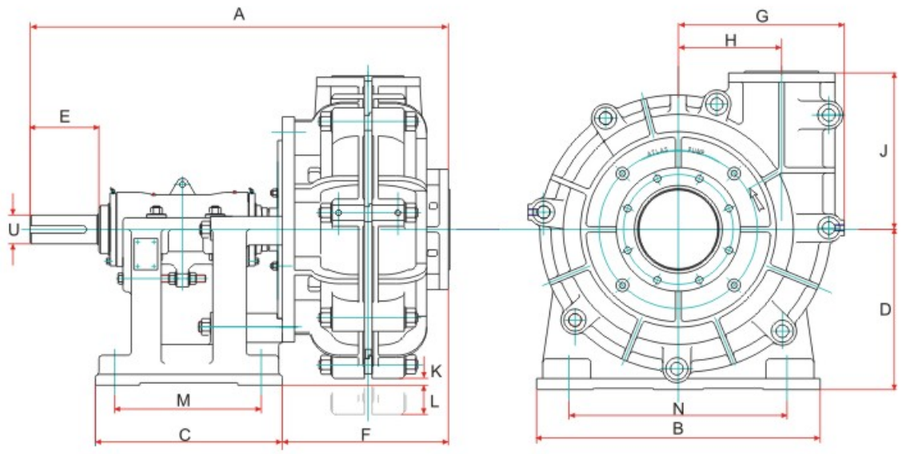
OUTLINE DIMENSIONS



Atlas WX(R) / WXA(R) pump outline dimensions

Pump model	A	B	C	D	U	E	F	G	H	J	K	L	M	N	Weight(kg)	
															Metal	Rubber
1.5×1B-WX	583	295	248	197	28	79	206	181	98	171	46	—	143	254	91	77
2×1.5B-WX	592	295	248	197	28	79	217	205	114	184	33	—	143	254	104	118
3×2C-WX	768	406	311	254	42	121	281	238	138	210	71	—	175	356	191	154
4×3C-WX	843	406	311	254	42	121	354	292	149	262	24	—	175	356	263	236
4×3D-WX	943	492	364	330	65	164	353	292	149	262	100	—	213	432	363	290
6×4D-WX	1021	492	364	330	65	164	421	406	229	338	11	—	213	432	626	454
6×4E-WX	1178	622	448	457	80	222	433	406	229	338	138	—	257	546	728	635
8×6E-WX	1302	622	448	457	80	222	557	551	318	460	—	62	257	546	1473	982
8×6R-WX	1360	680	590	350	85	215	554	551	318	460	—	170	490	560	1655	1164
10×8ST-WX	1748	1150	780	650	120	280	692	673	419	635	27	—	620	900	3750	3130
12×10ST-WX	1816	1150	780	650	120	280	762	755	464	674	—	65	620	900	4318	3357
14×12ST-WX	1873	1150	780	650	120	280	812	937	629	832	—	224	620	900	6409	4672
16×14TU-WX	2320	1460	1050	900	150	350	953	1048	660	889	—	84	860	1200	10000	7867
20x18TU-WX	2467	1460	1050	900	150	350	1100	1414	940	1230	—	417	860	1200	17840	12750

All dimensions are in millimeter (mm)

TEEC

ATLAS PUMP INDUX®

Slurry pumping solutions

WX(R)
WXA(R)

