

# RB

## Reduced Base Threaded Studs

### Stud Material :

- Mild Steel 4.8
- Stainless Steel 1.4301/1.4303
- Stainless Steel 1.4571

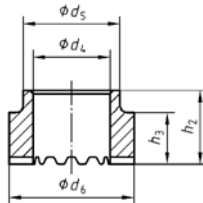
d	l	h <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	y	Ferrule
<b>M 6</b>	x 15	2.5	4.7	6.5	4.5	SR 6
	20	2.5	4.7	6.5	4.5	SR 6
	25	2.5	4.7	6.5	4.5	SR 6
	30	2.5	4.7	6.5	4.5	SR 6
	35	2.5	4.7	6.5	4.5	SR 6
	40	2.5	4.7	6.5	4.5	SR 6
	45	2.5	4.7	6.5	4.5	SR 6
	50	2.5	4.7	6.5	4.5	SR 6
<b>M 8</b>	x 20	2.5	6.2	8.8	4.5	SR 8
	25	2.5	6.2	8.8	4.5	SR 8
	30	2.5	6.2	8.8	4.5	SR 8
	35	2.5	6.2	8.8	4.5	SR 8
	40	2.5	6.2	8.8	4.5	SR 8
	45	2.5	6.2	8.8	4.5	SR 8
<b>M 10</b>	x 20	3.0	7.9	11.0	5.0	SR 10
	25	3.0	7.9	11.0	5.0	SR 10
	30	3.0	7.9	11.0	5.0	SR 10
	35	3.0	7.9	11.0	5.0	SR 10
	40	3.0	7.9	11.0	5.0	SR 10
	45	3.0	7.9	11.0	5.0	SR 10
	50	3.0	7.9	11.0	5.0	SR 10
	55	3.0	7.9	11.0	5.0	SR 10
<b>M 12</b>	x 20	4.0	9.5	13.0	6.5	SR 12
	25	4.0	9.5	13.0	6.5	SR 12
	30	4.0	9.5	13.0	6.5	SR 12
	35	4.0	9.5	13.0	6.5	SR 12
	40	4.0	9.5	13.0	6.5	SR 12
	45	4.0	9.5	13.0	6.5	SR 12
	50	4.0	9.5	13.0	6.5	SR 12
	55	4.0	9.5	13.0	6.5	SR 12

d	l	h <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	y	Ferrule	
<b>M 14</b>	x 25	4.5	11.0	15.0	7.1	SR 14	
	30	4.5	11.0	15.0	7.1	SR 14	
	35	4.5	11.0	15.0	7.1	SR 14	
	40	4.5	11.0	15.0	7.1	SR 14	
	45	4.5	11.0	15.0	7.1	SR 14	
	50	4.5	11.0	15.0	7.1	SR 14	
	55	4.5	11.0	15.0	7.1	SR 14	
	60	4.5	11.0	15.0	7.1	SR 14	
	<b>M 16</b>	x 30	5.0	13.2	17.0	11.0	SR 16
		35	5.0	13.2	17.0	11.0	SR 16
40		5.0	13.2	17.0	11.0	SR 16	
45		5.0	13.2	17.0	11.0	SR 16	
50		5.0	13.2	17.0	11.0	SR 16	
55		5.0	13.2	17.0	11.0	SR 16	
60		5.0	13.2	17.0	11.0	SR 16	
65		5.0	13.2	17.0	11.0	SR 16	
<b>M 20</b>		x 30	6.0	16.5	21.0	13.0	SR 20
	35	6.0	16.5	21.0	13.0	SR 20	
	40	6.0	16.5	21.0	13.0	SR 20	
	45	6.0	16.5	21.0	13.0	SR 20	
	50	6.0	16.5	21.0	13.0	SR 20	
	55	6.0	16.5	21.0	13.0	SR 20	
	60	6.0	16.5	21.0	13.0	SR 20	
	65	6.0	16.5	21.0	13.0	SR 20	
	70	6.0	16.5	21.0	13.0	SR 20	
	<b>M 24</b>	x 35	7.0	20.0	28.0	15.0	SN 20
40		7.0	20.0	28.0	15.0	SN 20	
45		7.0	20.0	28.0	15.0	SN 20	
50		7.0	20.0	28.0	15.0	SN 20	
55		7.0	20.0	28.0	15.0	SN 20	
60		7.0	20.0	28.0	15.0	SN 20	
65		7.0	20.0	28.0	15.0	SN 20	
70		7.0	20.0	28.0	15.0	SN 20	
80		7.0	20.0	28.0	15.0	SN 20	
90		7.0	20.0	28.0	15.0	SN 20	
100	7.0	20.0	28.0	15.0	SN 20		

