



**William Hackett**

The UK's leading provider of chain products and lifting systems solutions

[williamhackett.co.uk](http://williamhackett.co.uk) • [info@williamhackett.co.uk](mailto:info@williamhackett.co.uk)

## HA Quad Assemblies – Type Approval No. TAS000013Z

Certified to: DNV2.7-1, DNV2.7-3, EN12079-2, EN1677-4

The HA range of master links and quad assemblies is the most complete range of links available today, in diameters from 16mm up to 120mm and working load limits up to 150 tonnes. The links are manufactured from triple alloy steel in accordance with EN1677, they are individually proof load tested to 2.5 times working load limit in accordance with EN1677 and they are all supplied with charpy impact values of in excess of 42 Joules at -40°C. The links are suitable for use in a temperature range of -40°C up to 200°C without reduction in working load limit.

The HA range of links are widely used in lifting sets for offshore containers and they are type approved to DNV 2.7-1 under approval number TAS000013Z.

MPF = Manufacturing Proof Force = 2.5 x 9.81 x Working Load Limit (kN) (min.)

BF = Break Force = WLL x Factor of Safety

WLL = Working Load Limit (tonne) @ 45° to vertical

Factor of Safety = 5 : 1

Embossing - As per Description column and Batch Number

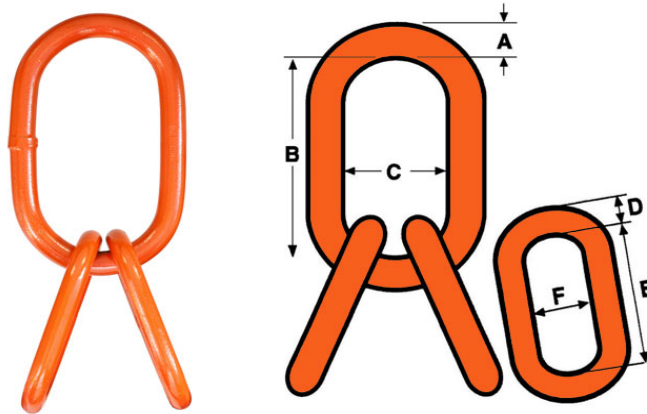
Manufactured in accordance with EN1677-4

Design air temperature -40° min. Average impact energy (charpy) 42 Joules up to 50mm diameter

DNV type approval No. TAS000013Z

Operational temperature range is -40° C to + 200°C

\*Certified on a batch basis to the requirements of DNV 2.7-1



## SPECIFICATIONS

Part Code	Description	A	B	C	D	E	F	WLL t	Mass Kg
		mm	mm	mm	mm	mm	mm		
350.160	HA16QA	16	150	75	14.5	125	60	4.1	1.3
350.220	HA22QA	22	162	90	20	140	70	8.83	3.6
350.230	HA23QA	22	270	140	16	150	75	5.8	3.8
350.250	HA25QA	25	270	140	20	140	70	8.83	5.3
350.260	HA26QA	28	270	140	20	140	70	14.5	5.9
350.280	HA28QA	28	200	110	22	140	70	14.5	5.5
350.320	HA32QA	32	270	140	25	190	102	17.1	9.7
350.360	HA36QA	36	270	140	28	190	100	23.0	11.9
350.400	HA40QA	40	280	155	32	270	140	28.1	18.6
350.450	HA45QA	45	320	175	36	270	140	38.3	25.4
350.500	HA50QA	50	350	195	40	260	130	45.0	32.3
350.600	HA60QA	60	410	220	50	350	195	65.0	63.9
350.700	HA70QA	70	450	250	60	410	220	85.0	102.6
350.900	HA90QA*	90	510	300	70	400	200	150.0	164.1



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William Hackett Lifting Products Ltd Oak Drive, Lionheart Enterprise Park, Alnwick, Northumberland, NE66 2EU. Tel : 01665 604200 Fax : 01665 604204

William Hackett Chain Products Ltd Maypole Fields, Cradley, Halesowen, West Midlands, B63 2QE. Tel : 01384 569431 Fax : 01384 639157

E-mail : [info@williamhackett.co.uk](mailto:info@williamhackett.co.uk) Web : [www.williamhackett.co.uk](http://www.williamhackett.co.uk)

