



Slurry pumping solutions

MINING & MINERAL PROCESS | COAL WASHING | POWER | CHEMICAL | METALLURGY

SPL

HEAVY DUTY SLURRY PUMP



TYPICAL APPLICATIONS

Usage of versatile wear-resistant metal allows SPL slurry pumps could be used in different industries such as mill discharge and tailings in mining process, ash removal and FGD in power plants, coal washing in coal preparations, to reduce operation cost, minimize maintenance and down time.

Ash Removal

Featured with high efficiency and high head, hard metal wet parts, plus the usage of oil lubrication bearing assembly, ensures the pump could running continuously without stop in ash removal in power plants.

Coal Washing

High head performance could meet the needs of feeding process to filter press, allows the SPL pumps are widely used in coal washing applications.



Building Material

The usage of versatile wear/corrosion resistance materials allow the pump could be used in this field to pump corrosive and sticky fluids.

Filter Feeding

Passage of wet part were designed to have the feature that head drops quickly when flow rate increases, by the rule of power consumption: the power is directly proportional to the product of flow rate and head, and the curves are nearly reverse 45 degree, this means, the power won't change much when flow rate or head change, this characteristic especially applies to filter-press feeding applications in coal preparation plants, where the flow rate need to be substantial under lower head, and minor flow rate at high head.



Mineral Processing

The rigid structure design and usage of wear-resistance hard metals, combined with low running speed, allows SPL slurry pumps could be used in long distance tailing transportation.

FGD

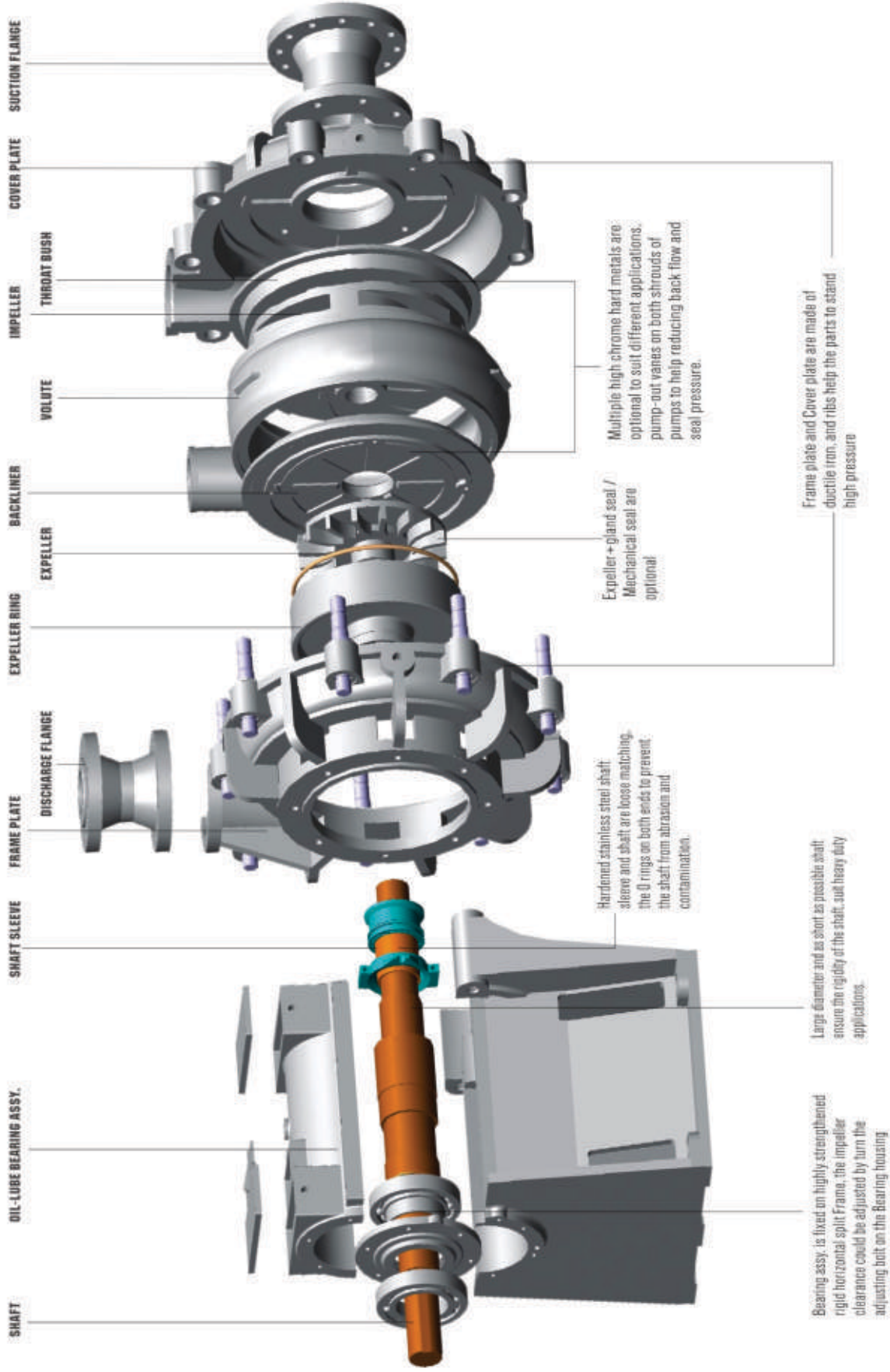
Special materials are adopted to resist the abrasion and corrosion from the gas of powergeneration.

