

2013年 产品目录

2013 YAOU-NOW PRODUCTS



如皋市雅鸥进出口贸易有限公司

RUGAO YAOU IMPORT AND EXPORT TRADE CO., LTD

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2013 PRODUCT CATALOG



如皋市雅鸥进出口贸易有限公司
RUGAO YAOU IMPORT AND EXPORT TRADE CO.,LTD



★ 1.Casing Elevators/Spiders



Slip type casing elevators/spiders are tools for handling casing from 4 1/2-14 inch O.D. and with capacities of 350 and 500 tons.

Casing size (in)	4 1/2,5,5 1/2,6 5/8,7,7 5/8,7 3/4,8 5/8,8 3/4,9 5/8,9 3/4,9 7/8, 10 3/4,10 7/8,11 3/4,11 7/8,13 3/8,13 1/2,13 5/8,13 3/4,14.
Max .load tongs (kN)	350(3150) 500(4500)





★ 2.QD450/315 PNEUMATIC CASING SPIDER

QD pneumatic casing elevator/spider is applicable for casing of 60~340mm (23/8~133/8 in). It features labor saving safety and pneumatic operation, and it is a kind of ideal tool for casing operation. It is designed and manufactured according to API Spec 8A "Specification for Drilling and Production Hoisting Equipment"



Model			QD450 (API500)	QD315 (API350)	QD135 (API150)
Applicable range		mm	113-340	113-340	60-139.7
		in	4 ¹ / ₂ -13 ³ / ₈	4 ¹ / ₂ -13 ³ / ₈	2 ³ / ₈ -5 ¹ / ₂
Rated load		kN	4500	3150	1350 (3 ¹ / ₂) 900 (5 ¹ / ₂)
		US ton	500	350	150 (3 ¹ / ₂) 100 (5 ¹ / ₂)
Pressure		MPa	0.5-0.9	0.5-0.9	0.5-0.9
		psi	72-130	72-130	72-130
Size	elevator	mm	1390*1290*915	1335*1040*806	990*645*550
		in	55*51*36	52.5*41*31.7	39*25.4*21.6
	spider	mm	1390*1290*970	1335*1040*872	810*730*560
		in	55*51*38	52.5*41*34.2	31.9*28.7*22
Weight		kg	9900	7550	1430
		lb	21820	16640	3152





★ 3. JSQWG Casing Air Slips

Model JSQWG casing air slips is an ideal too for handling casing by combining with hydraulic casing power tong. Technical Specifications



Model	JSQWG-205 (520)	JSQWG-275
Suited for which rotary tables	ZP205、ZP520	ZP275
Working pressure (psi)	87—130	
Effective clamping length (in)	16 ¹ / ₂	
Rated load (kN)	2250	3000
Max. bore diameter (in)	Aug-85	12 ¹ / ₄
Clamping height (in)	≤1 ³ / ₄	
Extension height (mm)	≤12	≤12 ³ / ₈
Applicable casing size	4 ¹ / ₂ "-5 ¹ / ₂ "	4 ¹ / ₂ "-9 ⁵ / ₈ "
size (in)	Φ20. 5X25 ³ / ₈	Φ27. 5X24
Weight (lb)	1410	2094



★ 4. JSQW Drill Pipe Air Slips



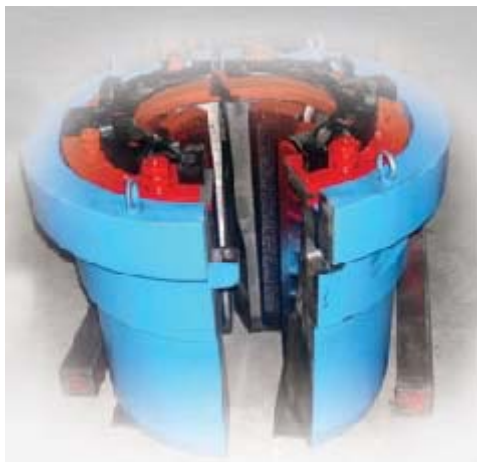
Model JSQW drill pipe air slips features auto-clamping and auto-scraping functions during tripping operation. It is an ideal tool and applicable for all kinds of rotary tables. The slips owns such advantages: convenient installation, simple operation, safe and reliable, highly automated, and can improve tripping speed. Technical specification meets standard SY5049—91.

