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## **Series NZJA Rubber-lined Slurry Pump**



**Product Introduction**

 **JIANGXI NAIPU MINING MACHINERY AND NEW MATERIALS CO., LTD**  
[HTTP://WWW.NAIPU.COM.CN](http://www.naipu.com.cn)



## Series NZJA Rubber-lined Slurry Pump

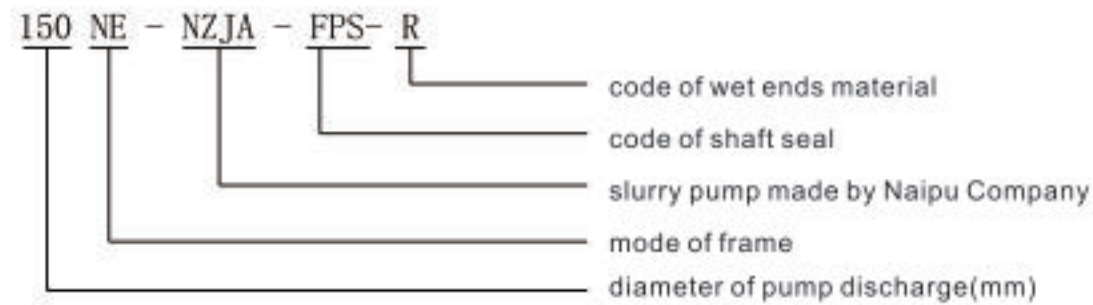
### I. Use and Features:

Series NZJA Slurry Pumps are suitable for transferring slurries with high erosion and in high density in industrial sectors as of metallurgy, mining, coal, power generation and building materials. These pumps can be applied multi-staged in series.

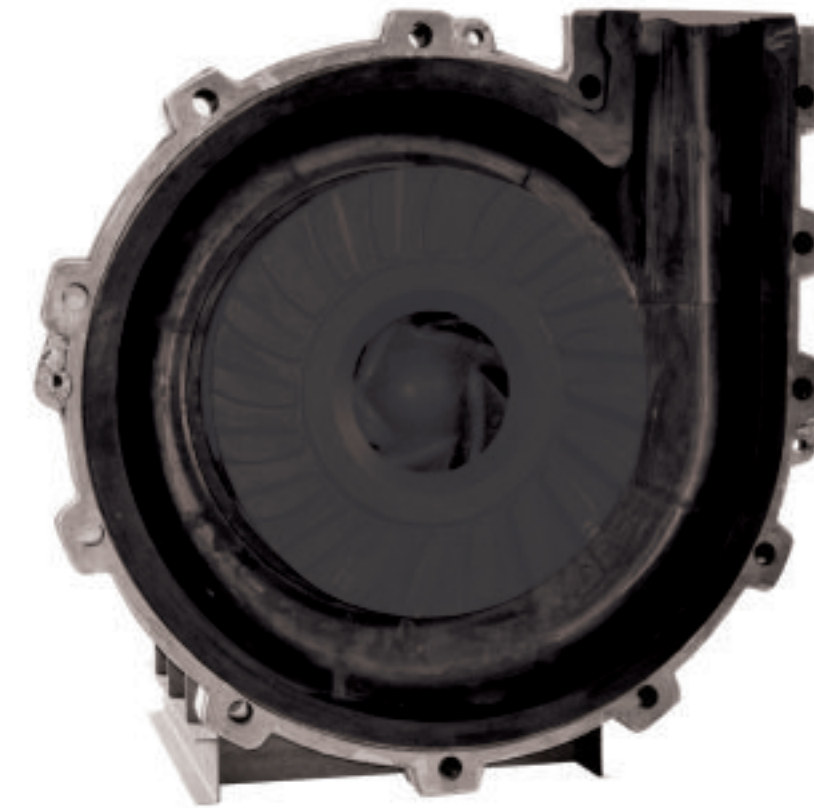
Series NZJA Slurry Pumps are those of impeller overhung and horizontal ones, whose shafts can be sealed by gland seals or centrifugal seals. The positions of a pump discharge outlet can be positioned at an interval of 45° according to different requirements, so eight different angles can be applied by rotation in installation.

