

## Double Metal Liner

Material for shell is forged steel ASTM1045. Normalizing hardness degree is 160BHN (HB180-200) , percentage elongation 17% ( $\delta > 17\%$ ) , tensile strength not less than 85000PSI ( $\sigma_b > 610\text{Mpa}$ ) , Flexural Strength not less than 60000PSI ( $\sigma_b > 450\text{MPa}$ ) and shell with HP.

Sleeve material is high chrome centrifugal, which is chrome containing 26-28%, its thickness 0.25~0.35 inch quenching hardness HRC59-67.

Its Chemical Composition Table is as following

Element	C	Cr	Si	Mn	Mo	V	S、P
Content	2.8%-3.1%	26%-28%	0.6%-0.9%	0.5%-1%	0.5%-0.8%	0.1%-0.2%	<0.05%

Some special chemical composition will be adopted to use on the sleeve according to the requirement of the client or special working conditions

under normal working conditions Hour of Service Life of each liner reach more than 1000 hours



## High Frequency, Carburization & quenching Liner

Material ASTM1020 seamless steel tube or forged steel. The bore will be carburized first and then High Frequency quenching . The thickness of Carburized layer is more than 1.5mm and hardness of the bore is HRC58-62 under normal working conditions Hour of Service Life of each liner reach more than 300 hours



## Chrome-plated Liner

Material is ASTM1045 or ASTM5140 seamless steel tube or forged steel. Thickness of chrome plated is 0.15~0.2mm and hardness of its bore is HRC58-60 under normal working conditions Hour of Service Life of each liner reach more than 300 hours



JINAN HONGYANG PETROLEUM MACHINERY CO., LTD.

Add: Xunyucun North, Dongjia Town, Licheng District, Jinan City, Shandong China

[www.pumppartssupplier.com](http://www.pumppartssupplier.com)

Tel:+86-531-82687338

[hyoiking@aliyun.com](mailto:hyoiking@aliyun.com)

Fax: +86-531-82687336