Metallurgy

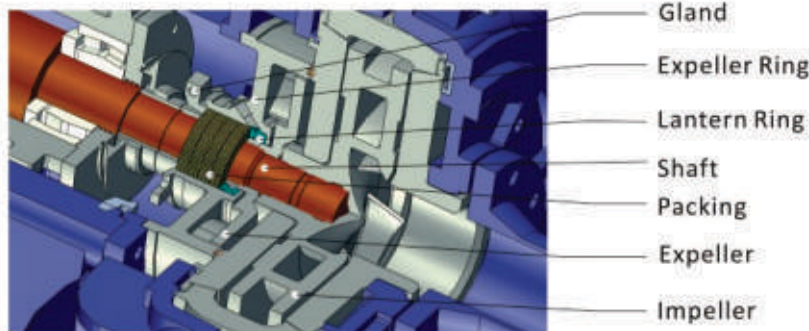
Specially designed oil lubrication and cooling system ensures the bearings to run at low temperature while delivering high temperature media in steel slag transportation.



STRUCTURE AND FEATURES



SEAL OPTIONS



Expeller +Gland Seal- The expeller generates a reverse centrifugal force to prevent the leakage, two rings of packing are fixed beside the expeller to strength the seal. suit the applications which the suction pressure is too high that expellers are not capable of preventing leakage completely. for single stage pump, seal water pressure should be 0.2~0.3MPa; for multi-stage pump, the seal water pressure should be discharge pressure+0.1MPa.

Mechanical Seal- Suitable for applications where no extra substance is allowed to mix with the fluid being pumped, such as chemical or food industry.

MATERIAL OPTIONS

code	Material #	Hardness HRC	Performance	Applications
AT01	KmTBCr8	≥55	Abrasion-resistant performance is about 10% less than AT05.	Mud & slag applications
AT03	KmTBNi4Cr2	≥56	Abrasion-resistant performance is about 20% less than AT05.	Neutral water-sand slurry and applications with lower impact load.
AT05	KmTBCr26	≥56	Ranks second only to AT07 in abrasion-resistant performance; fair corrosion-resistant performance.	High impact load abrasion condition; PH rate ranging from 5 to 12.
AT07	KmTBCr15Mo3	≥59	Best abrasion-resistant performance; corrosion-resistant performance is inferior to AT05.	High impact load abrasion condition.
AT11	KmTBCrMnMo	38-42	Mild corrosion-resistant; lower hardness; drilling and tapping operations are applicable.	Fine particles with light abrasion.
AT33		≥35	Abrasion-resistant performance is close to AT03; fair corrosion-resistant performance.	Oxide slurry with PH rate no less than 1, like phosphogypsum in phosphate fertilizer plant, nitric acid, sulphoic acid and phosphoric acid, etc.
AT49		≥43	Fair abrasion-resistant performance, close to AT03; fair corrosion-resistant performance in media with lower PH rate.	Corrosion conditions with low PH rate, especially for flue gas and FGD devices for media of PH ≥4; general suitable for lower acid condition.
AT12		≥62	Higher abrasion-resistant performance than AT05; fair corrosion-resistant performance; suitable for media with PH rate is 6 ~ 14, where AT05 is not suitable.	High abrasive slurry with fine particles.
AT61		63-68	Optimized abrasion-resistant performance than AT12.	High abrasive slurry with fine particles.