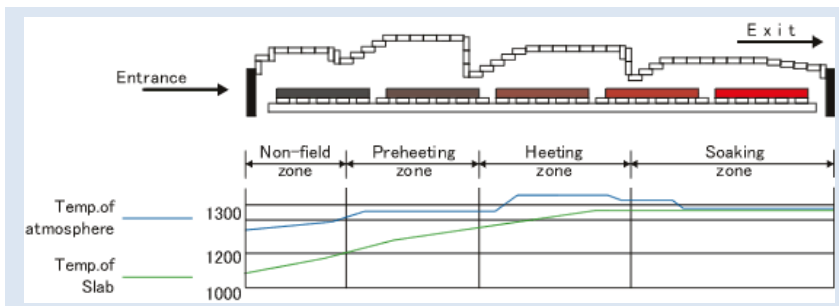


Skid Buttons (Riders) for Walking Beam & Pusher Type Reheating Furnaces (RHF)

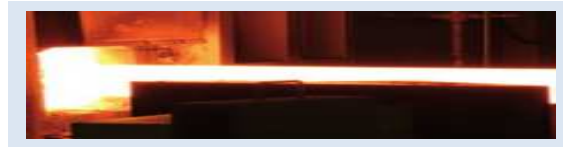


Skid Buttons are parts which reduce metal contact with cold part of longitudinal pipes and their wearing, working under the temperatures of 1100-1200°C and high mechanical loads for metallurgical pusher-type furnaces and walking beam furnaces.

AcmeCast® offers cast and precision machined skid buttons, pads or riders along with associated insulation water cooling pipe fittings. Consumable Skid buttons (riders) -weldable as well as close tolerance fit; are custom made to furnace designs of clients in various Iron-Chromium-Nickel (Fe-Cr-Ni), Iron-Nickel-Chromium (Fe-Ni-Cr), Chromium-Nickel (Cr-Ni), and Cobalt Base-heat, wear, abrasion and high temperature corrosion resistant alloys that are subjected to service temperatures up to 1300°C under severe thermal cycling conditions of rapid heating and cooling.

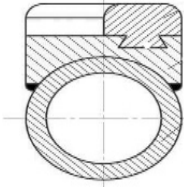
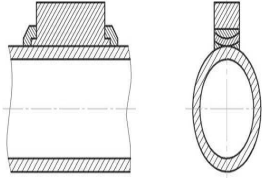
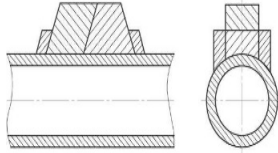
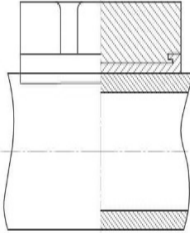
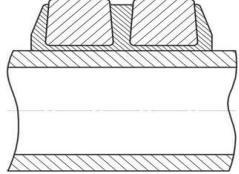


Benefits of Using Replaceable/ Weldable Skid-Buttons, Pads, & Riders



- Substantial energy savings in walking beam furnace using skid pipe insulation
- Uniform metal heating characteristics prior to rolling due to lower temperature loss along section of heated slabs and work pieces
- Lower fuel consumption
- Improved furnace performance and throughput with less skid marks
- Decrease of metal loss (scaling) in pusher-type furnaces
- Ensure capability for sheet rolling in negative allowance field and increasing flatness of finished rolled products with energy savings in drives due to lower stresses in hot rolling
- Lower wastage and metal cut-off piece consumption due to uniform deformation when rolling
- Improved life of skids ranging 3 to 8 years depending upon selected skid alloy and hot worked alloy
- Better useful than commonly used 25Cr-20Ni alloy
- Enhanced resistance of skid button/ skid rider alloy to cracking due to rapid heating and cooling