The wet ends( volute liners, liner inserts, impellers) for series NZJA Slurry Pumps are replaceable wear-resistant internal rubber linings with the features of long service life, high efficiency and energy saving. Naipu Company can also provide you with wetted parts made of wear-resistant metal according to your requirements, and these metal wet ends and rubber ones have a fair interchangeability.

### II. Designation



Code of wet ends material		
Code	Meaning	Note
M	Metal wet ends	
R	Rubber wet ends	Default configuration, no mark needed
MR	Metal impeller + Rubber wetted parts	
MMR	Metal impeller + Metal liner + Rubber volute liner + Rubber back liner	
Code of shaft seal		
Code	Meaning	Note
PS	Gland seal	
FPS	Full flow gland seal	Default configuration, no mark needed
LPS	Low flow gland seal	
ES	Expeller seal	
HS	High pressure expeller seal	
MS	Mechanical seal	
SMS	Single Face Mechanical seal	
DMS	Double Face Mechanical seal	



450 NZJA Slurry Pump and Rubber Wet Ends Made by Naipu Company



450 NZJA Slurry Pump and Rubber Wet Ends Made by Naipu Company



### III. Structural Image

Series NZJA Slurry Pumps are suitable for severe slurry conditions with coarse particles and high competency.

1. Wet ends (volute liners, liner inserts, impellers) are made of three types of material:

Highly wear resistant rubber researched and developed independently by Naipu Company

High chrome alloy

Polyurethane

All can be separately used in different types of process or can be mixed up in operation to make wet ends have high efficiency and long service life