Heavy Duty Slurry Pump

Mining | Power Plant | Coal | Metallurgy | Chemical

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Tel: 86-311-85832212

Fax: 86-311-87777076

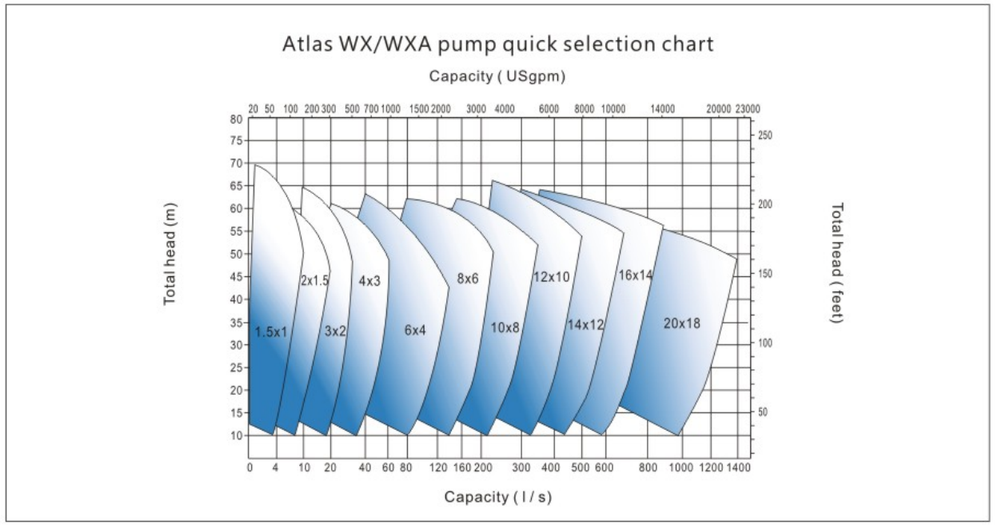
Email: marketing@atlas-pump.com

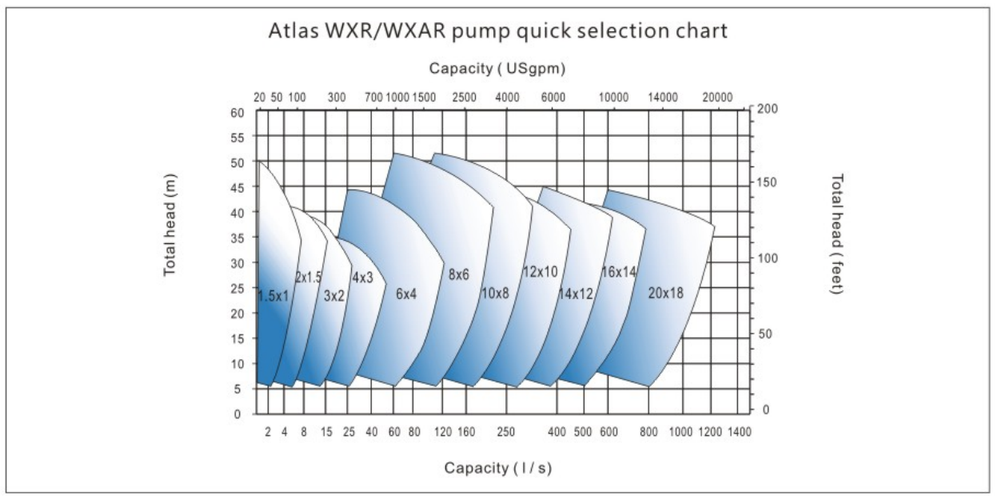
WX(R)/ WXA(R) HEAVY DUTY SLURRY PUMPS

WX（R) & WXA(R) hard metal/rubber heavy duty slurry pumps are designed for the most difficult pumping applications for highly abrasive , high density or erosive slurries.
Extra thick sections at wear point and perfect Impeller structure ensures satisfactory performance with long life, and needs minimum maintenance requirements.
Rubber lined pump expand applications to chemical products handling, several different rubber options are available to meet different application needs.
Especially fit in aggressive applications like mill discharge, tailing transportation.
WXA(R) pumps are improved version of WX(R) pumps, by adopting adjustable Wear plate seated in Throatbush, the clearance between Impeller and Throatbush could be adjusted by pushing the wear plate towards the Impeller without stopping the pump and re-aligning pully or couplings, to extend wear parts life by 50% while reducing power consumption by 10%.