Technical Specifications

Model		JSQW-175	JSQW-205 (520)	JSQW-275	JSQW-375
Suited for which rotary tables		ZP175	ZP205 (ZP520)	ZP275	ZP375
Working pressure	MPa	0.6—0.9			
	psi	87—130			
Effective clamping length	mm	350	420	420	420
	in	13 ³ / ₄	16 ¹ / ₂	16 ¹ / ₂	16 ¹ / ₂
Rated load	kN	2250	2500	2500	2500
Slip extension height	mm	< 300			
	in	<12			
Pipe range	in	4 ¹ / ₂ "、5"、5 ¹ / ₂ "			
Size	mm	φ 443*584	φ 520*584	φ 697*581	φ 481*612
	in	φ 17.5*23	φ 20.5*23	φ 27.5*23	φ 19*24
Weight	kg	440	620	1020	920
	lb	970	1370	2250	2030



★ 5.FMS-8 AIR MOTORS



FM series of air motors owns wide application. It is suitable for such occasions as stepless speed change, frequent startup, regular reversing, high temperature, high humidity, combustible, explosive, load start and over load, even in the situation unsuitable for man to handle. These air motors are widely used for oil fields, mine, port and chemical industry.

Model		FM _s -8	FM-14	FM _s -14	FM _s -20
Air pressure	MPa	0.5-0.9	0.5-0.9	0.5-0.9	0.5-0.9
	psi	72-130	72-130	72-130	72-130
Power	kW	5.9	10.3	10.3	14.7
	hp	8	14	14	20
Speed	rpm	2800	3200	3200	2900
Rotation		Double	Single	Double	Double
Air consumption	m ³ /min	7.5	9.3	9.3	20
	ft ³ /min	265	328	328	706
Size	mm	220*220*192	186*160*293	186*160*316	222*186*336
	in	9*9*8	7*6*11.5	7*6*12.5	9*7*13
Weight	kg	18	35	35	42
	lb	40	77	77	92.6

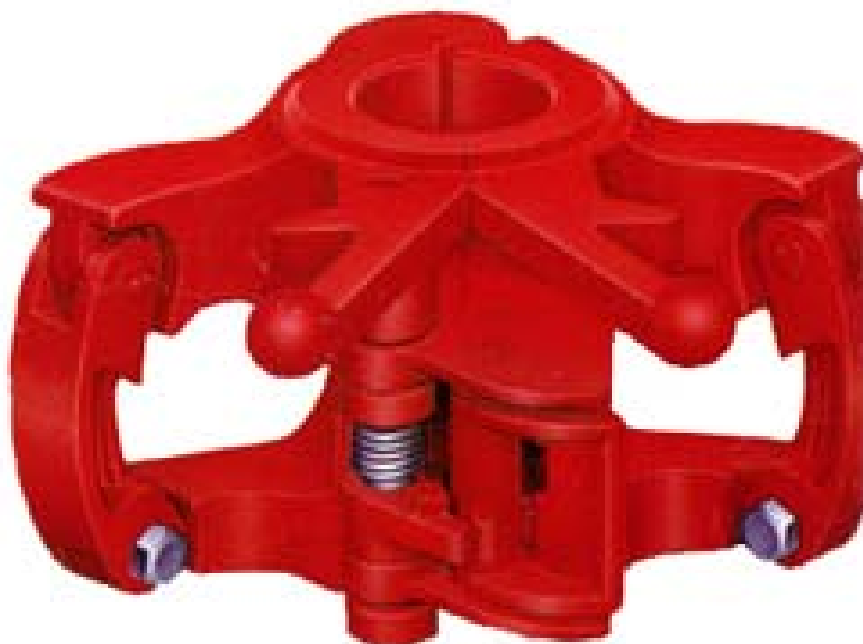


★6. DDZ Elevators



Model DDZ Center Latch Elevators are suitable for handling 18° taper shoulder drill pipe, drilling tools and etc. The Elevators are designed and manufactured according to API Spec 8A-Specification for Drilling and Production Hoisting Equipment.