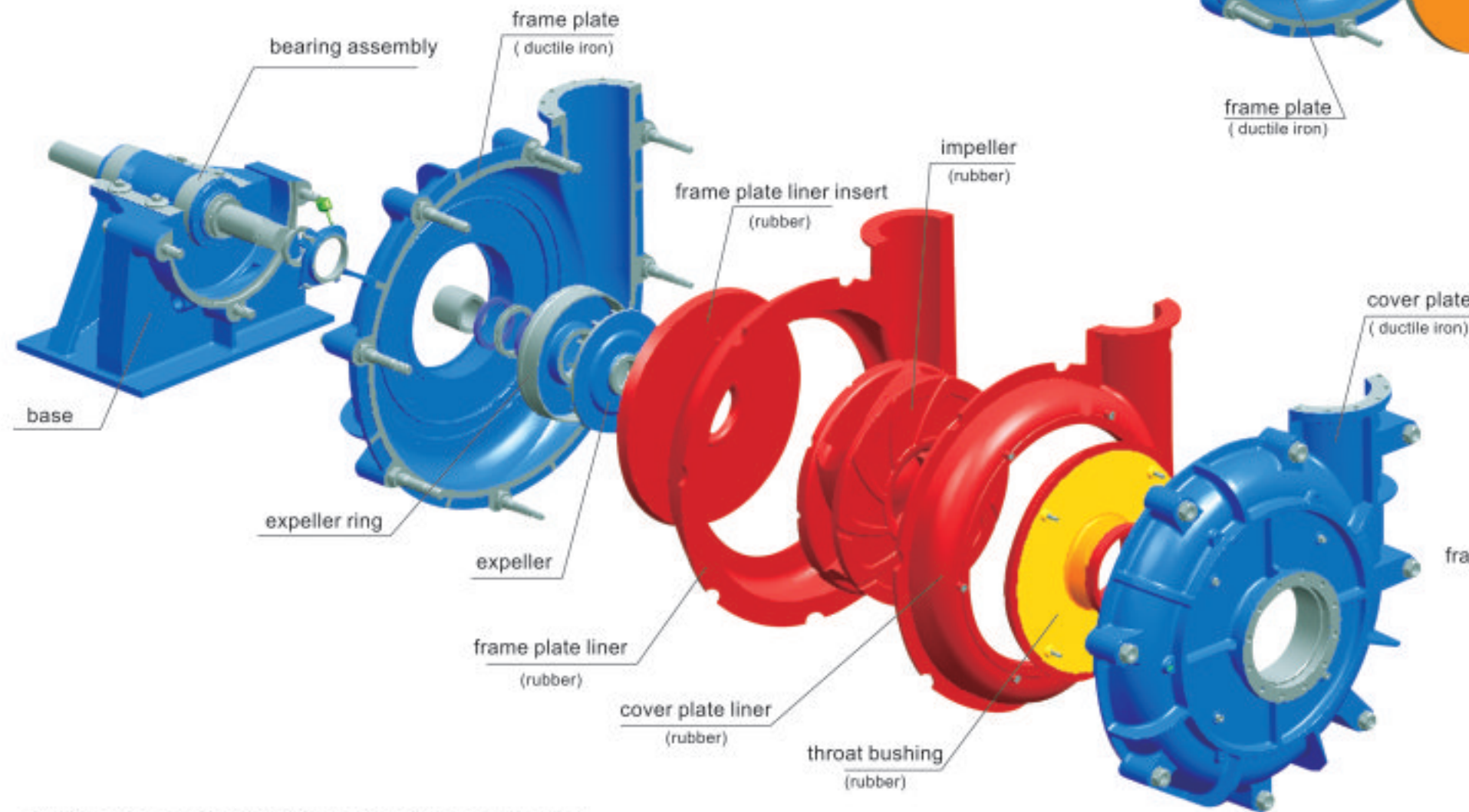
2. Structure of Shaft Seals

Gland seal with packing

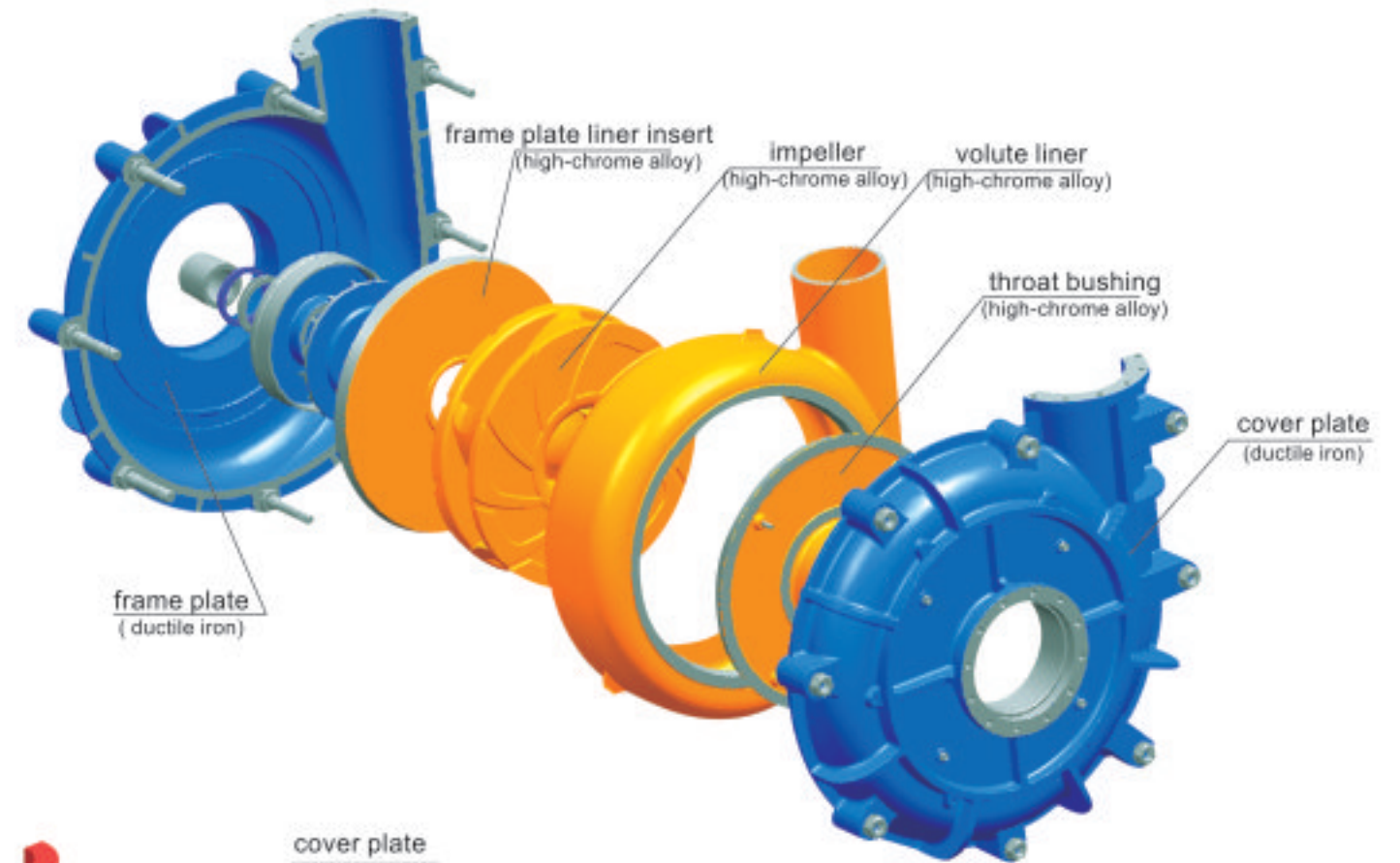
Centrifugal seal with metal expeller ring