- Pump Range : 1" ~ 18"
- Capacity to : 5400m^3/h
- Head to : 68m

QUICK SELECTION CHART





TYPICAL APPLICATIONS

Usage of versatile wear-resistant and corrosion-resistant materials allows WX(R)/ WXA(R) series slurry pumps to service in various industries, such as mining mill discharge, delivery of tailings, ash removal in power plant, FGD and coal washing in coal plant, etc., resulting in low operating cost, as well as minimized maintenance and down time.

Mineral processing

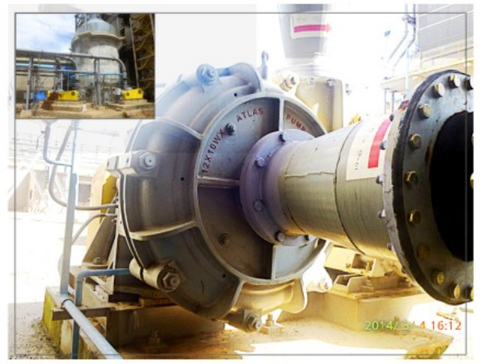
Rigid structural design and usage of hard wear-resistant material and rubber, together with low running speed, allows WX(R) / WXA(R) Seriesslurry pumps for wide application in this area, especially suitable for mill discharge in coarse grinding of mineral and tailing delivery.

Chemical industry

Usage of versatile wear-resistant and corrosion-resistant metal and rubber, together with mechanical seal, allows the WX(R) / WXA(R) Series slurry pumps' wide applications in this area.

Flue Gas Desulphurization (FGD)

Usage of wear-resistant and corrosion-resistant metal and rubber, which are specially developed for the corrosive slurries containing chlorideion, allows the wide applications of the WX(R)/ WXA(R) Series slurry pumps in this area.



Coal washing

In the process of coal washing, WX(R) / WXA(R) Series slurry pumps are widely used in delivery of high abrasive heavy media and concentrated underflow media.

Metallurgy

Usage of versatile wear-resistant materials and abrasive structural design, along with special cooling system, ensures the bearings to run at low temperature while delivering high temperature media, allowing its wide applications in delivery of steel slag and clinker.

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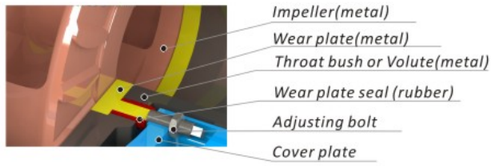
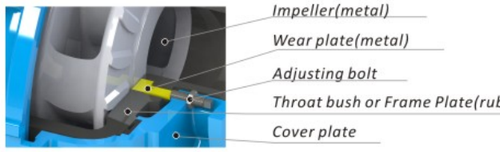
STRUCTURES & FEATURES

Pump clearance adjusting structure of WXA(R)

WXA(metal liners and metal impeller)



WXAR (elastomer liners and metal impeller)

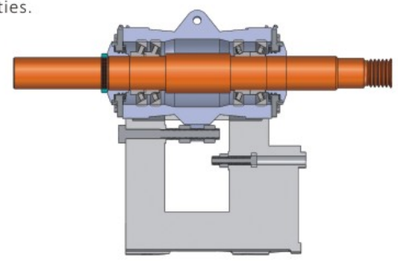


Different as traditional adjustment to impeller, ATLAS developed new design of adjustable wear plate attached to suction liner to ensure initial clearance. Keep impeller still; only adjust central wear plate of suction liner to maintain clearance which can be easily operated during pump running.

