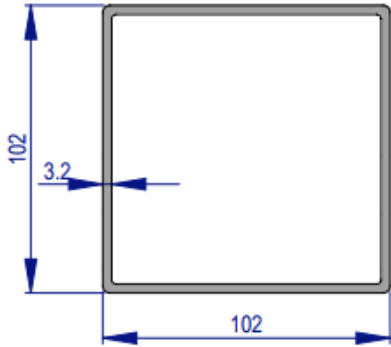
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
4.8	76	76	9.5	2527	1.89E+06	1.89E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	8.5	5.7	4.3	3.4	2.8	2.4	2.1	1.4
2.0	3.7	2.5	1.8	1.5	1.2	1.1		
2.5	1.9	1.3	1.0					
3.0	1.1							

Product Name:	SC-R SHS 89x89x6.4
Flexural allowable load:	3.7 kNm
Shear allowable load:	19.3 kN



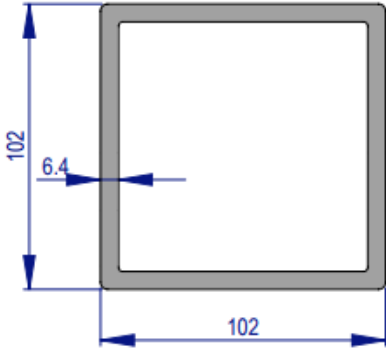
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
4	89	89	6.4	2111	2.41E+06	2.41E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	8.5	5.7	4.3	3.4	2.8	2.4	2.1	1.4
2.0	3.7	2.5	1.8	1.5	1.2	1.1		
2.5	1.9	1.3	1.0					
3.0	1.1							

Product Name:	SC-R SHS 102x102x3.2
Flexural allowable load:	2 kNm
Shear allowable load:	6.8 kN



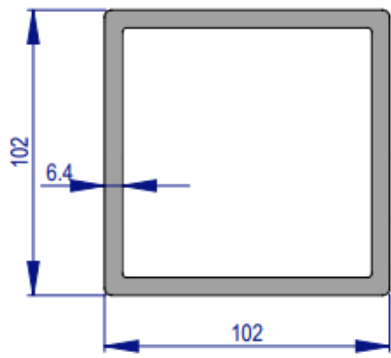
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
2.5	102	102	3.2	1262	2.05E+06	2.05E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	8.8	5.9	4.4	3.5	2.9	2.5	2.2	1.5
2.0	3.9	2.6	1.9	1.6	1.3	1.1	1.0	
2.5	2.0	1.4	1.0					
3.0	1.2							

Product Name:	SC-R SHS 102x102x6.4
Flexural allowable load:	5 kNm
Shear allowable load:	20.4 kN



Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
4.6	102	102	6.4	2444	3.73E+06	3.73E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	16.1	10.8	8.1	6.5	5.4	4.6	4.0	2.7
2.0	7.1	4.7	3.6	2.8	2.4	2.0	1.8	1.2
2.5	3.7	2.5	1.9	1.5	1.2	1.1		
3.0	2.2	1.4	1.1					
3.5	1.4							

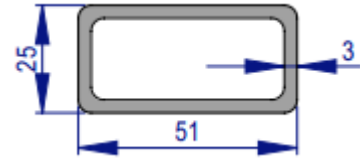
Product Name:	SC-R SHS 102x102x6.4
Flexural allowable load:	5 kNm
Shear allowable load:	20.4 kN



Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
4.6	102	102	6.4	2444	3.73E+06	3.73E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	16.1	10.8	8.1	6.5	5.4	4.6	4.0	2.7
2.0	7.1	4.7	3.6	2.8	2.4	2.0	1.8	1.2
2.5	3.7	2.5	1.9	1.5	1.2	1.1		
3.0	2.2	1.4	1.1					
3.5	1.4							

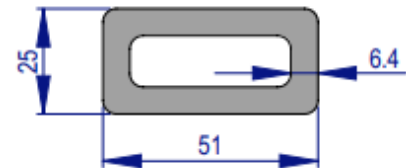
5. Rectangular Tube

Product Name:	SC-R RHS 51x25x3
Flexural allowable load:	0.4 kNm
Shear allowable load:	5.9 kN



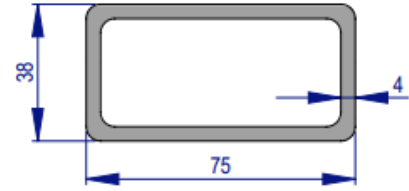
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.8	51	25	3	420	1.31E+06	4.02E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R RHS 51x25x6.4
Flexural allowable load:	0.6 kNm
Shear allowable load:	12.9 kN



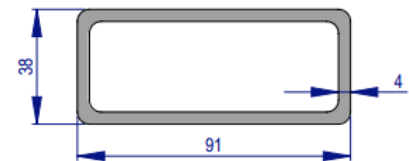
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.5	51	25	6.4	809	2.17E+06	5.97E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	1.0							

Product Name: **SC-R RHS 75x38x4**
 Flexural allowable load: 1.1 kNm
 Shear allowable load: 9.7 kN



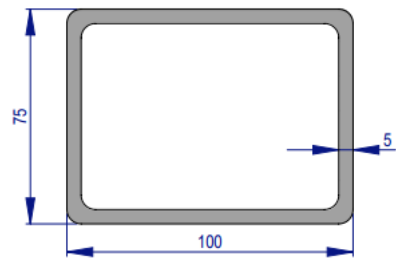
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.6	75	38	4	840	5.80E+05	1.90E+05	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	2.5	1.7	1.3	1.0				
2.0	1.1							

Product Name: **SC-R RHS 91x38x4**
 Flexural allowable load: 1.5 kNm
 Shear allowable load: 10.8 kN



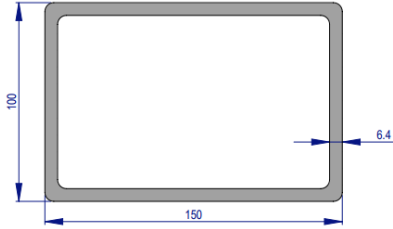
Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.8	91	38	4	968	9.52E+05	2.28E+05	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	4.0	2.7	2.0	1.6	1.3	1.1	1.0	
2.0	1.8	1.2						

Product Name:	SC-R RHS 100x75x5x5
Flexural allowable load:	3.1 kNm
Shear allowable load:	14.9 kN



Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
3	100	75	5	1650	2.29E+06	1.45E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	9.8	6.5	4.9	3.9	3.3	2.8	2.4	1.6
2.0	4.3	2.9	2.2	1.7	1.4	1.2	1.1	
2.5	2.3	1.5	1.1					
3.0	1.3							

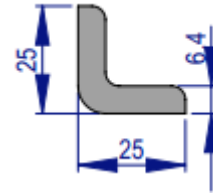
Product Name:	SC-R RHS 150x100x6.4x6.4
Flexural allowable load:	8.5 kNm
Shear allowable load:	34 kN



Weight	Height	Width	Flange Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
6	150	100	6.4	3037	9.34E+06	4.91E+06	0	0
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	34.2	22.8	17.1	13.7	11.4	9.8	8.6	5.7
2.0	16.1	10.7	8.0	6.4	5.4	4.6	4.0	2.7
2.5	8.7	5.8	4.3	3.5	2.9	2.5	2.2	1.4
3.0	5.2	3.4	2.6	2.1	1.7	1.5	1.3	
3.5	3.3	2.2	1.7	1.3	1.1			
4.0	2.2	1.5	1.1					
4.5	1.6	1.1						
5.0	1.2							

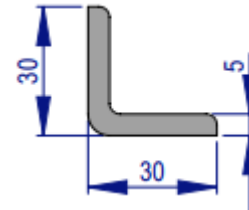
6. Equal Angle

Product Name:	SC-R EA 25x25x6.4
Flexural allowable load:	0.1 kNm
Shear allowable load:	3.2 kN



Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.5	25	25	6.4	268	3.36E+04	1.18 E+04	8.6	8.6
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R EA 30x30x5
Flexural allowable load:	0.1 kNm
Shear allowable load:	2.9 kN

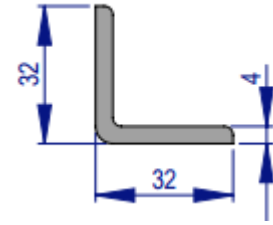


Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.5	30	30	5	268.5	4.49E+04	1.08E+04	9.4	9.4
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name: **SC-R EA 32x32x4**

Flexural allowable load: 0.1 kNm

Shear allowable load: 2.4 kN



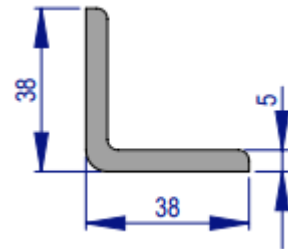
Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.5	32	32	4	236	4.34E+04	7.95E+03	9.5	9.5

Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name: **SC-R EA 38x38x5**

Flexural allowable load: 0.1 kNm

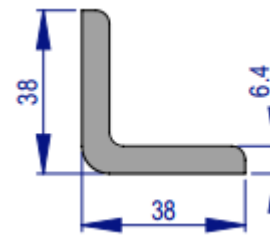
Shear allowable load: 3.7 kN



Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.7	38	38	5	348.5	9.10E+04	1.75E+04	11.4	11.4