Centrifugal seal with rubber expeller ring

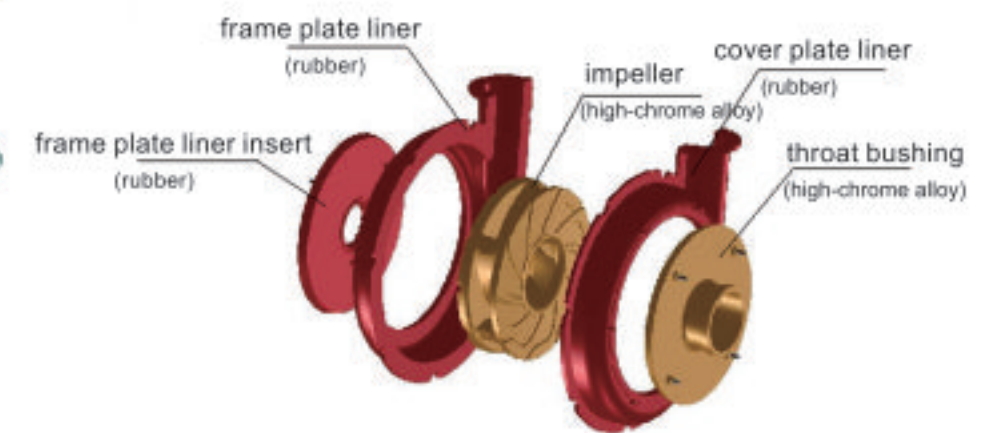
Mechanical seal



structure image of an NZJA Slurry Pump( rubber wet ends)



structure image of an NZJA slurry pump (high-chrome alloy wet ends)



structure image of an NZJA Slurry Pump (interchangeable high-chrome alloy wear parts and rubber ones)