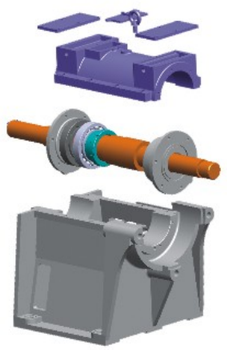
Compare to conventional structure, the service life of wetted parts can be extended by 50% and the power consumption can be reduced by 10%

Bearing Assembly Options

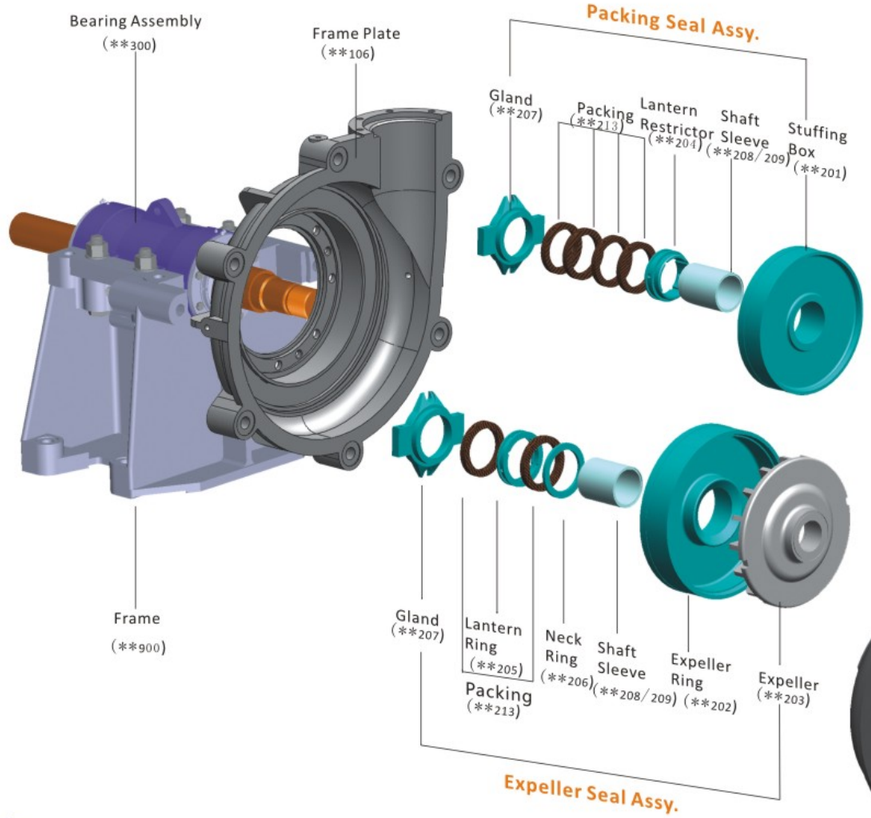
Oil & grease lubrication structures are available for different duties.

