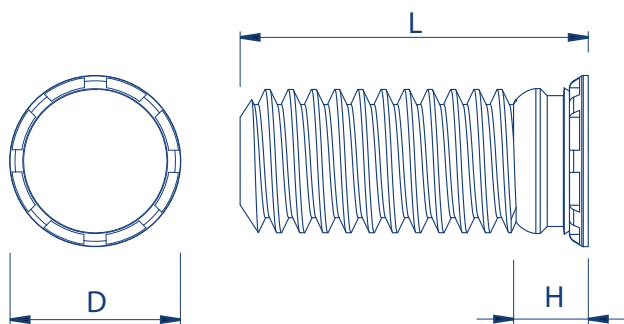


Low Displacement Flush Head Studs

TR-FHL/TR-FHLS



Zinc Plated Steel : TR-FHL | Stainless Steel : TR-FHLS



Metric Dimensions

Thread	M2.5	M3	M4	M5
D ±0.4	3.15	3.65	4.65	5.9
H max	2.1	2.1	2.4	2.7
Min sheet thickness	1	1	1	1
Hole +0.08	2.5	3	4	5
Min distance to edge of sheet	2.8	3.3	4.3	5.6

Preferred Range

Thread	M2.5	M3	M4	M5
Length ±0.4	6	•	•	•
	8	•	•	•
	10	•	•	•
	12	•	•	•
	15	•	•	•
	18	•	•	•
	20		•	•
	25		•	•
	30			•

Low Displacement Flush Head Studs

TR-FHL/TR-FHLS



Metric Performance Data: TR-FHL / TR-FHLS

Thread		M2.5	M3	M4	M5
Test sheet thickness	Aluminium - HRB 33	1.2	1.2	1.2	1.2
	Steel - HRB 55	1.1	1.1	1.1	1.1
Installation (kN)	Aluminium	3.2	4.5	5.4	11.1
	Steel	5.4	5.4	6.7	20.1
Pushout (N)	Aluminium	286	286	370	535
	Steel	451	476	555	1010
Torque-out (Nm)	Aluminium	0.56	0.66	1.2	2.2
	Steel	1.2	1.3	2.2	4.5
Pull through (N)	Aluminium	1250	1300	1560	1900
	Steel	2290	2550	3350	3760

These tests have been conducted in laboratory conditions, these figures should therefore be used for guidance only.

All data is correct to the best of our knowledge, however TR cannot be held responsible for any errors or omissions.

FHL - Recommended for use in steel or aluminium sheets: HRB 80 or less.

FHLS - Recommended for use in steel or aluminium sheets: HRB 70 or less.