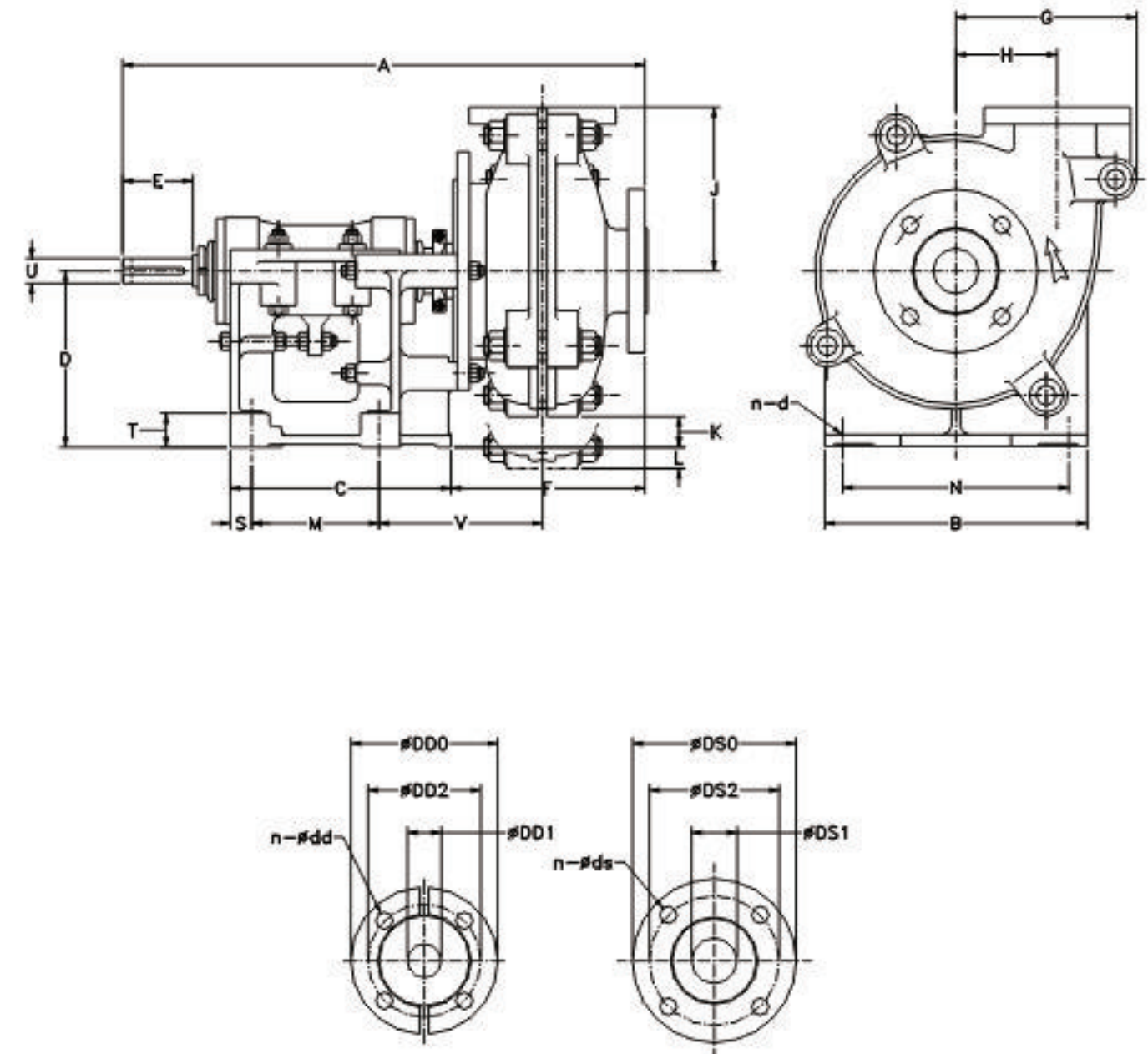
#### IV. Parameters of Design Duty Points of Series NZJA Slurry Pumps

Design Duty Points refer to the rated duty point designated at the beginning of design of a slurry pump which is usually the highest efficiency point. Working range is increased by adjusting the speed of an NZJA slurry pump practically.

MODEL	FLOWRATE Q(m <sup>3</sup> /h)	HEAD H(m)	SPEED n(r/min)	CLEAR WATER EFFICIENCY(%)	NPSHr(m)
25NZJA-M	28	43	3300	54.8	4.80
25NZJA-R	22	21	2400	49.3	5.20
40NZJA-M	48	27	2400	47.0	6.10
40NZJA-R	38	20	1950	51.5	3.40
50NZJA-M	110	43	2400	63.5	5.40
50NZJA-R	60	21	1700	62.0	2.80
75NZJA-M	180	34	2000	67.5	6.40
75NZJA-R	100	15	1300	67.0	3.60
100NZJA M	310	33	1300	70.0	6.20
100NZJA-R	250	22	1050	71.0	4.50
150NZJA-M	720	49	1100	71.8	7.60
150NZJA-R	520	25	750	71.0	7.20
200NZJA-M	1100	42	750	71.0	8.40
200NZJA-R	740	24	550	75.6	6.00
250NZJA-M	1430	35	650	80.0	6.40
250NZJA-R	1160	22	500	81.0	5.00
300NZJA-M	2150	42	525	77.0	8.50
300NZJA-R	1900	21	375	78.0	5.20
350NZJA-M	2800	32	425	82.0	7.10
350NZJA-R	2240	22	350	82.0	5.10
450NZJA-M	4600	31	325	84.8	7.70
450NZJA-R	3600	22	275	81.6	4.80
550NZJA-M	5400	38	325	86.0	5.00
650NZJA-M	7600	36	275	87.0	4.50
750NZJA-M	9000	40	240	89.0	4.00