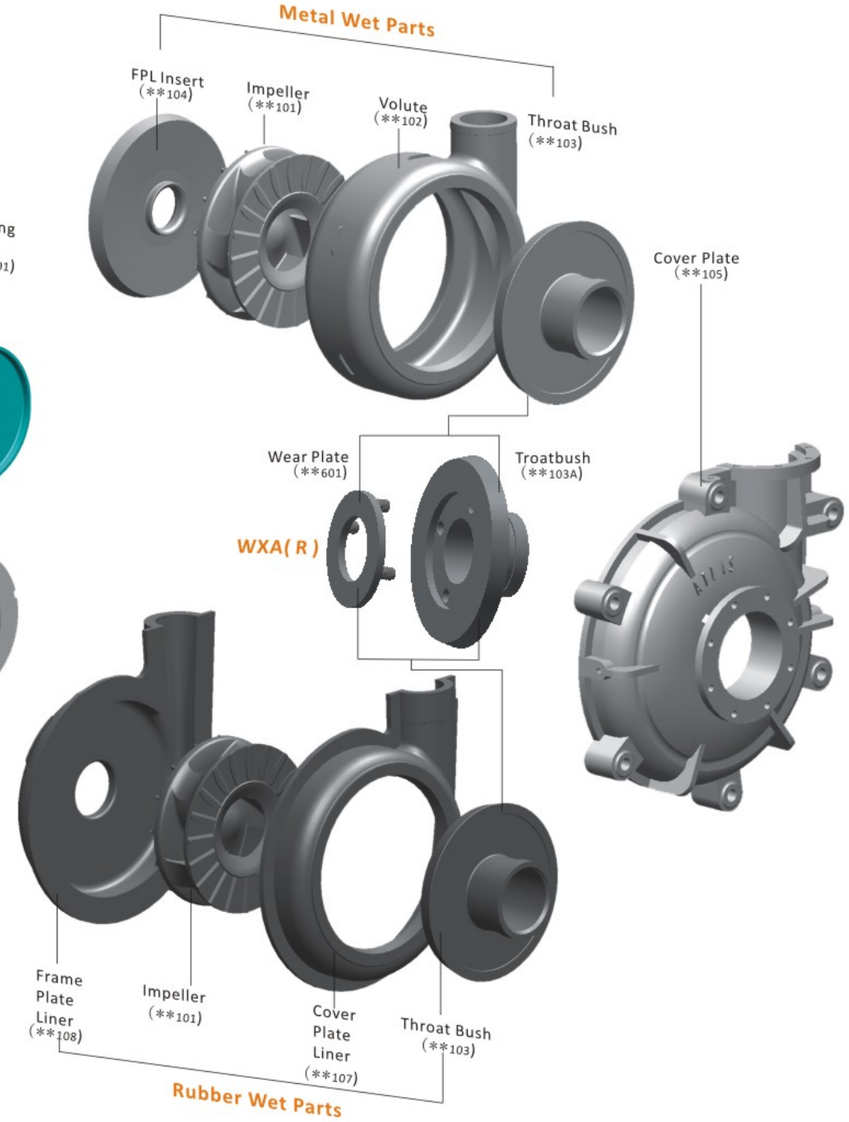


Grease lubrication Bearing Assembly



Oil lubrication Bearing Assembly





Pump Features

Single stage, single suction, overhang shaft, centrifugal, double casing horizontal pump

Material:

Casing-Made of ductile Iron, ribs help casing to stand high pressure.

Wet Ends-Impellers, liners, volutes are made of high-chrome alloy or rubber or polyurethane, to resist wear, corrosion, erosion or impact, parts made of metal or rubber are interchangeable.

Shaft sleeve: Ceramic, tungsten carbide or other hard material are optional for coating, to increase wear resistance.

Bearing Assembly- Grease Lubrication and oil lubrication are optional depend on the usage.

Seal options-Packing Seal, expeller(centrifugal or dynamic) seal and mechanical seal are optional to fi different application

Part design:

Impeller-Multiple impeller types for diverse applications to get best performance: High efficiency, High efficiency with lower NPSHr, large particle, enhanced performance, flow reducer, Recessed eyes are available.

Liners- different types to match different impellers.

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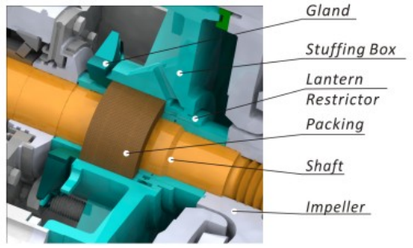
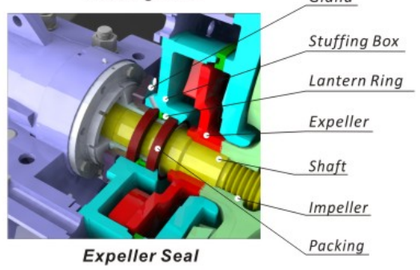
SHAFT SEALS



Packing Seal



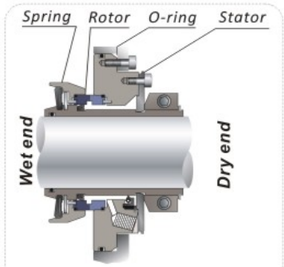
Expeller Seal

For more details, please consult Atlas.

