VALENTE SINCE 1919 SPA
One hundred years of reliability

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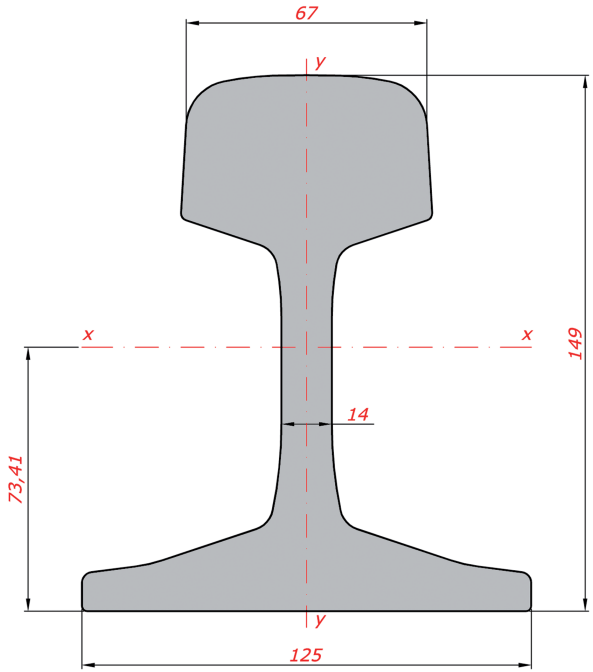
ISO 9001:2015 Certified

RAILWAY RAILS
RAIL 49 E1 (S49)



MASS	49.39	[Kg/m]
AREA	62.92	[cm²]
MOMENT OF INERTIA X-X	1816	[cm⁴]
MOMENT OF INERTIA Y-Y	319.1	[cm⁴]
SECTION MODULUS X-X – HEAD	240.3	[cm³]
SECTION MODULUS X-X – BASE	247.5	[cm³]
SECTION MODULUS Y-Y	51	[cm³]

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SUITABLE FASTENING SYSTEM FOR RAIL 49 E1 (S49)

INDIRECT FIXING

WITH PAD

FASTENING SERIES	LATERAL ADJUSTMENT [mm]	SIDE LOAD [KN]	TORQUE TIGHTENING [Nm]	FASTENING SYSTEM
VALEX 1004	10	60	175	VALEX 1004-33-22
VALEX 3016	–	–	–	–
VALEX 3116	–	90	175	VALEX 3116-28-05
VALEX 5016	10	70	150	VALEX 5016-34-15
VALEX 5020	14	140	275	VALEX 5020-42-13
VALEX 5024	–	–	–	–
VALEX 5116	10	165	150	VALEX 5116-34-15
VALEX 5120	14	250	275	VALEX 5120-43-13
VALEX 5124	–	–	–	–
VALEX 9022	–	–	–	–

WITHOUT PAD

FASTENING SERIES	LATERAL ADJUSTMENT [mm]	SIDE LOAD [KN]	TORQUE TIGHTENING [Nm]	FASTENING SYSTEM
VALEX 1004	10	60	175	VALEX 1004-29-18
VALEX 3016	–	65	175	VALEX 3016-28-12
VALEX 3116	–	90	175	VALEX 3116-28-12
VALEX 5016	10	70	150	VALEX 5016-34-08
VALEX 5020	14	140	275	VALEX 5020-38-09
VALEX 5024	–	–	–	–
VALEX 5116	10	165	150	VALEX 5116-34-08
VALEX 5120	14	250	275	VALEX 5120-39-09
VALEX 5124	–	–	–	–
VALEX 9022	–	–	–	–

DIRECT FIXING

WITH PAD

FASTENING SERIES	LATERAL ADJUSTMENT [mm]	SIDE LOAD [KN]	TORQUE TIGHTENING [Nm]	FASTENING SYSTEM
VALEX 2012	5	30	75	VALEX 2012-31-13
VALEX 2016	10	–	175	VALEX 2016-32-13
VALEX 2020	15	110	320	VALEX 2020-35-15
VALEX 2024	15	160	550	VALEX 2024-42-13
VALEX 2124	15	290	550	VALEX 2124-42-13
VALEX 4018	–	–	–	–
VALEX 4021	–	–	–	–
VALEX 4023	–	–	–	–
VALEX 4025	–	–	–	–
VALEX 4028	–	95	550	VALEX 4028
VALEX 6024	–	–	–	–
VALEX 7020	10	90	320	VALEX 7020-40-15
VALEX F036	–	–	–	–
VALEX F046	–	–	–	–
VALEX F050	–	–	–	–
VALEX F060	–	–	–	–
VALEX D510	–	–	–	–
VALEX D614	–	–	–	–
VALEX D820	–	–	–	–

WITHOUT PAD

FASTENING SERIES	LATERAL ADJUSTMENT [mm]	SIDE LOAD [KN]	TORQUE TIGHTENING [Nm]	FASTENING SYSTEM
VALEX 2012	5	30	75	VALEX 2012-31-10
VALEX 2016	10	55	175	VALEX 2016-32-06
VALEX 2020	15	110	320	VALEX 2020-35-08
VALEX 2024	15	160	550	VALEX 2024-42-09
VALEX 2124	15	290	550	VALEX 2124-42-09
VALEX 4018	–	–	–	–
VALEX 4021	–	–	–	–
VALEX 4023	–	–	–	–
VALEX 4025	–	–	–	–
VALEX 4028	–	–	–	–
VALEX 6024	–	–	–	–
VALEX 7020	10	90	320	VALEX 7020-40-10
VALEX F036	–	80	–	VALEX F036
VALEX F046	–	70	320	VALEX F046
VALEX F050	–	–	–	–
VALEX F060	–	85	550	VALEX F060
VALEX D510	–	–	–	–
VALEX D614	–	–	–	–
VALEX D820	–	–	–	–