#### V. Outside Dimension and Drive Arrangement

(1) Outside Dimension of a Slurry Pump





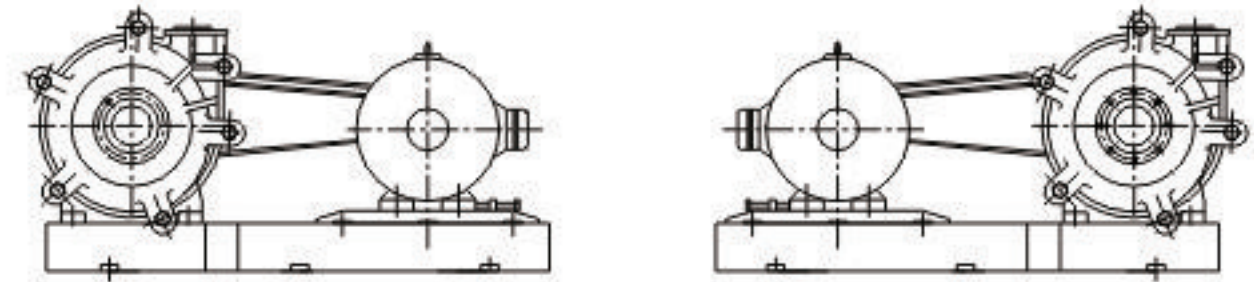
## A Data Table of Outside Dimension of Series NZJA Slurry Pumps

unit:mm

Model	A	B	C	D	U	E	F	G	H	J	K	L	M	N
25NB-NZJA	583	295	248	197	28	79	206	181	98	171	46	-	143	254
40NB-NZJA	592	295	248	197	28	79	217	205	114	184	33	-	143	254
50NC-NZJA	768	406	311	254	42	121	281	238	138	210	71	-	175	356
75NC-NZJA	843	406	311	254	42	121	354	292	149	262	24	-	175	356
75ND-NZJA	943	492	364	330	65	164	353	292	149	262	100	-	213	432
100ND-NZJA	1021	492	364	330	65	164	421	406	229	338	11	-	213	432
100NE-NZJA	1178	622	448	457	80	222	433	406	229	338	138	-	257	546
150NE-NZJA	1302	622	448	457	80	222	557	551	318	460	-	62	257	546
150NR-NZJA	1360	680	590	350	85	215	-	511	318	460	-	170	490	560
200NS-NZJA	1748	1150	780	650	120	280	692	673	419	635	27	-	620	900
250NS-NZJA	1816	1150	780	650	120	280	762	755	464	674	-	65	620	900
300NS-NZJA	1873	1150	780	650	120	280	812	937	629	832	-	224	620	900
350NT-NZJA	2320	1460	1050	900	150	350	953	1048	660	889	-	84	860	1200
450NT-NZJA	2475	1460	1050	900	150	350	1100	1420	940	1230	-	420	860	1200
550NU-NZJA	3210	1440	1375	900	240	475	1334	1675	1100	1210	-	-	1185	1200
650NU-NZJA	3343	1440	1375	900	240	475	1467	1853	1200	1554	-	-	1185	1200

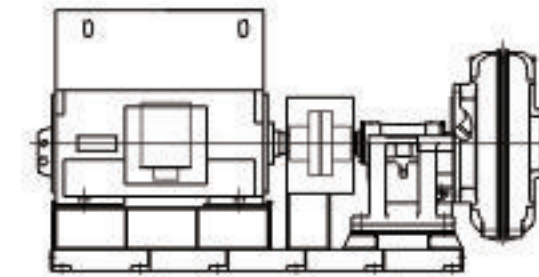
Model	V	T	S	n-d	Suction Flange				Discharge Flange				Pump Weight	
					DS0	DS1	DS2	n-ds	DD0	DD1	DD2	n-dd	Metal	Rubber
25NB-NZJA	181	38	24	4-14	152	38	114	4-16	165	25	127	4-16	91	77
40NB-NZJA	184	38	24	4-14	184	51	146	4-19	165	38	127	4-19	104	118
50NC-NZJA	233	48	32	4-19	216	76	178	4-19	184	51	146	4-19	191	154
75NC-NZJA	270	48	32	4-19	279	102	235	4-22	229	76	191	4-22	263	236
75ND-NZJA	279	64	38	4-22	279	102	235	4-22	229	76	191	4-22	363	290
100ND-NZJA	318	64	38	4-22	337	152	292	4-22	279	102	235	4-22	626	454
100NE-NZJA	351	76	54	4-29	337	152	292	4-22	279	102	235	4-22	728	635
150NE-NZJA	402	76	54	4-29	406	203	356	8-22	368	152	324	8-21	1473	982
150NR-NZJA	312	70	50	4-28	406	203	356	8-22	368	152	324	8-21	1836	1202
200NS-NZJA	439	125	80	4-48	502	254	445	8-29	432	203	375	8-29	3750	3130
250NS-NZJA	461	125	80	4-48	527	305	470	8-25	527	254	470	12-25	4318	3357
300NS-NZJA	486	125	80	4-48	585	356	521	12-25	552	305	495	12-25	6409	4672
350NT-NZJA	597	150	95	4-79	705	406	641	8-35	673	356	610	12-29	10000	-
450NT-NZJA	615	150	95	4-79	900	508	800	12-42	900	460	800	12-42	18864	15921
550NU-NZJA	767	150	95	8-67	1025	650	950	12-39	1025	550	900	12-45	-	21000
650NU-NZJA	804	150	95	8-67	1179	750	1092	12-45	1050	650	950	12-49	-	28250