Model	Drill pipe size and style	Elevator bores	Elevator sign	Max load tons (Kn)
DDZ67	2 3/8EU	67	2 3/8EU	100(900)
DDZ83	2 7/8EU	83	2 7/8EU	150(1350)
DDZ101	3 1/2EU	101	3 1/2EU	250(2250)
DDZ109	4 IU	109	4 IU	350(3150)
DDZ121	4 EU	121	4 EU	
	4 1/2EU		4 1/2EU	
	4 1/2EU		4 1/2EU	
DDZ133	4 1/2EU	133	4 1/2EU	
	5 IEU		5 IEU	
DDZ148	5 1/2 EU	148	5 1/2 EU	



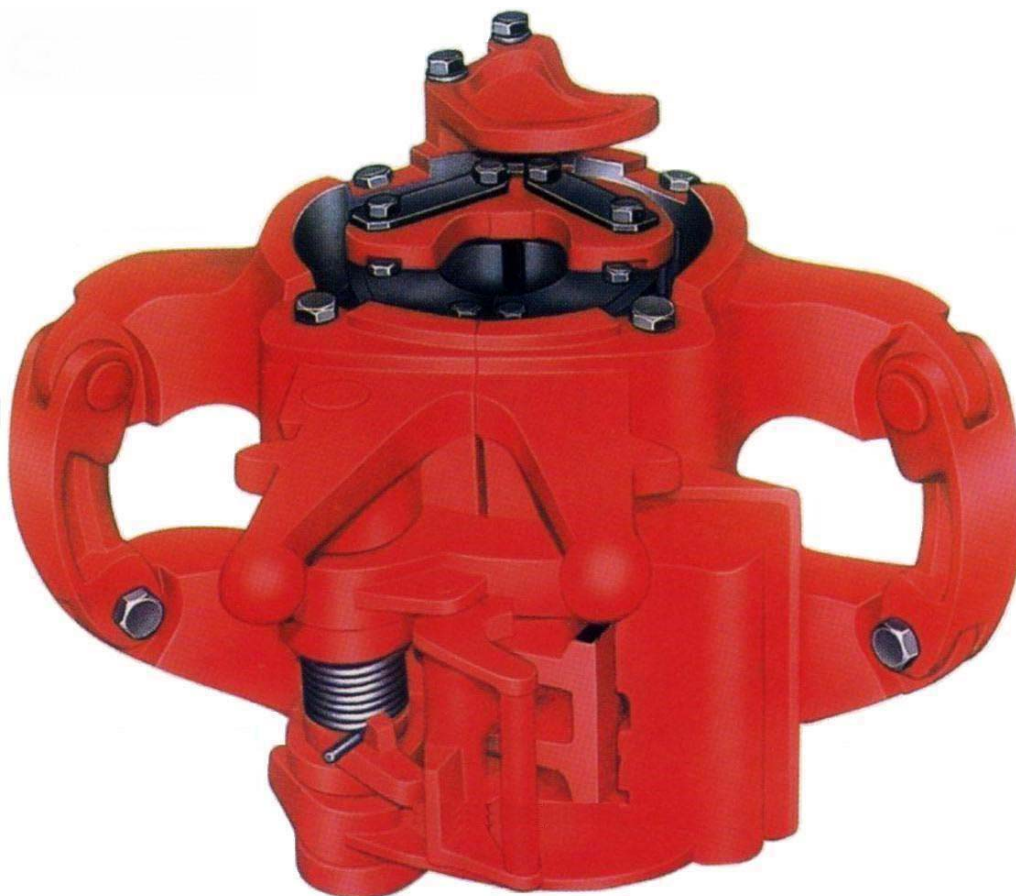


★ 7. Slip Type Elevators

Slip type elevators are holding and hoisting tools for handling drill pipe, casing, tubing in oil and gas field. They are especially fit to integral joint tubing, non-coupled casing, electric submersible pump and other tubular goods. The elevators are designed and manufactured according to API Spec 8A-Specification for Drilling and Production Hoisting Equipment.



Model	Pipe size		Max .load	
	in	mm	kN	Tons
YT	1.315-3 1/2	33.4-88.9	670	75
YC	3 1/2-7	88.9-177.8	670	75
HYT	2 3/8-3 1/2	60.3-88.9	1350	150
MYT	1.315-2 7/8	33.4-73	360	40
LYT	1.05-2 1/16	26.7-52.4	180	20





★ 8.DD Type Center Latch Elevators



The Elevators are hoisting tools for handling 90° shoulder drill pipe, casing, tubing and drill collar in oil and gas field. The Elevators are designed and manufactured according to API Spec 8A-Specification for Drilling and Production Hoisting Equipm