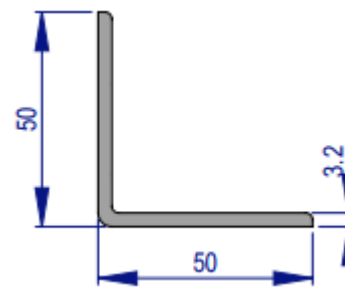
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R EA 38x38x6.4
Flexural allowable load:	0.1 kNm
Shear allowable load:	4.8 kN



Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.8	38	38	6.4	435	1.17E+05	2.83E+04	11.9	11.9
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name:	SC-R EA 50x50x3.2
Flexural allowable load:	0.1 kNm
Shear allowable load:	3.1 kN

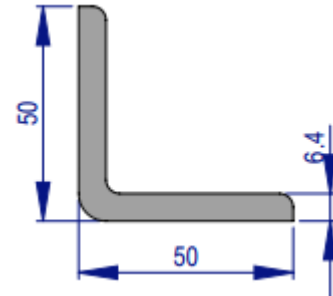


Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
0.6	50	50	3.2	307.5	1.32E+05	1.26E+04	13.7	13.7
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name: **SC-R EA 50x50x6.4**

Flexural allowable load: 0.3 kNm

Shear allowable load: 6.2 kN

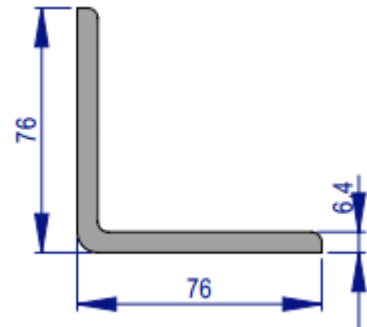


Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.1	50	50	6.4	588	2.65E+05	4.97E+04	14.9	14.9
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	N/A							

Product Name: **SC-R EA 76x76x6.4**

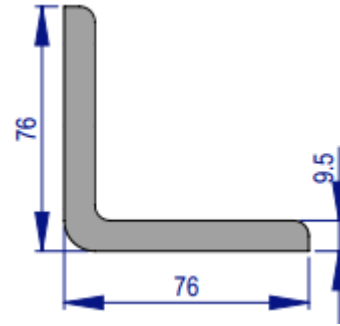
Flexural allowable load: 0.6 kNm

Shear allowable load: 9.2 kN



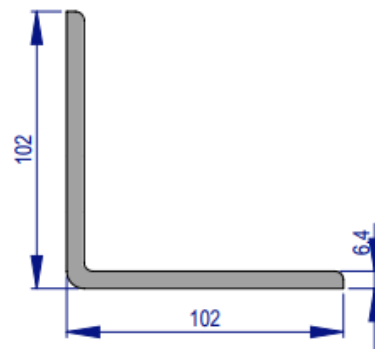
Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
1.7	76	76	6.4	921	9.30E+05	1.16E+04	21.4	21.4
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	2.4	1.6	1.2	1.0				
2.0	1.0							

Product Name:	SC-R EA 76x76x9.5
Flexural allowable load:	0.9 kNm
Shear allowable load:	13.8 kN



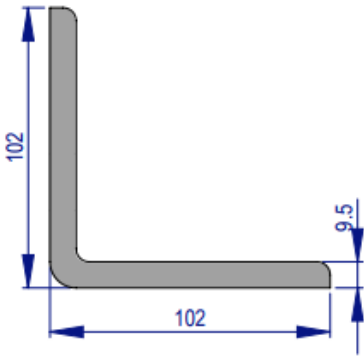
Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
2.5	76	76	9.5	1330	1.38E+06	2.53E+05	22.6	22.6
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	3.3	2.2	1.7	1.3	1.1	1.0		
2.0	1.4							

Product Name:	SC-R EA 102x102x6.4
Flexural allowable load:	1.2 kNm
Shear allowable load:	10.1 kN



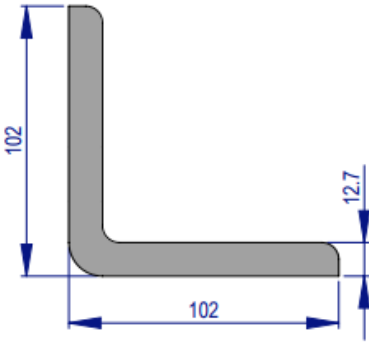
Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
2.4	102	102	6.4	1254	2.25E+06	2.10E+05	27.9	27.9
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	5.7	3.8	2.9	2.3	1.9	1.6	1.4	1.0
2.0	2.5	1.7	1.2	1.0				
2.5	1.3							

Product Name:	SC-R EA 102x102x9.5
Flexural allowable load:	1.7 kNm
Shear allowable load:	17.7 kN



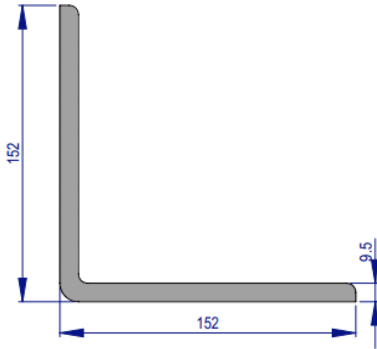
Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
3.4	102	102	9.5	1824	3.34E+06	4.60E+05	29.1	29.1
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	8.1	5.4	4.1	3.3	2.7	2.3	2.0	1.4
2.0	3.5	2.4	1.8	1.4	1.2	1.0		
2.5	1.8	1.2						
3.0	1.1							

Product Name:	SC-R EA 102x102x12.7
Flexural allowable load:	2.2 kNm
Shear allowable load:	25.7 kN



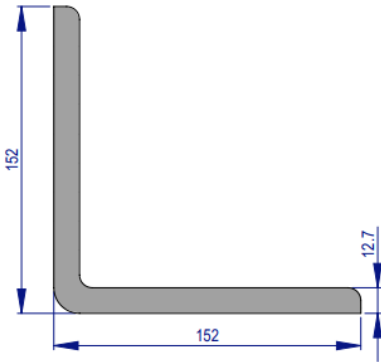
Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
4.5	102	102	12.7	2387	4.47E+06	8.14E+05	30.33	30.3
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	10.5	7.0	5.2	4.2	3.5	3.0	2.6	1.7
2.0	4.5	3.0	2.3	1.8	1.5	1.3	1.1	
2.5	2.4	1.6	1.2					
3.0	1.4							

Product Name:	SC-R EA 152x152x9.5
Flexural allowable load:	3.9 kNm
Shear allowable load:	20.4 kN



Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
5.2	152	152	9.5	2774	1.11E+07	1.03E+06	41.6	41.6
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	26.2	17.5	13.1	10.5	8.7	7.5	6.6	4.4
2.0	11.7	7.8	5.9	4.7	3.9	3.4	2.9	2.0
2.5	6.2	4.1	3.1	2.5	2.1	1.8	1.5	1.0
3.0	3.6	2.4	1.8	1.5	1.2	1.0		
3.5	2.3	1.5	1.2					
4.0	1.6	1.0						
4.5	1.1							

Product Name:	SC-R EA 152x152x12.7
Flexural allowable load:	5.1 kNm
Shear allowable load:	30.8 kN



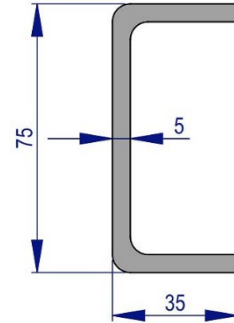
Weight	Height	Width	Thickness	Area	I Major	I Minor	Height CG	Length CG
(Kg/m)	(mm)	(mm)	(mm)	(mm ²)	(mm ⁴)	(mm ⁴)	(mm)	(mm)
7	152	152	12.7	3657	1.48E+07	1.83E+06	42.8	42.8
Length	L/100	L/150	L/200	L/250	L/300	L/300	L/400	L/600
(m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)
1.5	34.1	22.8	17.1	13.7	11.4	9.8	8.5	5.7
2.0	15.3	10.2	7.6	6.1	5.1	4.4	3.8	2.5
2.5	8.0	5.4	4.0	3.2	2.7	2.3	2.0	1.3
3.0	4.7	3.1	2.4	1.9	1.6	1.3	1.2	
3.5	3.0	2.0	1.5	1.2	1.0			
4.0	2.0	1.3	1.0					
4.5	1.4	1.0						
5.0	1.0							

COLUMNS

1. C-Channel

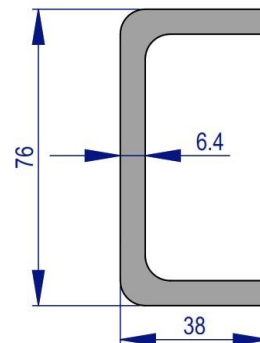
PRODUCT NAME: SC-R CS
75X35X5X6

LENGTH (M)	Compression (kN)
1.5	2.3
2.0	1.3



PRODUCT NAME: SC-R CS
76X38X6.4X6.4

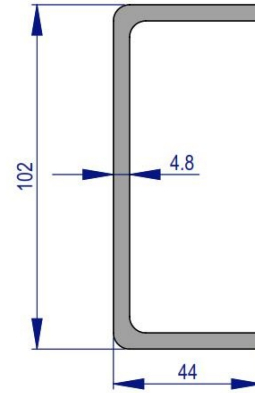
LENGTH (M)	Compression (kN)
1.5	3.5
2.0	2.0
2.5	1.3