Skid Buttons / Skid Riders: Possible Configurations

<p>Rider base is welded to water-cooled pipe. Working part (dove tailed), which directly contacts work piece surface and has a zigzagging shape which is fixed to the base with the help of dovetail fastening. In such case zigzags should look so that their prints on work piece surface do not coincide. This type of rider design allows to eliminate black spots and significantly increase distribution efficiency of heating temperature along the whole entire length of the work piece</p>	
<p>This configuration consists of heat-resistant insert and support, fixed on water-cooled pipe. The support mates with end surface and side surfaces of heat resistant insert. To simplify mounting of rider and increasing its reliability, mating end surfaces of support and heat resistant insert are made cylindrical, and side surfaces mated as male and female</p>	
<p>This variant of heating furnace rider consists of support with heat resistant trapezoidal-shaped insert fixed on water-cooled pipe. To facilitate easy rider mounting, the insert has a split design and its parts are connected with each other along the plane, which is parallel to one of trapezoidal lateral side</p>	
<p>This type of skid button consists of support with heat resistant trapezoidal-shaped insert fixed on water-cooled beam. Upper and lower base of insert are made with ratio 0.7-0.8. Height of insert is 0.6-0.7 of bigger base and distance from base to beam is 0.4-0.5 of insert height. It enhances reliability and service life of the rider. This rider includes support and heat resistant trapezoidal-shaped housing. The housing has symmetrical slots on lateral sides, which make variable-profile along the longitudinal axis</p>	
<p>This form of rider also uses support and heat resistant trapezoidal-shaped housing. To increase reliability and service life of the rider, the support is divided into sections. This allows to uniformly distribute heat along the length of work piece and equally distribute load on inserts without impeding heat transfer gradient to reach equilibrium temperature throughout the entire cross-sectional thickness of heating metal/slab</p>	

Applications

Plate Mill
 Steckel Mill
 Sectional Mill
 Wire Rod Mill
 Seamless Tube/Pipe Mill
 Hot Strip Mill (HSM)

Steel, Stainless Steel, High & Super Alloy-
 Heat, Wear, Abrasion, Pressure & Corrosion Resistant
 Castings, Spares, Replacement Parts, Custom-Made Components
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Alloys

ASTM A 297 Grade HK 25Cr-20Ni
 ACME Modified- HK 40, HK 40 Nb/Cb, HK-REM (Rare Earth Modified)
 ASTM A 297 Grade HP
 ACME Modified HP-45, HP-45-Nb/Cb, HP-W, HP-Co-W
 ACME 30-45W, 30-45W-Co, 30-45W-Al, 30-45- REM (Rare Earth Modified)

DIN 1.4840 GX 15CrNi 25-20
 DIN 1.4848 GX 40CrNiSi 25-20
 DIN 1.4849 GX 40NiCrSiNb 38-19
 DIN 1.4852 GX 40NiCrSiNb 24-24
 DIN 1.4855 GX 40NiCrSiNb 35-26
 DIN 1.4857 GX 40NiCrSi 35-26
 DIN 1.4859 GX 10NiCrSiNb 32-20
 DIN 1.4865 GX 40NiCrSi 38-19

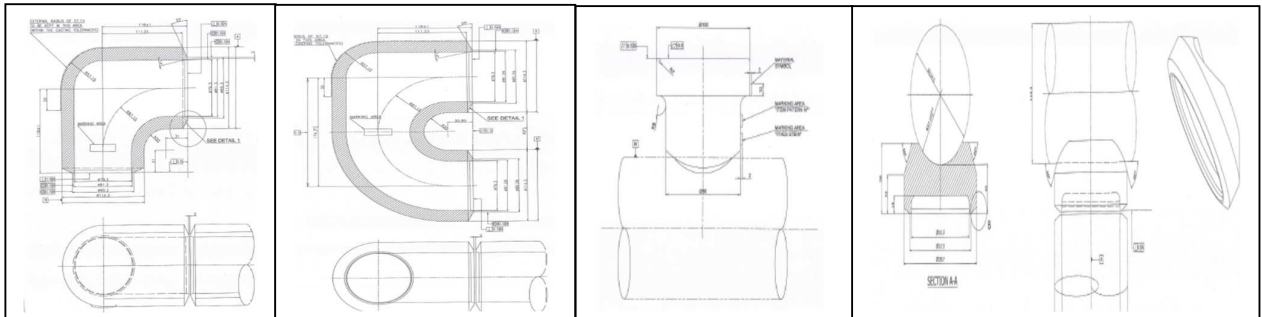
DIN 2.4778 G-CoCr 28
 DIN 2.4779 G-CoCr28 Nb
 DIN 2.4879 G NiCr 28 W

ASTM A 560 50Cr-50Ni, 60Cr-40Ni, 50Cr-50Ni-Nb/Cb

ACME Co50 50Co-28Cr-21Fe-0.20C-1.2Si-0.8Mn
 ACME Co48 48Co-28Cr-20Fe-0.30C-1.0Si-0.8Mn-2Nb/Cb +Zr (optional)
 ACME CrNiNb 28Cr-20Ni-20Nb-0.50C-1.0Si-0.8Mn-4W

Auxiliary fittings cast and precision machined to match radial profiles of Insulation Cooling Pipes

-90° Bend, 180° U-Bend, with bevelled machined ends to suit welding with cooling pipes, Skid Posts with profile to match cooling pipe



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