

HA® Quad Assembly OS+ Zinc-Tough

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The HA quad assembly OS+ Zinc-Tough is a fundamental component used in a wide range of lifting and rigging applications. It is typically used in three- and four-leg wire rope, chain and synthetic sling assemblies, acting as the connection point between the sling legs below and the lifting machine above. More specifically, having received DNV type approval, our HA quad assembly OS+ Zinc-Tough range is recognised and specified globally by operators, contractors and rigging shops for use in offshore rigging and DNV 2.7-1 container lifting sets. The HA quad assembly OS+ Zinc-Tough range is manufactured from grade 8 triple alloy steel which is supplemented by a specialist zinc thermal diffusion treatment - trademarked as Zinc-Tough - providing superior protection from hydrogen embrittlement and corrosion. This makes the HA quad assembly OS+ Zinc-Tough range an optimal solution for lifting and rigging in the harshest offshore environments.

DNV type approved: certified by DNV pursuant to Type Approval No. TAS00003J4 Rev. 1 and Type Approval No. TAS0000333 Rev. 3 in accordance with DNV-ST-E271, DNV-ST-E273, BSEN ISO 10855-2, EN1677-4, ASME B30.26 and API-2CCU-2017-08.

Additional standards: in addition to the standards covered by the DNV type approvals above, this product is designed and manufactured in accordance with AS3776:2015.

Product sizes: available in diameters from 22mm to 75mm and working load limits from 7.0 tonnes to 100.0 tonnes.

Temperature: operational temperature range of - 40°C to + 200°C without reduction in working load limit.

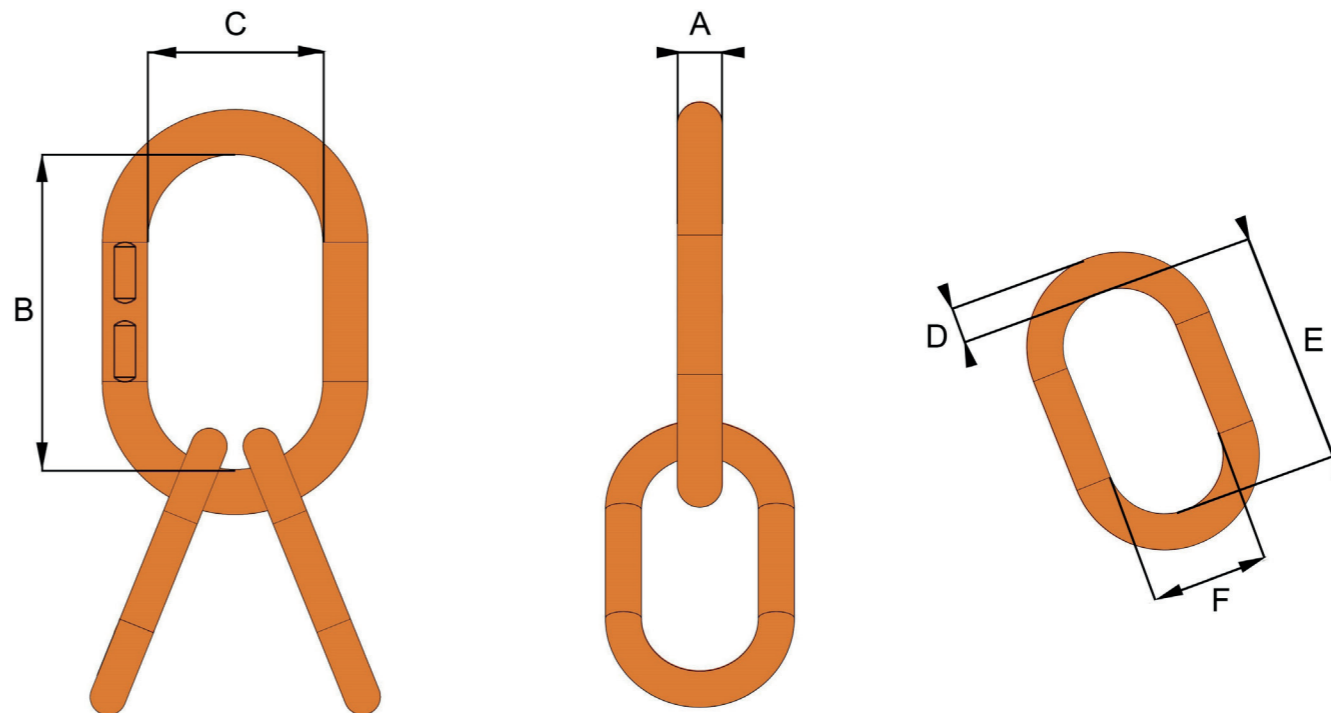
Material & hardness: manufactured from grade 8 triple alloy steel with Zinc-Tough treatment, and with a hardness range of 34 to 36 HRC.

Average impact energy (Charpy): 42 Joules minimum impact resistance at -40°C (up to 50mm diameter sizes).

Testing: individually proof load tested to 2.5 times working load limit, and 100% MPI tested.

Embossing: includes product description (i.e., "HA25QA OS+ ZT") and batch number.

Safety factor: 5 : 1.



Specifications

Part Code	Description	A mm	B mm	C mm	D mm	E mm	F mm	WLL t	MPF kN	MBL kN	Mass kg
350.230+ZT	HA23QA OS+ ZT	22.0	270.0	140.0	22.0	162.0	90.0	7.0	172	343	5.22
350.250+ZT	HA25QA OS+ ZT	25.5	270.0	140.0	22.0	162.0	90.0	9.3	229	456	6.05
350.260+ZT	HA26QA OS+ ZT	28.0	270.0	140.0	22.0	162.0	90.0	14.5	356	711	6.73
350.320+ZT	HA32QA OS+ ZT	32.0	270.0	140.0	28.0	200.0	110.0	19.0	466	932	10.92
350.360+ZT	HA36QA OS+ ZT	36.0	270.0	140.0	28.0	200.0	110.0	26.0	638	1275	12.35
350.400+ZT	HA40QA OS+ ZT	40.0	280.0	155.0	32.0	270.0	140.0	30.5	749	1496	18.50
350.450+ZT	HA45QA OS+ ZT	45.0	320.0	175.0	36.0	270.0	140.0	40.0	981	1962	25.09
350.500+ZT	HA50QA OS+ ZT	50.0	350.0	195.0	45.0	320.0	175.0	51.0	1251	2502	40.89
350.650+ZT	HA65QA OS+ ZT	65.0	410.0	220.0	50.0	350.0	195.0	75.0	1840	3679	66.10
350.750+ZT	HA75QA OS+ ZT	75.0	450.0	250.0	65.0	410.0	220.0	100.0	2453	4905	115.02