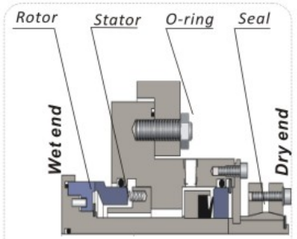
Packing seal – Most popular type of seal. Clean water at a certain pressure being injected into the packing through the lantern restrictor, preventing leakage from casing. Simple structure, easy maintenance and low cost.

Expeller seal – The expeller generate a reverse centrifugal force to prevent the leakage. It can be used for single-stage pump or the first pump of multiple pumps in series when the positive pressure at suction side is larger than that at discharge side by no more than 10%. No gland water is needed.

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



Flushless mechanical seal



Water flush mechanical seal

Water flush seals are preferential unless field condition are inapplicable

CLEAR WATER PERFORMANCE

WX(R)/WXA(R) Clear Water Performance

Model	Max.Motor Power Kw	Material		Clear Water Performance					
				Capacity		Head	Pump speed	Eff.	NPSH
		Liner	Impeller	(m^3/hr)	(l/s)	H(m)	n(r/min)	η%	(m)
1.5x1B-WX(A)	15	M	M	12.6~28.8	3.5~8	6~68	1200~3800	40	2~4
		RU	RU	10.8~25.2	3~7	7~52	1400~3400	35	2~4
2x1.5B-WX(A)	15	M	M	32.4~72	9~20	6~58	1200~3200	45	3.5~8
		RU	RU	25.2~54	7~15	5.5~41	1000~2600	50	2.5~5
3×2C-WX(A)	30	M	M	39.6~86.4	11~24	12~64	1300~2700	55	4~6
		RU	RU	36~75.6	10~21	13~39	1300~2100	55	2~4
4×3C-WX(A)	30	M	M	86.4~198	24~55	9~52	1000~2200	71	4~6
4×3D-WX(A)	60								
4×3C-WX(A)	30	RU	RU	79.2~180	22~50	5~34.5	800~1800	59	3~5
4×3D-WX(A)	60								
6×4D-WX(A)	60	M	M	162~360	45~100	12~56	800~1550	65	5~8
6×4E-WX(A)	120								
6×4D-WX(A)	60	RU	RU	144~324	40~90	12~45	800~1350	65	3~5
6×4E-WX(A)	120								
8×6E-WX(A)	120	M	M	360~828	100~230	10~61	500~1140	72	2~9
8×6R-WX(A)	300								
8×6E-WX(A)	120	RU	RU	32~720	90~200	7~49	400~1000	65	5~10
8×6R-WX(A)	300								
10×8ST-WX(A)	560	M	M	612~1368	170~380	11~61	400~850	71	4~10
		RU	RU	540~1188	150~330	12~50	400~750	75	4~12
12×10ST-WX(A)	560	M	M	936~1980	260~550	7~68	300~800	82	6
		RU	RU	720~1620	200~450	7~45	300~650	80	2.5~7.5
14×12ST-WX(A)	560	M	M	1260~2772	350~770	13~63	300~600	77	3~10
		RU	RU	1152~2520	320~700	13~44	300~500	79	3~8
16×14TU-WX(A)	1200	M	M	1368~3060	350~800	11~63	250~550	79	4~10
		RU	RU	1260~2880	380~850	12~42.5	250~450	80	4~8
20×18TU-WX(A)	1200	M	M	2520~5400	700~1500	13~57	200~400	85	5~10
		RU	RU	1800~4680	500~1300	13~44	200~350	80	2~7

1.Recommend 50%Q'≤Q≤110%Q',(Q'≈Capacity at Max. eff. point) 2. M means metal , R means rubber