PRODUCT NAME:

**SC-R CS
102X44X4.8X4.8**

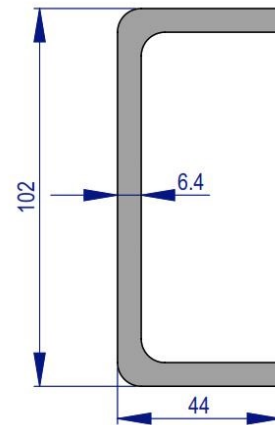
LENGTH (M)	Compression (kN)
1.5	4.6
2.0	2.6
2.5	1.7
3.0	1.2



PRODUCT NAME:

**SC-R CS
102X44X6.4X6.4**

LENGTH (M)	Compression (kN)
1.5	5.9
2.0	3.3
2.5	2.1
3.0	1.5
3.5	1.1

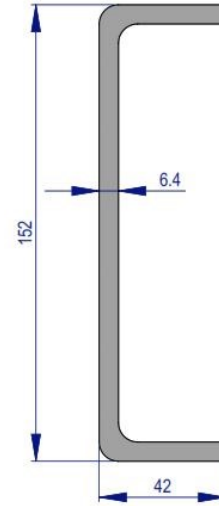


PRODUCT NAME:

SC-R CS

152X42X6.4X6.4

LENGTH (M)	Compression (kN)
1.5	5.7
2.0	3.2
2.5	2.1
3.0	1.4
3.5	1.1

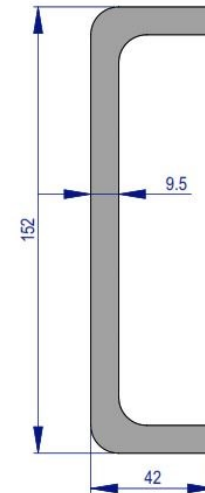


PRODUCT NAME:

SC-R CS

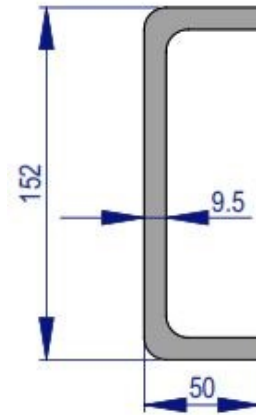
152X42X9.5X9.5

LENGTH (M)	Compression (kN)
1.5	7.8
2.0	4.4
2.5	2.8
3.0	2.0
3.5	1.4
4.0	1.1



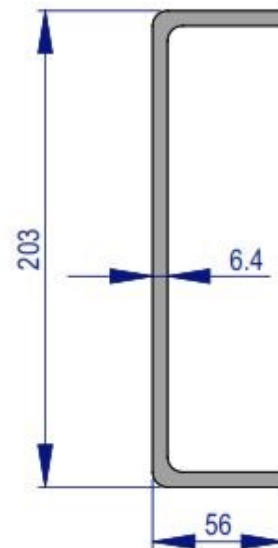
PRODUCT NAME: SC-R CS
152X50.8X9.5X9.5

LENGTH	Compression
(M)	(kN)
1.5	13.7
2.0	7.7
2.5	4.9
3.0	3.4
3.5	2.5
4.0	1.9
4.5	1.5
5.0	1.2
5.5	1.0



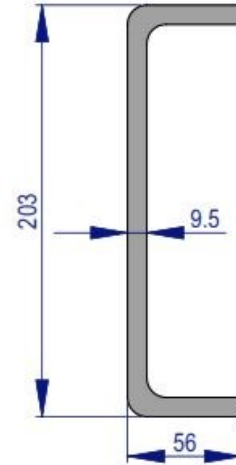
PRODUCT NAME: SC-R CS
203X56X6.4X6.4

LENGTH	Compression
(M)	(kN)
1.5	14.3
2.0	8.1
2.5	5.2
3.0	3.6
3.5	2.6
4.0	2.0
4.5	1.6
5.0	1.3
5.5	1.1



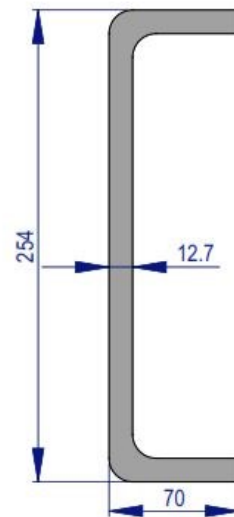
PRODUCT NAME: SC-R CS 203X56X9.5X9.5

LENGTH (M)	Compression (kN)
1.5	19.8
2.0	11.2
2.5	7.1
3.0	5.0
3.5	3.6
4.0	2.8
4.5	2.2
5.0	1.8
5.5	1.5
6.0	1.2
6.5	1.1



**PRODUCT NAME: SC-R CS
254X70X12.7X12.7**

LENGTH (M)	Compression (kN)
1.5	51.0
2.0	28.7
2.5	18.4
3.0	12.7
3.5	9.4
4.0	7.2
4.5	5.7
5.0	4.6
5.5	3.8
6.0	3.2
6.5	2.7
7.0	2.3
7.5	2.0

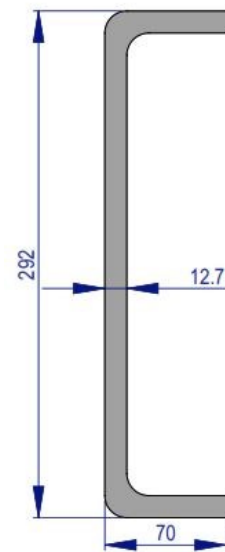


PRODUCT NAME:

SC-R CS

292X70X12.7X12.7

LENGTH (M)	Compression (kN)
1.5	52.8
2.0	29.7
2.5	19.0
3.0	13.2
3.5	9.7
4.0	7.4
4.5	5.9
5.0	4.8
5.5	3.9
6.0	3.3
6.5	2.8
7.0	2.4
7.5	2.1

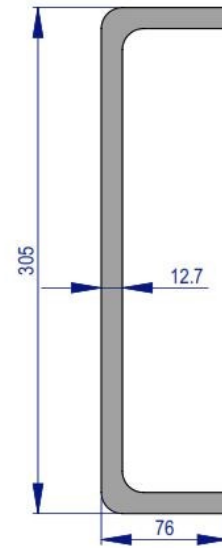


PRODUCT NAME:

SC-R CS

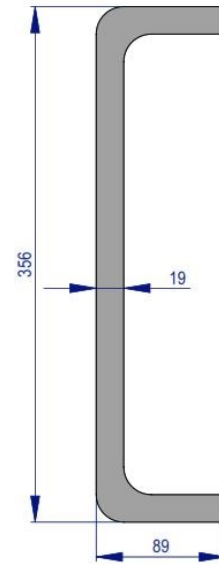
305X76X12.7X12.7

LENGTH (M)	Compression (kN)
1.5	68.2
2.0	38.3
2.5	24.5
3.0	17.0
3.5	12.5
4.0	9.6
4.5	7.6
5.0	6.1
5.5	5.1
6.0	4.3
6.5	3.6
7.0	3.1
7.5	2.7



PRODUCT NAME: SC-R CS 356X89X19X19

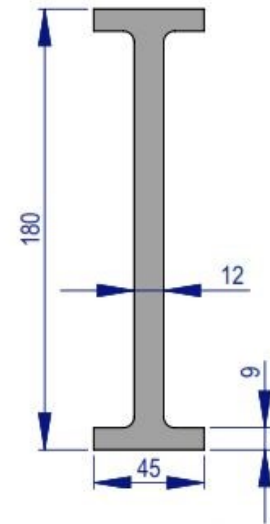
LENGTH (M)	Compression (kN)
1.5	154.8
2.0	87.1
2.5	55.7
3.0	38.7
3.5	28.4
4.0	21.8
4.5	17.2
5.0	13.9
5.5	11.5
6.0	9.7
6.5	8.2
7.0	7.1
7.5	6.2