Pipe		Drill pipe						Casing		Tubing			
Model		DD 65	DD 100	DD 125	DD 150	DD 250	DD 350	DD 100	DD 150	DD 65	DD 100	DD 125	DD 150
Pipe O.D. (in)										1.9			
		2 3/8	2 3/8	2 3/8	2 3/8					2 3/8	2 3/8	2 3/8	2 3/8
		2 7/8	2 7/8	2 7/8	2 7/8					2 7/8	2 7/8	2 7/8	2 7/8
			3 1/2	3 1/2	3 1/2	3 1/2					3 1/2	3 1/2	3 1/2
			4		4	4	4				4		4
			4 1/2		4 1/2	4 1/2	4 1/2	4 1/2	4 1/2 - 103/4		4 1/2		4 1/2
			5		5	5	5	5			5		5
					5 1/2	5 1/2	5 1/2	5 1/2					
Max load	kN	585	900	1100	1350	2250	3150	900	1350	585	900	1100	1350
	Ton	65	100	125	150	250	350	100	150	65	100	125	150



★ **9.CD Series Side Door Type Elevators**

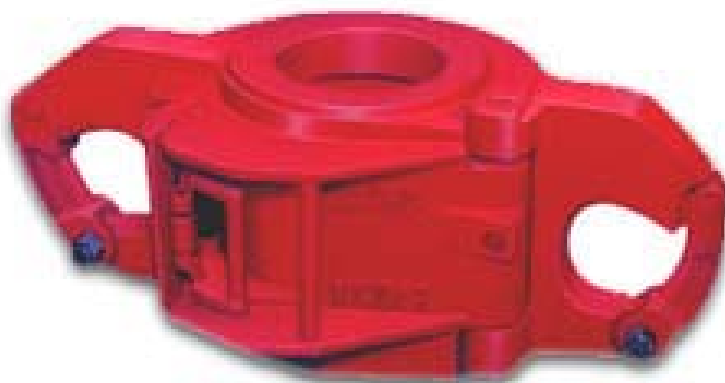


The Elevators are hoisting tools for handling drill pipe, casing, tubing and drill collar in oil and gas field. The Elevators are designed and manufactured according to API Spec 8A-Specification for Drilling and Production Hoisting Equipment.

Type	Pipe O.D.		Max. Dia. weldless links		Max .load
	in	mm	mm	in	kN(tons)
CD	2 3/8-2 7/8	60.3-73.0	69.85	2 3/4	100(900) 150(1350) 200(1800) 250(2250) 350(3150)
	3 1/2-4	88.9-101.6	69.85	2 3/4	
	4 1/2-5 1/2	114.3-127-139.7	69.85	2 3/4	
	6 5/8-8 5/8	168.3-219.1	88.9	3 1/2	
	9 5/8-10 3/4	244.5-273.1	88.9	3 1/2	
	11 3/4-13 3/8	298.5-339.7	88.9	3 1/2	
	14-16	355.6-406.4	88.9	3 1/2	
	18 5/8-20	473.1-508	88.9	3 1/2	
	22-30	558.8-762.0	88.9	3 1/2	
CDZ	Model	Drill pipe size and style	Elevator bores	Elevator sign	Max .load kN(tons)
	CDZ67	2 3/8EU	67	2 3/8EU	150(1350) 250(2250) 350(3150)
	CDZ83	2 7/8EU	83	2 7/8EU	
	CDZ101	3 1/2EU	101	3 1/2EU	
	CDZ109	4 IU	109	4 IU	
	CDZ121	4 EU	121	4 EU	
		4 1/2 IU		4 1/2 IU	
		4 1/2 IEU		4 1/2 IEU	
	CDZ133	4 1/2 IU	133	4 1/2 IU	
		5 IEU		5 IEU	
	CDZ148	5 1/2 IEU	148	5 1/2 IEU	



★ **10.CD Series Side Door Type Elevators**



The Elevators are hoisting tools for handling drill pipe, casing, tubing and drill collar in oil and gas field. The Elevators are designed and manufactured according to API Spec 8A-Specification for Drilling.