(2) Drive Arrangement

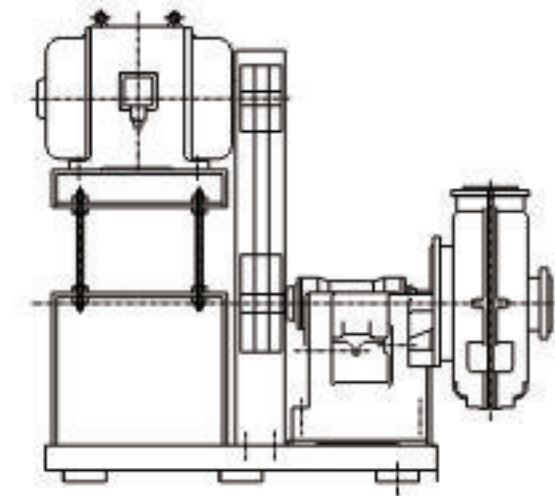


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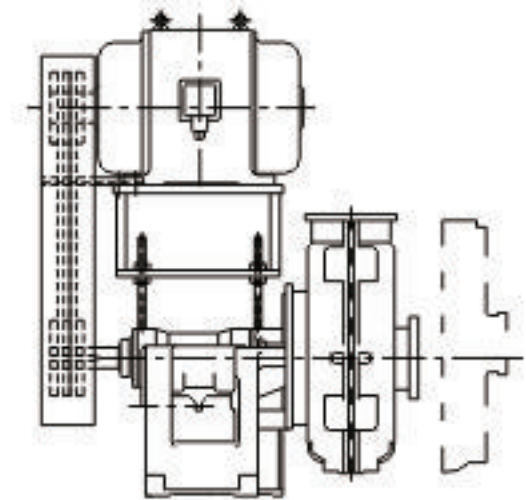
CL