2. I Beam

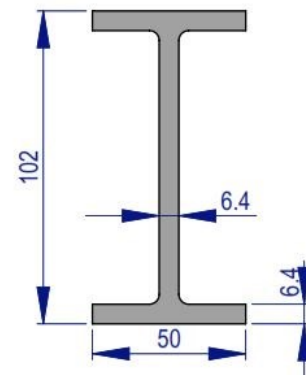
PRODUCT NAME: SC-R IB 45X9X180X12

LENGTH (M)	Compression (kN)
1.5	5.0
2.0	2.8
2.5	1.8
3.0	1.2



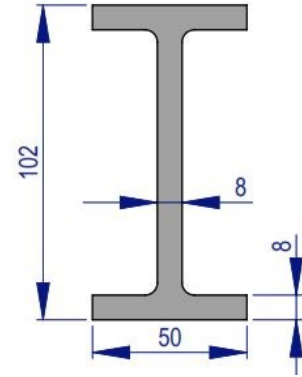
PRODUCT NAME: SC-R IB 50X102X6.4X6.4

LENGTH (M)	Compression (kN)
1.5	4.2
2.0	2.4
2.5	1.5
3.0	1.0



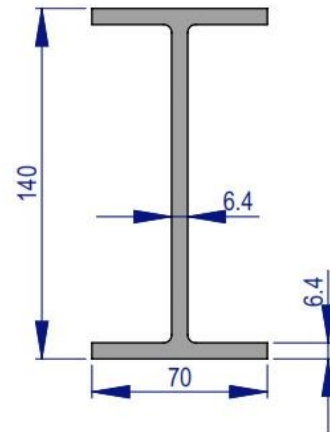
PRODUCT NAME: SC-R IB 50X102X8X8

LENGTH	Compression
(M)	(kN)
1.5	5.3
2.0	3.0
2.5	1.9
3.0	1.3



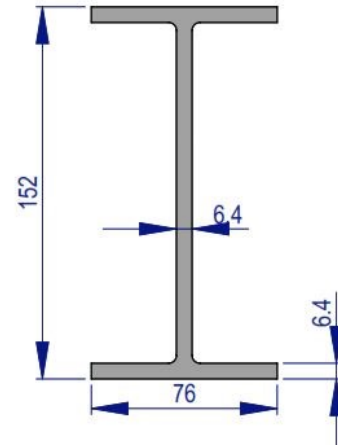
PRODUCT NAME: SC-R IB 70X140X6.35X6.35

LENGTH	Compression
(M)	(kN)
1.5	11.3
2.0	6.4
2.5	4.1
3.0	2.8
3.5	2.1
4.0	1.6
4.5	1.3
5.0	1.0



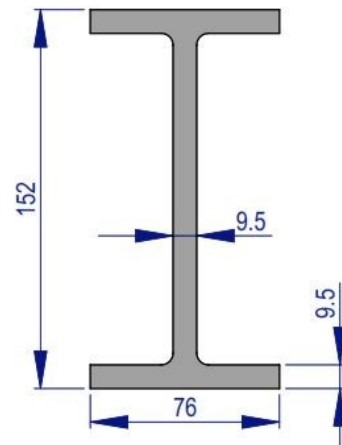
PRODUCT NAME: SC-R IB 76X152X6.4X6.4

LENGTH (M)	Compression (kN)
1.5	14.5
2.0	8.2
2.5	5.2
3.0	3.6
3.5	2.7
4.0	2.0
4.5	1.6
5.0	1.3
5.5	1.1



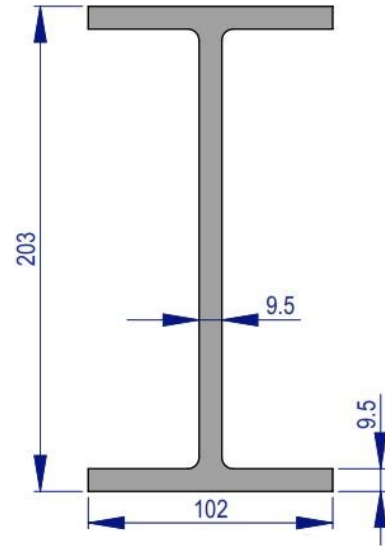
PRODUCT NAME: SC-R IB 76X152X9.5X9.5

LENGTH (M)	Compression (kN)
1.5	21.8
2.0	12.2
2.5	7.8
3.0	5.4
3.5	4.0
4.0	3.1
4.5	2.4
5.0	2.0
5.5	1.6
6.0	1.4
6.5	1.2



PRODUCT NAME: SC-R IB 102X203X9.5X9.5

LENGTH (M)	Compression (kN)
1.5	52.1
2.0	29.3
2.5	18.8
3.0	13.0
3.5	9.6
4.0	7.3
4.5	5.8
5.0	4.7
5.5	3.9
6.0	3.3
6.5	2.8
7.0	2.4
7.5	2.1

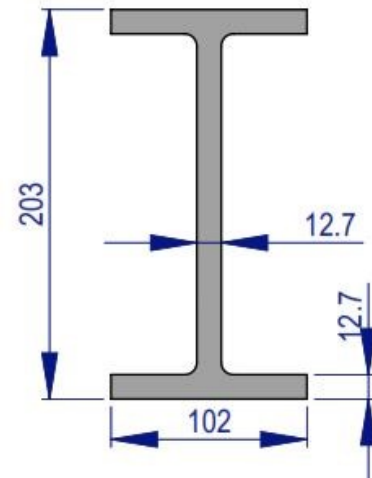


PRODUCT NAME:

SC-R IB

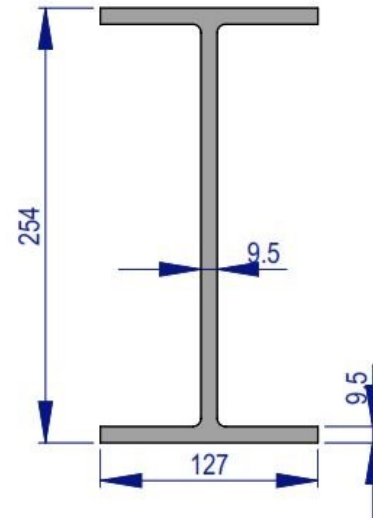
102X203X12.7X12.7

LENGTH	Compression
(M)	(kN)
1.5	70.3
2.0	39.6
2.5	25.3
3.0	17.6
3.5	12.9
4.0	9.9
4.5	7.8
5.0	6.3
5.5	5.2
6.0	4.4
6.5	3.7
7.0	3.2
7.5	2.8



PRODUCT NAME: SC-R IB 127X254X9.5X9.5

LENGTH	Compression
(M)	(kN)
1.5	65.9
2.0	56.4
2.5	36.1
3.0	25.1
3.5	18.4
4.0	14.1
4.5	11.1
5.0	9.0
5.5	7.5
6.0	6.3
6.5	5.3
7.0	4.6
7.5	4.0

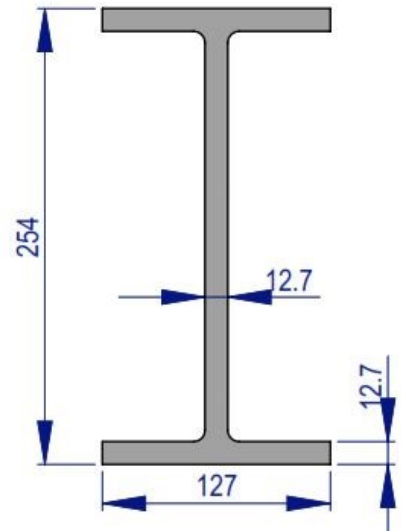


PRODUCT NAME:

SC-R IB

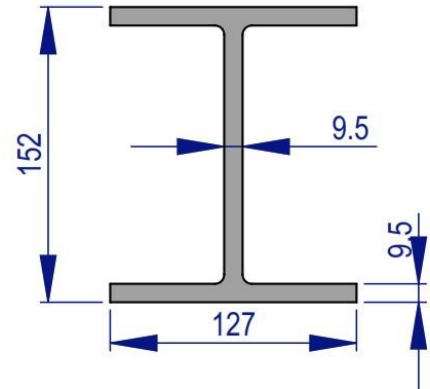
127X254X12.7X12.7

LENGTH (M)	Compression (kN)
1.5	134.8
2.0	75.8
2.5	48.5
3.0	33.7
3.5	24.8
4.0	19.0
4.5	15.0
5.0	12.1
5.5	10.0
6.0	8.4
6.5	7.2
7.0	6.2
7.5	5.4



PRODUCT NAME: SC-R IB 127X152X9.5X9.5

LENGTH (M)	Compression (kN)
1.5	84.2
2.0	56.3
2.5	36.0
3.0	25.0
3.5	18.4
4.0	14.1
4.5	11.1
5.0	9.0
5.5	7.4
6.0	6.3
6.5	5.3
7.0	4.6
7.5	4.0

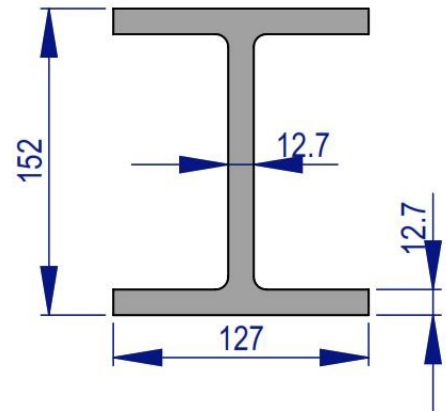


PRODUCT NAME:

SC-R IB

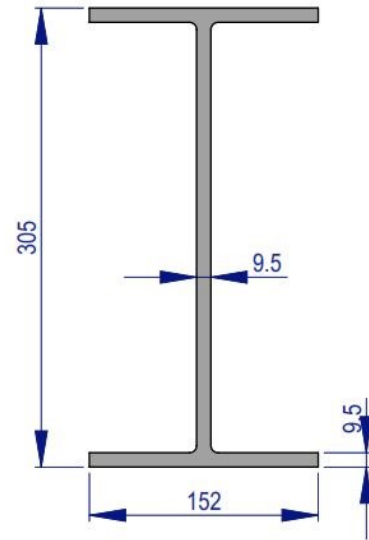
127X152X12.7X12.7

LENGTH (M)	Compression (kN)
1.5	134.2
2.0	75.5
2.5	48.3
3.0	33.6
3.5	24.7
4.0	18.9
4.5	14.9
5.0	12.1
5.5	10.0
6.0	8.4
6.5	7.1
7.0	6.2
7.5	5.4



PRODUCT NAME: SC-R IB 152X305X9.5X9.5

LENGTH (M)	Compression (kN)
1.5	50.4
2.0	50.4
2.5	36.1
3.0	25.1
3.5	18.4
4.0	14.1
4.5	11.2
5.0	9.0
5.5	7.5
6.0	6.3
6.5	5.3
7.0	4.6
7.5	4.0

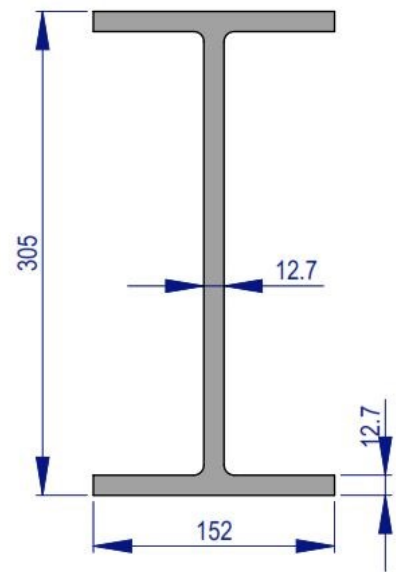


PRODUCT NAME:

SC-R IB

152X305X12.7X12.7

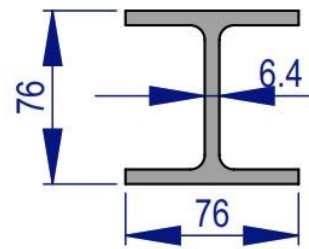
LENGTH (M)	Compression (kN)
1.5	119.7
2.0	76.0
2.5	48.6
3.0	33.8
3.5	24.8
4.0	19.0
4.5	15.0
5.0	12.2
5.5	10.0
6.0	8.4
6.5	7.2
7.0	6.2
7.5	5.4



3. Wide Flange

PRODUCT NAME: SC-R WF 76X76X6.4X6.4

LENGTH (M)	Compression (kN)
1.5	14.4
2	8.1
2.5	5.2
3	3.6
3.5	2.7
4	2.0
4.5	1.6
5	1.3
5.5	1.1

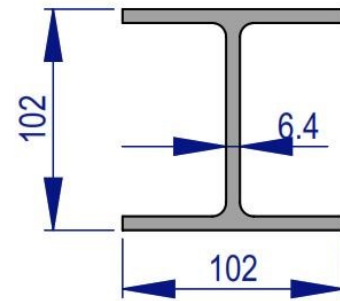


PRODUCT NAME:

SC-R WF

102X102X6.4X6.4

LENGTH (M)	Compression (kN)
1.5	30.2
2	19.6
2.5	12.5
3	8.7
3.5	6.4
4	4.9
4.5	3.9
5	3.1
5.5	2.6
6	2.2
6.5	1.9
7	1.6
7.5	1.4

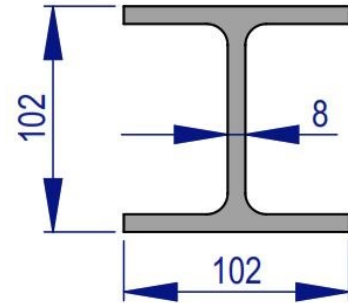


PRODUCT NAME:

SC-R WF

102X102X8.0X8.0

LENGTH (M)	Compression (kN)
1.5	43.6
2	24.5
2.5	15.7
3	10.9
3.5	8.0
4	6.1
4.5	4.8
5	3.9
5.5	3.2
6	2.7
6.5	2.3
7	2.0
7.5	1.7

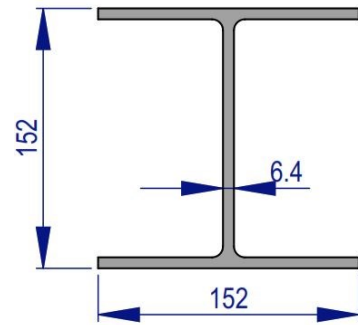


PRODUCT NAME:

SC-R WF

152X152X6.4X6.4

LENGTH (M)	Compression (kN)
1.5	20.5
2	20.5
2.5	20.5
3	20.5
3.5	20.5
4	16.2
4.5	12.8
5	10.4
5.5	8.6
6	7.2
6.5	6.1
7	5.3
7.5	4.6

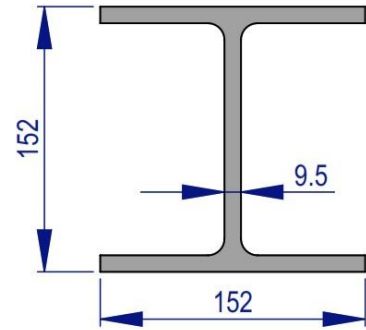


PRODUCT NAME:

SC-R WF

152X152X9.5X9.5

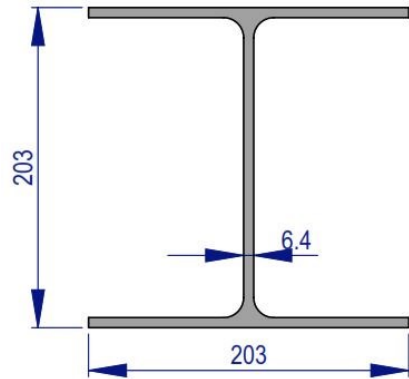
LENGTH (M)	Compression (kN)
1.5	66.2
2	66.2
2.5	61.6
3	42.8
3.5	31.4
4	24.1
4.5	19.0
5	15.4
5.5	12.7
6	10.7
6.5	9.1
7	7.9
7.5	6.8



PRODUCT NAME:

**SC-R WF
203X203X6.4X6.4**

LENGTH (M)	Compression (kN)
1.5	15.3
2	15.3
2.5	15.3
3	15.3
3.5	15.3
4	15.3
4.5	15.3
5	15.3
5.5	15.3
6	15.3
6.5	14.6
7	12.6
7.5	11.0

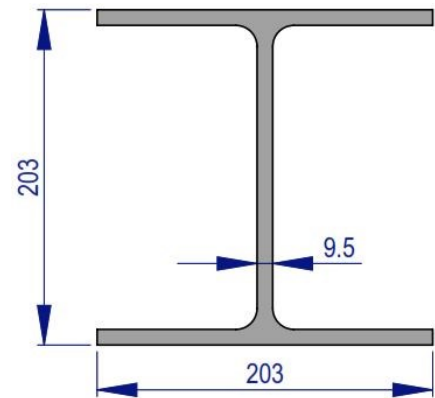


PRODUCT NAME:

SC-R WF

203X203X9.5X9.5

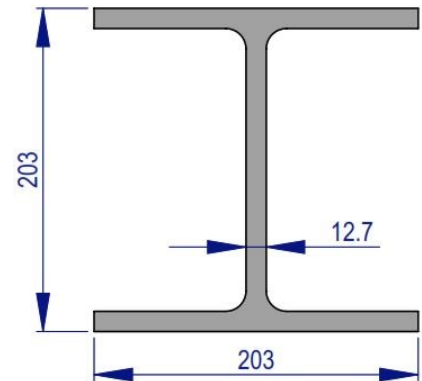
LENGTH (M)	Compression (kN)
1.5	49.8
2	49.8
2.5	49.8
3	49.8
3.5	49.8
4	49.8
4.5	45.2
5	36.7
5.5	30.3
6	25.5
6.5	21.7
7	18.7
7.5	16.3



PRODUCT NAME:

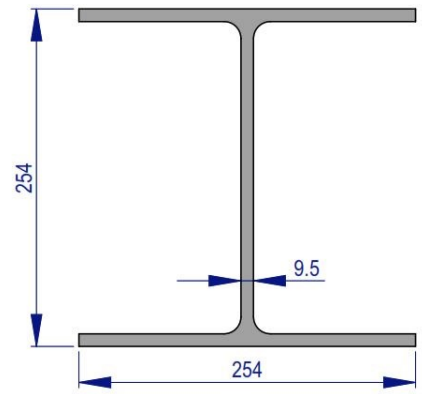
**SC-R WF
203X203.X12.7X12.7**

LENGTH (M)	Compression (kN)
1.5	118.4
2	118.4
2.5	118.4
3	118.4
3.5	100.1
4	76.6
4.5	60.6
5	49.1
5.5	40.5
6	34.1
6.5	29.0
7	25.0
7.5	21.8



