

Hydraulic Hose Reference: Parker, Gates, Alfagomma Cross-Reference by SAE / EN

cBallast · 2026 edition · Cross-reference guide

Standard families

SAE J517 (100R series) covers imperial working pressures. EN 853 / 856 / 857 covers metric equivalents used in European OEM. Tier-1 manufacturers publish against both.

SAE / EN cross-reference

SAE J517	EN standard	Reinforcement	Pressure class
100R1AT	EN 853 1SN	1 wire braid	Medium
100R2AT	EN 853 2SN	2 wire braids	High
100R7	EN 855 R7	1 textile braid	Medium, thermoplastic
100R8	EN 855 R8	2 textile braids	High, thermoplastic
100R12	EN 856 R12	4 spiral wires	Ultra-high
100R13	EN 856 R13	4 or 6 spiral wires	Ultra-high, large bore
100R15	EN 856 R15	6 spiral wires	Highest pressure
100R16	EN 857 2SC	2 wire braids compact	High, tight-routing
100R17	EN 857 1SC/2SC	1 or 2 wire braids	General compact

Working pressure — 1SN / 2SN / R12 / R15 (bar)

Bore	1SN	2SN	R12	R15
DN 6 (1/4)	225	400	420	-
DN 10 (3/8)	180	330	420	420
DN 13 (1/2)	160	275	350	420
DN 19 (3/4)	105	215	350	420
DN 25 (1)	88	165	280	420
DN 31 (1 1/4)	63	125	210	350
DN 38 (1 1/2)	50	90	180	350
DN 51 (2)	40	80	160	280

Manufacturer family cross- reference

SAE / EN	Parker	Gates	Alfagomma
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100R1AT / 1SN	421SN	MegaSys MXT-1	SN 1SN
100R2AT / 2SN	422SN	MegaSys MXT-2	SN 2SN
100R12	471TC	M4K	H4T
100R13	481	GlobalSpiral GS4K	H6T
100R15	77C	GlobalSpiral GS6K	H6T-XP
100R7 thermoplastic	528 / 828	PolyFlex 3200N	TE 7
100R8 thermoplastic	538 / 838	PolyFlex 3400N	TE 8
100R17 compact	ToughJacket 462	M3K-Compact	2TC

Selection checklist

Working pressure with 4:1 safety factor vs pump peak. Bore sized for velocity (2-4 m/s suction, 5-8 m/s pressure). Bend radius per datasheet. Temperature range for fluid + ambient. Fluid compatibility (mineral oil default, phosphate ester special). ISO 6945 abrasion rating for mobile equipment. MSHA fire-retardant for underground mining.

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