DC



ZV



CV

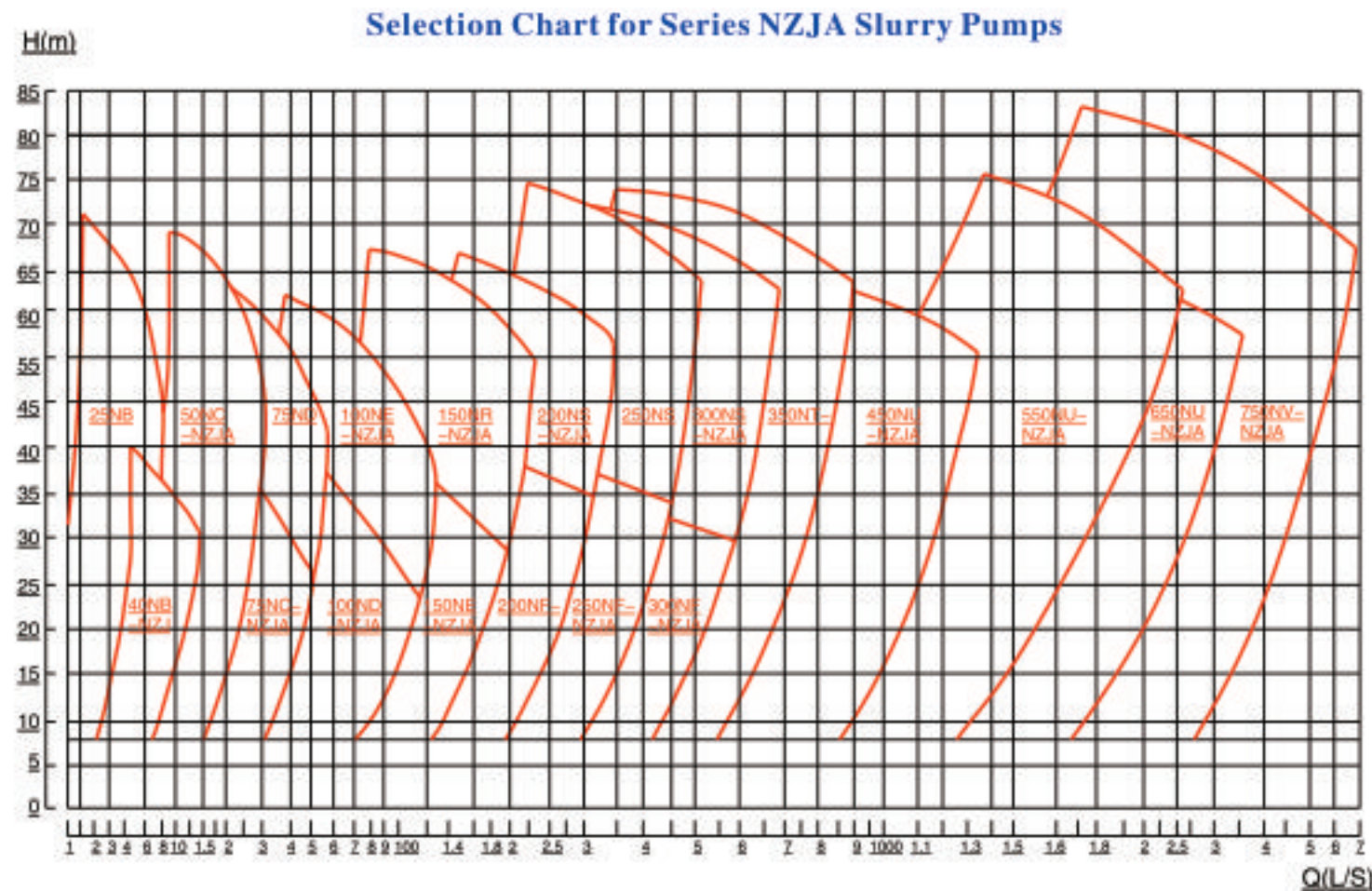


## VI. Introduction of Model Selection of Series NZJA Slurry Pumps

(1) When the model selection is conducted for Series NZJA slurry pumps, the clear water performance curve table for pumps shall be referred to, and the coefficient for the flow range selected is as follows:

1. For slurry of high density and strong abrasiveness, the coefficient of flow range will be 40-80%
2. For slurry of medium density and medium abrasiveness, the coefficient of flow range will be 40-100%
3. For slurry of low density and low abrasiveness, the coefficient of flow range will be 40-120%

## (2) Quick Selection Chart



- Note: 1. These are performance curves for clear water  
2. The chart just serves as a reference for preliminary type selection

## VII. Instructions for Placing an Order

1. Naipu Company supplies complete sets of device as well as a variety of wetted parts:

Series NZJA slurry pumps have two kinds of wetted parts, which are the high-chrome alloy one and the wear resistant rubber one. There are four types of configurations, which are M, R, MR and MMR. The user shall select his configuration when placing an order. A complete set of device consists of the pump, the electric motor, the hydraulic coupler and the variable frequency inverter. A user can order the electric motor, the hydraulic coupler and the variable frequency inverter according to his requirements, or he can order the same from other associated suppliers as well.

2. Supply of spare parts

We supply our customers with complete sets of device as well as a variety of wear resistant wetted parts, and site service is available with service quality guaranteed. Wetted parts for slurry pumps manufactured by Naipu Company are shown as follows:



## VIII. A Typical Case of Slurry Pump



450NZJA Slurry Pump at Dashan Concentrator of Dexing Copper Mine