PRODUCT NAME: SC-R WF 254X254X9.5X9.5

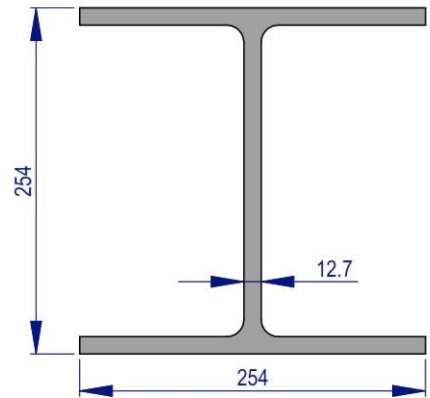
LENGTH	Compression
(M)	(kN)
1.5	40.0
2	40.0
2.5	40.0
3	40.0
3.5	40.0
4	40.0
4.5	40.0
5	40.0
5.5	40.0
6	40.0
6.5	40.0
7	36.6
7.5	31.9



PRODUCT NAME:

**SC-R WF
254X254X12.7X12.7**

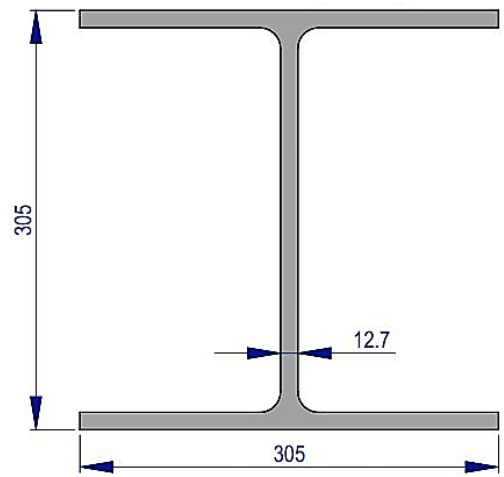
LENGTH (M)	Compression (kN)
1.5	95.1
2	95.1
2.5	95.1
3	95.1
3.5	95.1
4	95.1
4.5	95.1
5	95.1
5.5	79.3
6	66.7
6.5	56.8
7	49.0
7.5	42.7



PRODUCT NAME:

**SC-R WF
305X305X12.7X12.7**

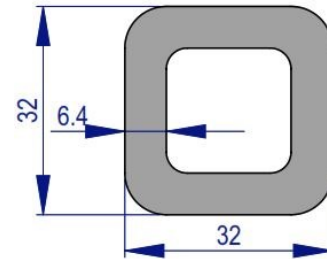
LENGTH (M)	Compression (kN)
1.5	79.4
2	79.4
2.5	79.4
3	79.4
3.5	79.4
4	79.4
4.5	79.4
5	79.4
5.5	79.4
6	79.4
6.5	79.4
7	79.4
7.5	73.8



4. Square Hollow Section

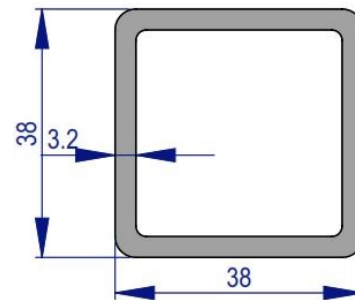
PRODUCT NAME: SC-R SHS32X32X6.4

LENGTH (M)	Compression (kN)
1.5	2.3
2.0	1.3



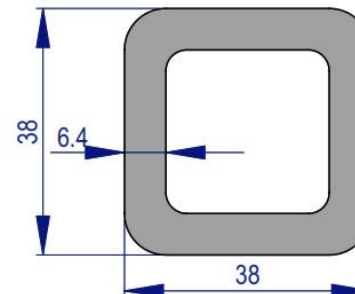
PRODUCT NAME: SC-R SHS38X38X3.2

LENGTH (M)	Compression (kN)
1.5	2.7
2.0	1.5



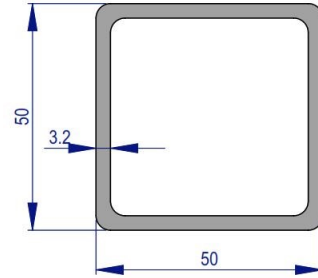
PRODUCT NAME: SC-R SHS38X38X6.4

LENGTH (M)	Compression (kN)
1.5	4.2
2.0	2.4
2.5	1.5
3.0	1.1



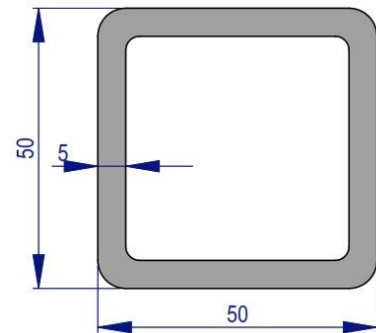
PRODUCT NAME: SC-R SHS50X50X3.2

LENGTH (M)	Compression (kN)
1.5	6.7
2.0	3.7
2.5	2.4
3.0	1.7
3.5	1.2



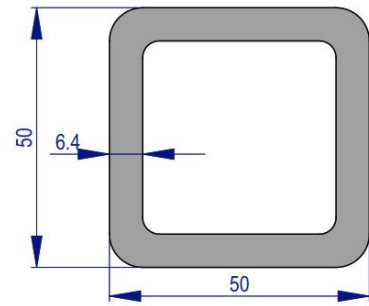
PRODUCT NAME: SC-R SHS50X50X5

LENGTH (M)	Compression (kN)
1.5	9.3
2.0	5.3
2.5	3.4
3.0	2.3
3.5	1.7
4.0	1.3
4.5	1.0



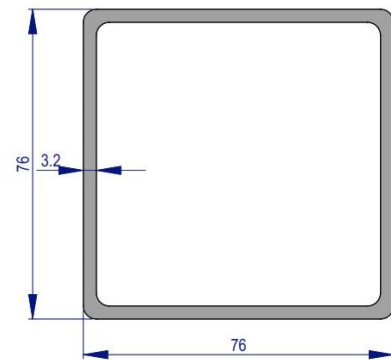
PRODUCT NAME: SC-R SHS50X50X6.4

LENGTH (M)	Compression (kN)
1.5	11.0
2.0	6.2
2.5	4.0
3.0	2.7
3.5	2.0
4.0	1.5
4.5	1.2



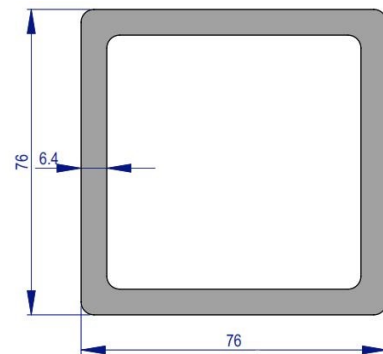
PRODUCT NAME: SC-R SHS76X76X3.2

LENGTH (M)	Compression (kN)
1.5	16.4
2.0	14.1
2.5	9.0
3.0	6.3
3.5	4.6
4.0	3.5
4.5	2.8
5.0	2.3
5.5	1.9
6.0	1.6
6.5	1.3
7.0	1.2
7.5	1.0



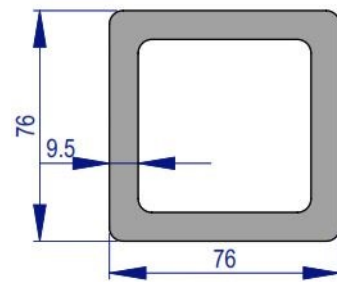
PRODUCT NAME: SC-R SHS76X76X6.4

LENGTH (M)	Compression (kN)
1.5	44.4
2.0	24.9
2.5	16.0
3.0	11.1
3.5	8.1
4.0	6.2
4.5	4.9
5.0	4.0
5.5	3.3
6.0	2.8
6.5	2.4
7.0	2.0
7.5	1.8



PRODUCT NAME: SC-R SHS76X76X9.5

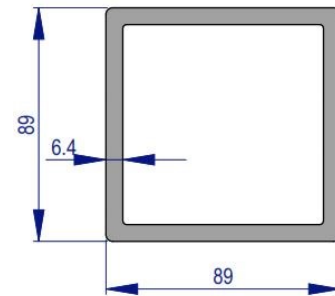
LENGTH (M)	Compression (kN)
1.5	57.6
2.0	32.4
2.5	20.7
3.0	14.4
3.5	10.6
4.0	8.1
4.5	6.4
5.0	5.2
5.5	4.3
6.0	3.6
6.5	3.1
7.0	2.6
7.5	2.3



PRODUCT NAME:

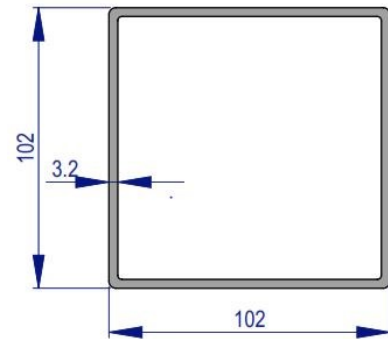
SC-R SHS89X89X6.4

LENGTH (M)	Compression (kN)
1.5	74.0
2.0	41.6
2.5	26.6
3.0	18.5
3.5	13.6
4.0	10.4
4.5	8.2
5.0	6.7
5.5	5.5
6.0	4.6
6.5	3.9
7.0	3.4
7.5	3.0



