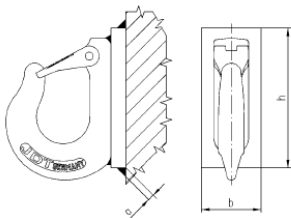


## Welding information for attachment points EAHK, TAPS, TAPS-E, TAPSK and THEIPA Point-S (TP-S)

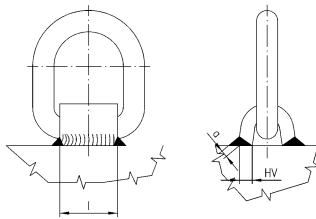
- The welding may only be carried out for welding additive and welding position by manual welders testing in accordance with EN ISO 9606-1 and who possess a valid welding test certificate.
- The material of the base plate / eyelet holder for EAHK, TAPSK, TAPS 1 to 15 and TAPS-E is S355J2 in accordance with DIN EN 10025. For TAPS 20 to 63 is the material of the base plate / eyelet holder 25CrMo4 (1.7218) in accordance with DIN EN 10083. With regard to TP-S, the swivel consists of 23 MnNiMoCr 5 4 (1.6758) in accordance with DIN17115 or equivalent.
  - o The counterpart material must be suitable for welding and must be able to constructively assume the load.
  - o Pre-warming and subsequent heat treatment of the welding seam is not required.
- Welding additives for the metal active gas welding process ISO 4063-135 (MAG)
  - o ISO 14341-A-G 38 2 M G4Si1 (description of the welding material)
  - o ISO 14341-A-G4Si1 (description of the wire electrode)
  - o **TP-S and TAPS 20 to 63 ONLY**: ISO 14341-A-G 46 2 M G4Si1 (description of the welding material)
  - o ISO 14341-A-G4Si1 (description of the wire electrode)
- o Welding additive for arc welding process ISO 4063-111
- o **In accordance with DIN EN ISO2560, the following requirements for the welding additive are to be fulfilled:**
  - Root pass: Index number for mechanical characteristics  $\geq 38$
  - Final pass: Index number for mechanical characteristics  $\geq 38$  ( $\geq 42$  for TP-S and TAPS 20 to 63)
  - Example:
    - o ISO 2560-A-E 38 2 1NiMo R (root pass and final pass)
    - o ISO 2560-A-E 38 2 1NiMo RR (root pass and final pass)
    - o **TP-S and TAPS 20 to 63 ONLY**: ISO 2560 A-E 42 0 1 NiMo R or RR (final pass)
- **Seam transitions are to be free of indents.**
- **Surfaces to be welded on must be metallically bright.**
- **The applicable rules and guidelines for the application are to be observed.**
- **The manufacturer (of the welding process) has to ensure the capability of the filler metal in use and the quality of the weld.**

### EAHK - welding seam



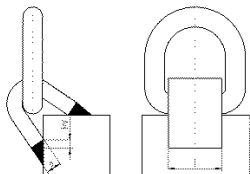
Description	b [mm]	h [mm]	Fillet weld, $a_{min}$ [mm]	Length [mm]	Volume [mm <sup>3</sup> ]
EAHK 6	40	90	5.0	260	3250
EAHK 8	50	115	5.0	330	4125
EAHK 10	60	140	8.0	400	12800
EAHK 13	70	175	8.0	490	15680
EAHK 16	80	210	8.0	580	18560

### TAPS - welding seam



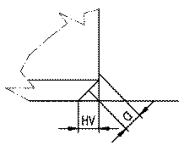
Description	L [mm]	Single-bevel butt (HV) weld [mm]	Fillet weld, $a_{min}$ [mm]	Length [mm]	Volume [mm <sup>3</sup> ]
TAPS 1	34	7	5.5	68	3672
TAPS 2	34	7	5.5	68	3672
TAPS 3	49	10	8.5	98	11956
TAPS 5	60	12	10.0	120	20400
TAPS 8	69	18	12.0	138	49956
TAPS 15	100	21	12.0	200	58800
TAPS 20	125	28	14.0	250	113250
TAPS 25	140	32	25.0	280	357560
TAPS 30	170	34	28.0	340	532440
TAPS 35	170	42	29.0	340	610640
TAPS 40	185	43	31.0	370	777000
TAPS 50	180	46	32.0	360	776880
TAPS 63	180	46	32.0	360	776880

### TAPSK – welding seam



Description	L [mm]	Single-bevel butt (HV) weld [mm]	Fillet weld, $a_{min}$ [mm]	Length [mm]	Volume [mm <sup>3</sup> ]
TAPSK 3	50	6.5	12.0	100	9800
TAPSK 5	60	8.0	15.0	120	18840
TAPSK 8	70	10.5	20.0	140	35700

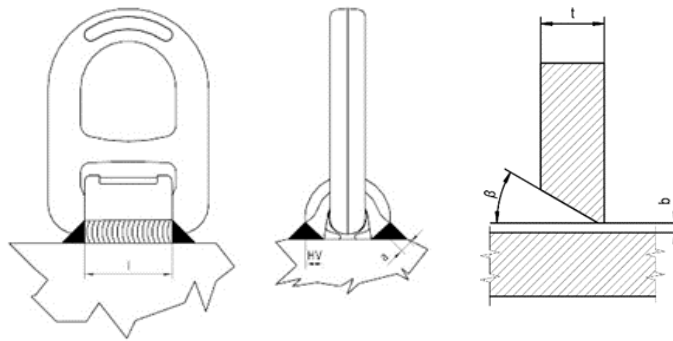
### „THEIPA“-Point-S (TP-S) – welding seam



Description	Single-bevel butt (HV) weld [mm]	Fillet weld, $a_{min}$ [mm]	Length [mm]	Volume [mm <sup>3</sup> ]
TP-S 2.5	5.5	5.0	168	6750
TP-S 4	7.0	6.0	184	11120
TP-S 6.7	8.5	7.0	224	19090
TP-S 10	10.0	9.0	260	34040
TP-S 17	12.0	10.0	321	55190
TP-S 28	12.0	12.0	405	87480

TAPS-E – welding seam

Description	Single-bevel butt (HV) weld [mm]	Fillet weld, $a_{min}$ . [mm]	Length [mm]	Volume [mm <sup>3</sup> ]	Angle ( $\beta$ )	Thickness (t) [mm]	Welding gap (b) [mm]
TAPS-E 1,4	8	6,0	70	4760	45°	8	2
TAPS-E 2,5	8	6,0	70	4760	45°	8	2
TAPS-E 4	10	8,0	100	11400	45°	10	2
TAPS-E 6,7	13	10,0	120	22140	45°	13	2
TAPS-E 10	17	12,0	140	40390	45°	17	2
TAPS-E 12,5	18	12,0	160	48960	45°	18	2,5
TAPS-E 16	19	12,0	180	58410	45°	19	3
TAPS-E 19	24	14,0	180	87120	45°	24	3
TAPS-E 26,5	28	16,0	280	181440	45°	28	3



Translation of the original welding information.  
 In case of doubts or misunderstanding, the German version of the document is decisive.