Dimensions in mm. We can supply other lengths or dimensions upon request

### Dimensions of ceramic ferrules for threaded studs with Reduced Base (RB)

Form	d4 +0,4	d5 ±1	d6 ±1	h2 ≈
SR 6	6,2	9,6	11,5	9,9
SR 8	8,2	11,3	15,4	8,5
SR 10	10,2	14,8	17,8	11,0
SR 12	12,2	16,5	20,0	13,0
SR 14	14,3	20,0	23,6	12,3
SR 16	16,3	20,0	26,2	14,7
SR 20	20,4	26,2	31,5	17,1



# THOMAS

Welding systems

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Basic engineering specifications, which cover all of the studs listed in this publication regardless of size or shape, are detailed below.

## 1. Stud material

- **Non-alloyed steel**

All THOMAS low carbon steel studs are 4.8 steel (weldable) made to our specifications.

This type of steel offers excellent welding quality.

The analysis conforms to S235 J2G3 / 4.8 according to EN 10025.

The raw material specifications mentioned conform with EN 13918 and EN 14555.

For all standard studs made of material 4.8, we guarantee mechanical properties in accordance with EN 20898-1:

Yield point	(Re)	min. 340 N/mm <sup>2</sup>
Tensile strengths	(Rm)	min. 420 N/mm <sup>2</sup>
Elongation	(A5)	min. 14%

- **Stainless steel 1.4301/1.4303 or 1.4571**

THOMAS studs are manufactured from material type 1.4301/ 1.4303 or 1.4571 conforming to EN ISO 3506-1.

The raw material specifications mentioned conform with EN 13918 and EN 14555.

The mechanical properties for threaded studs depend on the type of treatment applied to the material, with the following values guaranteed as minimums:

Yield point	(R <sub>p0.2</sub> )	min. 195 N/mm <sup>2</sup>
Tensile strengths	(Rm)	min. 500 N/mm <sup>2</sup>
Elongation	(A5)	min. 25%

- Upon request, for all stud material, certificates of chemical analysis and mechanical properties can be supplied. This conforms to EN 10204.

## 2. Stud dimensions

Stud dimensions as given in the dimensional sheet meet the EN 13918 specifications. The length dimension *l* is the overall length of the stud AFTER WELD. i.e. THOMAS studs are always longer than the nominal length ordered. The delivered studs are 1 – 5 mm longer depending on the diameter of the stud. Our studs comply with product grade A as specified in ISO 4759-1.

## 3. Threads

All threads are cold rolled. (Therefore the flow-line of material is not interrupted.) The surface quality is considerably improved, and its strength is doubled. The thread is less subject to wear and offers more resistance to corrosion. All THOMAS studs are fitted with threads in accordance with DIN 13, Sheet 20, 6g

## 4. Plating Available

Unless otherwise specified in the order, all THOMAS studs will be supplied in bright condition.

Upon request, the following types of surface protection can be supplied:

- a) Zinc plating
- b) Zinc die-chromating
- c) Copper plating
- d) Nickel plating

## 5. Flux

All THOMAS studs are flux filled. The quality and amount of flux used is an essential factor for obtaining perfect and consistent weld quality.

## 6. Ferrules

For welding engineering reasons all stud types must be welded using a ceramic ferrule. Accordingly, suitable ceramic ferrules will be included in every stud shipment.

## 7. Ordering information

The following specifications are required when ordering :

- a) Type of stud
- b) Stud diameter "d"
- c) Stud length "l"
- d) Material
- e) Surface protection

Ordering example: RB M 8 x 25 in zinged steel.