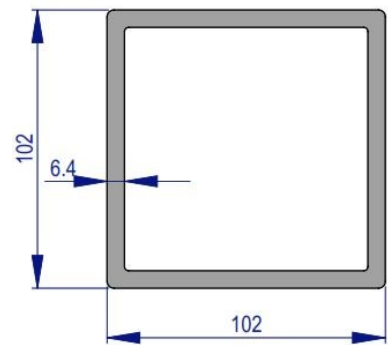
PRODUCT NAME: SC-R SHS102X102X3.2

LENGTH (M)	Compression (kN)
1.5	12.4
2.0	12.4
2.5	12.4
3.0	12.4
3.5	11.6
4.0	8.8
4.5	7.0
5.0	5.7
5.5	4.7
6.0	3.9
6.5	3.4
7.0	2.9
7.5	2.5



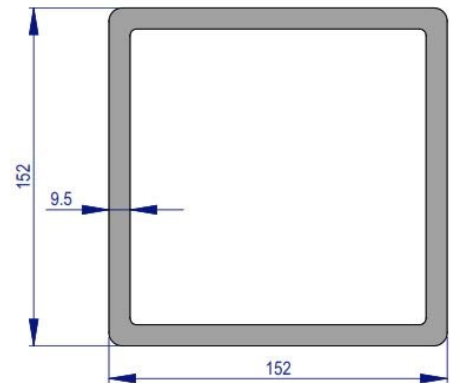
PRODUCT NAME: SC-R SHS102X102X6.4

LENGTH (M)	Compression (kN)
1.5	95.9
2.0	64.5
2.5	41.3
3.0	28.7
3.5	21.1
4.0	16.1
4.5	12.7
5.0	10.3
5.5	8.5
6.0	7.2
6.5	6.1
7.0	5.3
7.5	4.6



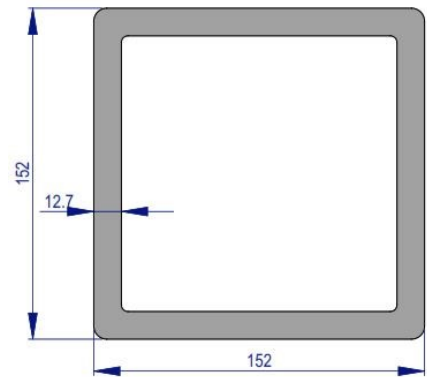
PRODUCT NAME: SC-R SHS152X152X9.5

LENGTH (M)	Compression (kN)
1.5	209.8
2.0	209.8
2.5	201.8
3.0	140.1
3.5	103.0
4.0	78.8
4.5	62.3
5.0	50.5
5.5	41.7
6.0	35.0
6.5	29.9
7.0	25.7
7.5	22.4



PRODUCT NAME: SC-R SHS152X152X12.7

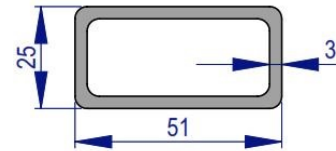
LENGTH (M)	Compression (kN)
1.5	490.6
2.0	395.9
2.5	253.4
3.0	176.0
3.5	129.3
4.0	99.0
4.5	78.2
5.0	63.3
5.5	52.3
6.0	44.0
6.5	37.5
7.0	32.3
7.5	28.2



5. Rectangular Hollow Section

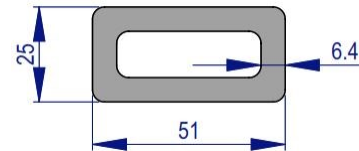
PRODUCT NAME: SC-R RHS51X25X3

LENGTH (M)	Compression (kN)
1.5	1.2



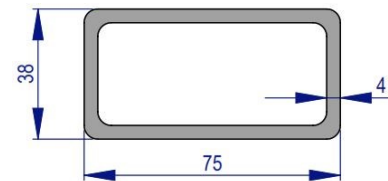
PRODUCT NAME: SC-R RHS51X25X6.4

LENGTH (M)	Compression (kN)
1.5	1.8
2.0	1.0



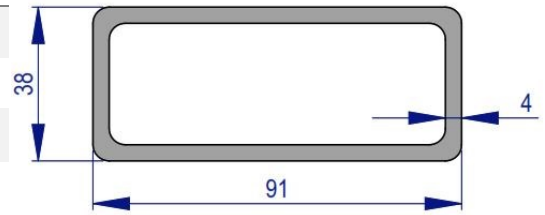
PRODUCT NAME: SC-R RHS75X38X4

LENGTH (M)	Compression (kN)
1.5	5.9
2.0	3.3
2.5	2.1
3.0	1.5
3.5	1.1



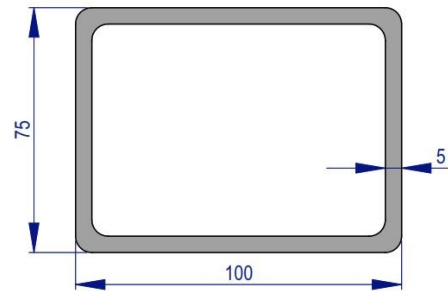
PRODUCT NAME: SC-R RHS91X38X4

LENGTH (M)	Compression (kN)
1.5	7.1
2.0	4.0
2.5	2.5
3.0	1.8
3.5	1.3



PRODUCT NAME: SC-R RHS100X75X5X5

LENGTH (M)	Compression (kN)
1.5	41.0
2.0	25.0
2.5	16.0
3.0	11.1
3.5	8.2
4.0	6.2
4.5	4.9
5.0	4.0
5.5	3.3
6.0	2.8
6.5	2.4
7.0	2.0
7.5	1.8

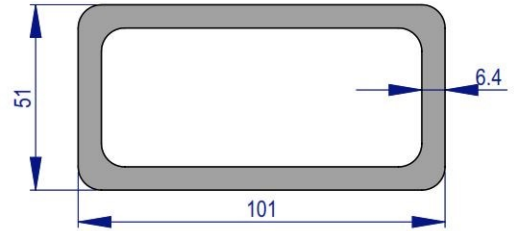


PRODUCT NAME:

SC-R

RHS101X51X6.35X6.35

LENGTH (M)	Compression (kN)
1.5	21.4
2.0	12.1
2.5	7.7
3.0	5.4
3.5	3.9
4.0	3.0
4.5	2.4
5.0	1.9
5.5	1.6
6.0	1.3
6.5	1.1



PRODUCT NAME:

SC-R

RHS150X100X6.35X6.35

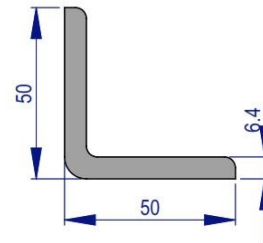
LENGTH (M)	Compression (kN)
1.5	54.1
2.0	54.1
2.5	54.1
3.0	37.5
3.5	27.6
4.0	21.1
4.5	16.7
5.0	13.5
5.5	11.2
6.0	9.4
6.5	8.0
7.0	6.9
7.5	6.0



6. Equal Angle

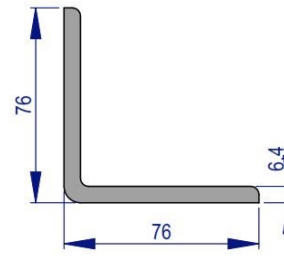
PRODUCT NAME: SC-R EA50X50X6.4

LENGTH (M)	Compression (kN)
1.5	1.7



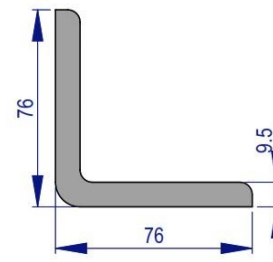
PRODUCT NAME: SC-R EA76X76X6.4

LENGTH (M)	Compression (kN)
1.5	6.4
2.0	3.6
2.5	2.3
3.0	1.6
3.5	1.2



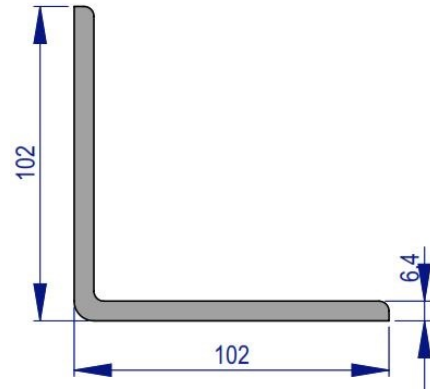
PRODUCT NAME: SC-R EA76X76X9.5

LENGTH (M)	Compression (kN)
1.5	9.1
2.0	5.1
2.5	3.3
3.0	2.3
3.5	1.7
4.0	1.3
4.5	1.0



