Reaction bar

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Instruction Supplement

Steel bar (Wave 40 1300 Nm)	
Steel bar (Wave 47 2600 Nm)	
Steel bar (Wave 60 4100 Nm)	
Steel bar (Wave 70 4100 Nm)	
Steel bar (Wave 72 8100 Nm)	





To reduce risk of injury, everyone using, installing, repairing, maintaining, changing accessories on, or working near this tool MUST read and understand these instructions before performing any such task.

WARNING

DO NOT DISCARD - GIVE TO USER



Product	Product Number	Reaction Bar	
RTP1300-HR20	8431 1013 00	4210 4757 90	
RTP2600-HR25	8431 1026 00	4210 4757 93	
RTP 4100C-HR25	8431 1026 00	4210 4757 85	
RTP4100-HR25	8431 1041 00	4210 4757 91	
RTP8100-GIR38	8431 1040 00	4210 4757 92	
ETP ST101-1300-25-F-HA	8433 2313 04	4210 4757 90	
ETP ST101-2400-25-F-HA	8433 2326 03	4210 4757 93	
ETP ST101-3400-25-F-HA	8433 2334 03	4210 4757 85	
ETP ST101-4000-25-F-HA2	8433 2340 03	4210 4757 85	
ETP ST101-4000-25-F-HA	8433 2340 03	4210 4757 91	
ETP ST101-5500-38-F-HA	8433 2325 03	4210 4757 92	
ETP ST101-8000-38-F-HA	8433 2325 03	4210 4757 92	
ETP SRB81-4000-25-HA	8433 2508 11	4210 4757 85	
ETP SRB81-4000-25-HA-D	8433 2508 01	4210 4757 85	
ETP SRB81-3400-25-HA	8433 2500 11	4210 4757 85	
ETP SRB81-3400-25-HA-D	8433 2500 01	4210 4757 85	
Nose extension 40-300-HR20	4210 0130 80	4210 4757 90	
Nose extension 47-300-HR25	4210 0260 80	4210 4757 93	
Nose extension 47-480-HR25	4210 0260 81	4210 4757 93	
Nose extension 60-300-HR25	4210 0410 80	4210 4757 85	
Nose extension 60-480-HR25	4210 0410 81	4210 4757 85	

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Shaping the reaction bar

Model	M (mm)	t (mm)	R _{min} (mm)	Nm	a°	
RTP1300	149	16	32	1300	56	
RTP2600	182	20	40	2600	54	
RTP4100C	196	20	40	4100	55	
RTP4100	196	20	40	4100	55	
RTP8100	243	25	50	8100	52	
ETP ST101-1300	149	16	32	1300	56	
ETP ST101-2600	182	20	40	2600	54	
ETP ST101-4000	196	20	40	4100	55	
ETP ST101-5800	180	25	50	8100	45	
ETP ST101-8000	243	25	50	8100	52	
ETP SRB81-4000-25-HA	196	20	40	4100	55	
ETP SRB81-4000-25-HA-D	196	20	40	4100	55	
ETP SRB81-3400-25-HA	196	20	40	4100	55	
ETP SRB81-3400-25-HA-D	196	20	40	4100	55	
ETP ST101-3400-25-F-HA	196	20	40	4100	55	
ETP ST101-4000-25-F-HA2	196	20	40	4100	55	
Nose extension 60-300-HR25	196	20	40	4100	55	
Nose extension 60-480-HR25	196	20	40	4100	55	
Nose extension 40-300-HR20	149	16	32	1300	56	
Nose extension 47-300-HR25	182	20	40	2600	54	
Nose extension 47-480-HR25	182	20	40	2600	54	

The torque reaction bar must be shaped to fit a suitable fixed support. In order to avoid overloading of the bearings for the tool drive and of the reaction bar, the desired point of contact (K) on the reaction bar must be within the safe area (S) according to figure 3. The reaction bar can either be cold bent or cut and welded so that it fits the application.

Defining the point of contact

1. Measure the distance (L) of the hexagonal socket that is going to be used.

Mark the points (A) and (B) on a piece of paper. Draw the line (C) through the points (A) and (B).