MATERIAL OPTIONS

Hard Metals

Material Code	Material Description	Performance Comparison				Applicable Parts		Applications
		Hardness HRC	Anti-Brush	PH Value 3 7 12	Max. Particle Size	Impeller	Liner	
AT01	Medium-Cr Martensitic White Iron	≥55	0.9			●	●	Mud & slag applications.
AT03	Ni-Martensitic White Iron	≥56	0.8			●	●	Neutral water-sand slurry or lower impact load.
AT05	27% Cr White Iron	≥56	1.0 (Datum)			●	●	High impact load abrasion PH rate ranging from 5 to 12.
AT07	Chromium/Molybdenum	≥58	1.2			●	●	High impact load abrasion.
AT08	27% Cr White Iron	≥56	1.0			●	●	Same as AT05, suit for thick wall parts.
AT11	Low Alloy With Iron	38-42	0.7			●	●	Fine particles ,light abrasion.
AT12	30% Cr Hyper eutectic Chromium White Iron	≥62	1.5			●		Highly abrasive ,fine particles.
AT33	33% Cr Erosions & Corrosion Resistence White Iron	≥43	0.7			●	●	Acidic slurries like Phosphoric.
AT49	28% Cr Low Carbon White Iron	≥45	0.7			●	●	FGD process in power plant.
AT530	Super high-Cr White Iron	63-68	1.8			●		Severe abrasive ,fine particles.

Rubbers

Material Code	Polymer	Applications
RT08	Natural Rubber	Black medium hardness rubber mainly used in impellers for fine slurry applications where cutting and chunking resistant is required. Due to its hardness, it is less prone to deformation during running. Formulated with excellent protection against the environment for maximum storage stability.
RT26	Natural Rubber	A soft black natural rubber with good protection against the environment for storage stability and ageing properties. High resilience and good physical properties, suitable for fine slurry applications.
RT55	Natural Rubber	Black medium hardness rubber with excellent resistance against the environment for maximum storage stability. General purpose grade for fine to medium slurry applications. Good erosion resistance and physical properties.
RT66	Natural Rubber	Black medium hardness rubber used mainly in impellers, suitable for application where chunking and cutting resistant is required. Specially formulated to give excellent erosion resistance for medium to coarse aggregates. Well protected against weather and ageing for maximum storage stability.
ST01	EPDM	Medium hardness rubber for seal application.
ST02	EPDM	Soft to medium hardness rubber for seal application.
ST12	NBR	Black synthetic rubber with moderate wear resistance. Suitable for applications where organic oils and fats resistance is required. Formulated with good protection against the environment for good storage properties.
ST21	Butyl	Black synthetic rubber with moderate wear resistance, suitable for applications where weak acid or alkali are presence. Suitable for working temperature exceeding 100℃.
ST31	Hypalon	Black synthetic rubber, for weather, heat and chemical resistance applications. Moderate wear properties, however excellent performance for strong acid applications.
ST42	Polychloroprene	Black synthetic rubber for impellers and liners with good resistance against mineral oils. Excellent performance in oil and gas application.
ST51	Fluoroelastomer	Black synthetic rubber with exceptional resistance to chemicals and oil at high temperature.

Polyurathane

Material Code	Hardness Shore A	Tensile strength MPa	Elongation at break %	Performance	Applicable conditions
PC01	80	36	440	Excellent wear and corrosion properties. Excellent tensile and tear properties.	- Abrasion resistance, adhesion to metal, tear resistance, oxidation and weather resistance, in animal and vegetable oils, aliphatic fuels, mineral oil and silicone oil. -Suit for Slurries PH range 1~14. -Suitable for fine to medium particle erosive slurry applications. Max particle size could be 10mm. -Max. tip speed could be 30m/sec.
PC02	90	45	490	Excellent wear and corrosion properties. Excellent tensile and tear properties.	
PC03	95	41	490	Exceptional wear properties, better than PC01 and PC02. Excellent tensile and tear properties.	
PC04	60	46	600	Excellent wear and corrosion properties. Excellent Tensile properties with medium tear.	

DRIVE ARRANGMENTS

CV

ZV(Z)

CR(Z)/CL(Z)

DC(Z)