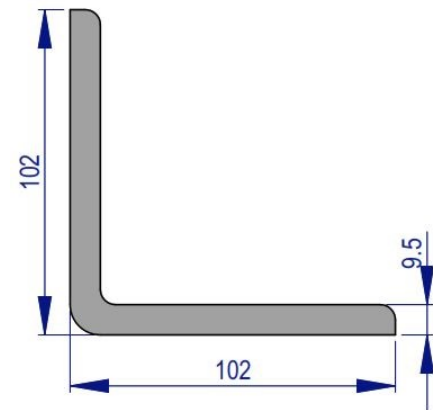
PRODUCT NAME: SC-R EA102X102X6.4

LENGTH (M)	Compression (kN)
1.5	4.9
2.0	4.9
2.5	4.9
3.0	3.9
3.5	2.9
4.0	2.2
4.5	1.7
5.0	1.4
5.5	1.2



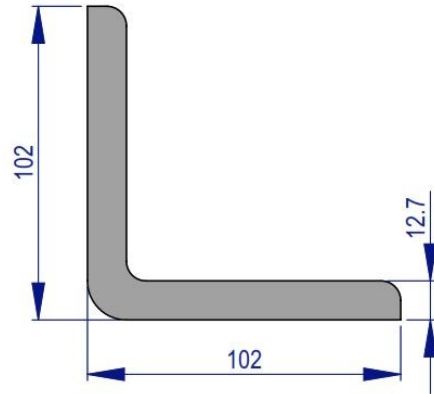
PRODUCT NAME: SC-R EA102X102X9.5

LENGTH (M)	Compression (kN)
1.5	15.9
2.0	12.4
2.5	7.9
3.0	5.5
3.5	4.0
4.0	3.1
4.5	2.4
5.0	2.0
5.5	1.6
6.0	1.4
6.5	1.2
7.0	1.0



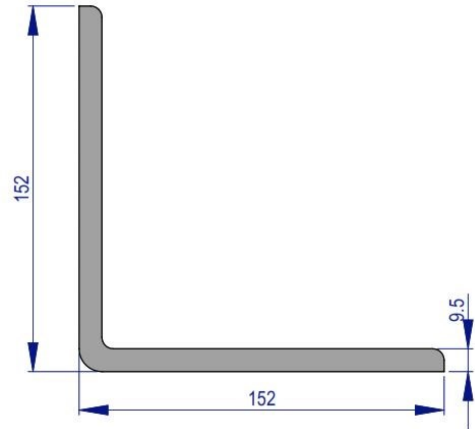
PRODUCT NAME: SC-R EA102X102X12.7

LENGTH	Compression
(M)	(kN)
1.5	29.0
2.0	16.3
2.5	10.4
3.0	7.2
3.5	5.3
4.0	4.1
4.5	3.2
5.0	2.6
5.5	2.2
6.0	1.8
6.5	1.5
7.0	1.3
7.5	1.2



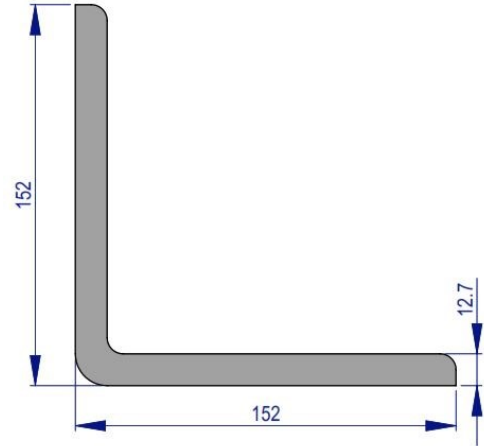
PRODUCT NAME: SC-R EA152X152X9.5

LENGTH	Compression
(M)	(kN)
1.5	10.9
2.0	10.9
2.5	10.9
3.0	10.9
3.5	10.9
4.0	10.9
4.5	8.6
5.0	7.0
5.5	5.8
6.0	4.8
6.5	4.1
7.0	3.6
7.5	3.1



PRODUCT NAME: SC-R EA152X152X12.7

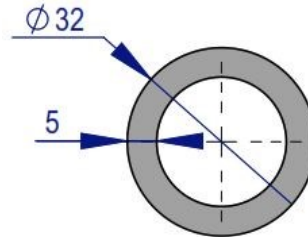
LENGTH	Compression
(M)	(kN)
1.5	25.8
2.0	25.8
2.5	25.8
3.0	25.1
3.5	18.4
4.0	14.1
4.5	11.1
5.0	9.0
5.5	7.5
6.0	6.3
6.5	5.3
7.0	4.6
7.5	4.0



7. Round Tube

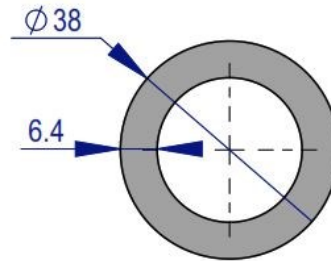
PRODUCT NAME: SC-R RT32X5

LENGTH (M)	Compression (kN)
1.5	1.2



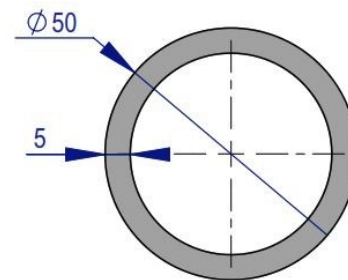
PRODUCT NAME: SC-R RT38X3.2

LENGTH (M)	Compression (kN)
1.5	1.6



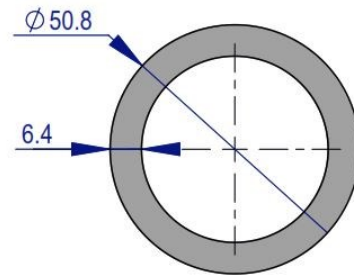
PRODUCT NAME: SC-R RT50X5

LENGTH (M)	Compression (kN)
1.5	5.5
2.0	3.1
2.5	2.0
3.0	1.4
3.5	1.0



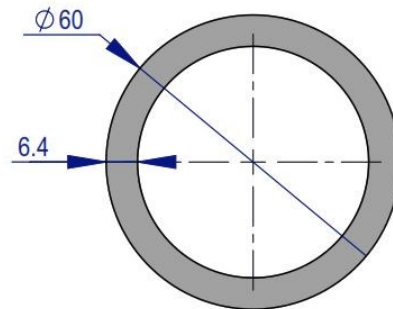
PRODUCT NAME: SC-R RT50.8X6.4

LENGTH (M)	Compression (kN)
1.5	6.8
2.0	3.9
2.5	2.5
3.0	1.7
3.5	1.3



PRODUCT NAME: SC-R RT60X6.4

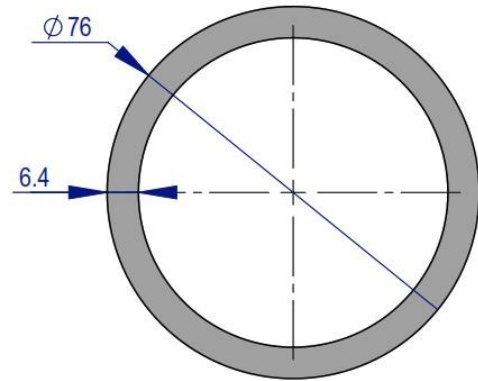
LENGTH (M)	Compression (kN)
1.5	12.1
2.0	6.8
2.5	4.4
3.0	3.0
3.5	2.2
4.0	1.7
4.5	1.3
5.0	1.1



PRODUCT NAME:

SC-R RT76X6.4

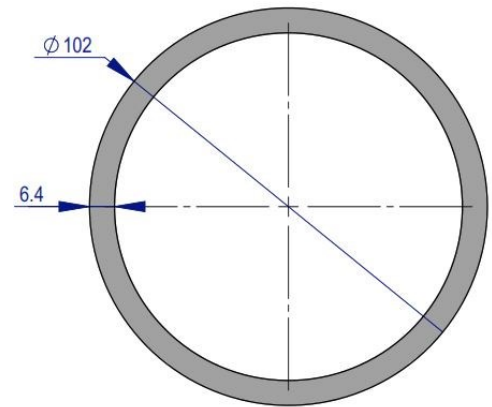
LENGTH	Compression
(M)	(kN)
1.5	26.1
2.0	14.7
2.5	9.4
3.0	6.5
3.5	4.8
4.0	3.7
4.5	2.9
5.0	2.3
5.5	1.9
6.0	1.6
6.5	1.4
7.0	1.2
7.5	1.0



PRODUCT NAME:

SC-R RT102X6.4

LENGTH	Compression
(M)	(kN)
1.5	65.2
2.0	36.7
2.5	23.5
3.0	16.3
3.5	12.0
4.0	9.2
4.5	7.2
5.0	5.9
5.5	4.8
6.0	4.1
6.5	3.5
7.0	3.0
7.5	2.6



Disclaimer

The SC-R Design Manual has been developed through extensive collaboration with renowned High-Mat, alongside rigorous laboratory testing, including full-scale experiments. The values and references provided in this manual reflect the best knowledge available to Staircare. While every effort has been made to ensure accuracy, Staircare cannot assume liability for any potential errors or omissions in this manual.

It is important to acknowledge that the data and references presented in this manual are subject to change without prior notice. As composite material profiles can be manufactured in a wide array of variations and qualities, it is crucial to recognize that two profiles with identical geometries may possess different properties. Therefore, the Staircare Design Manual is specifically applicable to the designated Staircare qualities, ensuring reliable and accurate results for your composite projects.