2. Read the dimension (M) for the relevant model in the table. Dimension (M) will ensure that the hole is not deformed when it is cold bended.

Draw line (M) parallel to line (C) at distance (M). Draw a line from point (A) at an angle of (α°) according to the table from line (C). Draw line (E) from point (B) at an angle of 90° towards line (C).

3. Draw two lines from point (B) at an angle of $\pm 15^{\circ}$ from line (E).

Mark the safe area (S) between the drawn lines.

Adapt the shape of the reaction bar so that the point of contact (K) is within the safe area (S). The minimum breaking force between socket and nut is obtained if (K) is on or close to line (E). Make sure that the desired point of contact (K) on the reaction bar is within the safe area (S).

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Cold bending

Model	t (mm)	W (mm)	R _{min} (mm)	R _d (mm)	R _p (mm)	P (tonne)
RTP1300	16	192	32	≥ 8	32	7
RTP2600	20	240	40	≥ 10	40	10
RTP4100C	25	300	50	≥12.5	50	23
RTP4100	20	240	40	≥ 10	40	15
RTP8100	25	300	50	≥12.5	50	23
ETP ST101-1300	16	192	32	≥ 8	32	7
ETP ST101-2600	20	240	40	≥ 10	40	10
ETP ST101-4000	20	240	40	≥ 10	40	15
ETP ST101-5800	25	300	50	≥12.5	50	23
ETP ST101-8000	25	300	50	≥12.5	50	23
ETP SRB81-4000-25-HA	25	300	50	≥ 12.5	50	23
ETP SRB81-4000-25-HA-D	25	300	50	≥12.5	50	23
ETP SRB81-3400-25-HA	25	300	50	≥12.5	50	23
ETP SRB81-3400-25-HA-D	25	300	50	≥12.5	50	23
ETP ST101-3400-25-F-HA	25	300	50	≥12.5	50	23
ETP ST101-4000-25-F-HA2	25	300	50	≥12.5	50	23
Nose extension 60-300-HR25	25	300	50	≥12.5	50	23
Nose extension 60-480-HR25	25	300	50	≥ 12.5	50	23

Model	t (mm)	W (mm)	R _{min} (mm)	R _d (mm)	R _p (mm)	P (tonne)
Nose extension 40-300-HR20	16	192	32	≥ 8	32	7
Nose extension 47-300-HR25	20	240	40	≥ 10	40	10
Nose extension 47-480-HR25	20	240	40	≥ 10	40	10

The reaction bar made of STRENX700 material is designed to be bent at room temperature. Do not expose the material to temperatures in excess of 580°C. The grooved hole must not be deformed during the bending operation.

The instructions below apply to bending of the reaction bar to 90°.

- 1. Measure the actual distance (X) from line (M) to point of contact (K).
- 2. Mark the line for end radius (R_e) on the same side as the pre-marked line at distance $(X) + (R_{min})$ value from the table. Mark line (R_s) for the starting radius at distance (R_{min}) value.
- 3. Use the recommended die width (W), punch radius (R_p) and support (R_d) in accordance with the table.
- 4. Place the reaction bar as per the figure and use the recommended bending force (P) in accordance with the table.

For more information about the bending process of the STRENX700 material, go to www.ssab.com.









Welding

Welding is recommended if the point of contact is within area (S_w). For more information about the STRENX700 material, go to www.ssab.com.



Using the reaction bar

MARNING Reaction bar



To avoid injuries like crushing or shearing:

- ► Check the position of the reverse lever. Accidental start in an unexpected direction may be harmful due to the reaction bar.
- ► Never put your hand on or close to the reaction bar while the product is being used.

Apply the reaction bar, opposite the direction of the drive of the product, before starting the product.



In order for the torque reaction bar to be as light as possible it is recommended that the section outside the bend be configured as shown in the figure below.



Maintenance

If the reaction bar is used daily, do a visual inspection every day of the sensitive areas, for example near the center hole and at the thinnest parts of the reaction bar.

MARNING Always replace cracked or damaged reaction bars.



Original instructions





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