Type	Pipe O.D.		Max. Dia. weldless links		Max .load
CD	in	mm	mm	in	kN(tons)
	2 3/8-2 7/8	60.3-73.0	69.85	2 3/4	100(900)
	3 1/2-4	88.9-101.6	69.85	2 3/4	150(1350)
	4 1/2-5 1/2	114.3-127-139.7	69.85	2 3/4	200(1800)
	6 5/8-8 5/8	168.3-219.1	88.9	3 1/2	250(2250)
	9 5/8-10 3/4	244.5-273.1	88.9	3 1/2	350(3150)
	11 3/4-13 3/8	298.5-339.7	88.9	3 1/2	
	14-16	355.6-406.4	88.9	3 1/2	
	18 5/8-20	473.1-508	88.9	3 1/2	
	22-30	558.8-762.0	88.9	3 1/2	
CDZ	Model	Drill pipe size and style	Elevator bores	Elevator sign	Max .load
	in	mm	mm	in	kN(tons)
	CDZ67	2 3/8EU	67	2 3/8EU	150(1350)
	CDZ83	2 7/8EU	83	2 7/8EU	250(2250)
	CDZ101	3 1/2EU	101	3 1/2EU	350(3150)
	CDZ109	4 IU	109	4 IU	
	CDZ121	4 EU	121	4 EU	
		4 1/2 IU		4 1/2 IU	
		4 1/2 IEU		4 1/2 IEU	
	CDZ133	4 1/2 IU	133	4 1/2 IU	
		5 IEU		5 IEU	
	CDZ148	5 1/2 IEU	148	5 1/2 IEU	



★ 11. Drill Collar Elevators



Drill collar elevators are hoisting tools for drill collars with zip lift recess and drill collars with lift plugs in oil and gas field. The Elevators are designed and manufactured according to API Spec

Drill collar size (in)	2 1/2, 2 3/4, 3, 3 1/8, 3 1/4, 3 1/2, 3 3/4, 4, 4 1/8, 4 1/4, 4 1/2, 4 3/4, 5, 5 1/4, 5 1/2, 5 3/4, 6	6 1/4, 6 3/8, 6 1/2, 6 3/4, 7, 7 1/4, 7 1/2, 7 3/4, 8, 8 1/4, 8 1/2, 8 3/4, 9, 9 1/4, 9 1/2, 10, 10 1/2, 11.
Max load tons (Kn)	100(900) 150(1350)	150(1350)

8A-specification for drilling and production hoisting equipment.

Drill collar size (in)	4 1/8, 4 3/4, 5 1/4, 5 1/2, 5 3/4, 6.	6 1/4, 6 1/2, 6 3/4, 7, 7 3/4, 7 1/2, 7 3/4, 8, 8 1/4, 8 1/2, 9, 9 1/2, 9 3/4, 10, 10 3/4, 11, 11 1/4.
Max load tons (Kn)	100(900) 150(1350)	150(1350)



★ 12. Sucker Rod Elevators



SRE sucker rod elevators are suitable for each size sucker rod in well repairing. It can be adjusted by changing the spacer on the body. The elevators are designed and manufactured according to API Spec 8A-Specification for Drilling and Production Hoisting Equipment.

Model	Sucker style(in) rod	Elevator bores(mm)	Max load (tons)	Weight(kg)
SRE19	1/2	19	20	12
SRE23	5/8-3/4	23		
SRE24	3/4-7/8	24		
SRE30	1	30		
SRE32	1 1/8	32		



★ 13. Single Joint Elevator



Single joint elevators are designed and manufactured according to API Spec 8A-Specification for Drilling and Production Hoisting Equipment. The elevators are hoisting tools for handling casing and etc in oil and gas field.

PIPE SIZE		MAX. LONS	
in	mm	kN	tons
2 7/8-5 3/4	60.3-146.1	35	4
6-14	152.4-355.6	45	5
16-36	406.4-914.4	53	6





★14. Rotary Slips



Rotary Slips can accommodate drill pipe from 2³/₈ to 5¹/₂ inch(60.3-139.7mm)O.D.. They are classified as type Short(SDS), Medium(SDML) and Extra Long(SDXL) according to gripping length. SDS slips are designed for shallow hole drilling, SDML slips are the perfect choice for all medium depth drilling, SDXL slips are designed for deep drilling.

MODEL	Slips Body Size(in)		3 1/2			4 1/2		
SDS	Pipe size	in	2 3/8	2 7/8	3 1/2	3 1/2	4	4 1/2
		mm	60.3	73.0	88.9	88.9	101.6	114.3
	weight	kg	53.1	50.3	48.5	64.9	61.7	57.6
		lb	117	111	107	143	136	127
SDML	Pipe size	in	2 3/8	2 7/8	3 1/2	3 1/2	4	4 1/2
		mm	60.3	73.0	88.9	88.9	101.6	114.3
	weight	Kg	87.5	85.3	81.6	94	90.3	85.3
		lb	193	188	180	207	199	188
SDXL	Pipe size	in	-	-	-	3 1/2	4	4 1/2
		mm	-	-	-	88.9	101.6	114.3
	weight	in	-	-	-	103.9	99.3	93
		mm	-	-	-	229	219	205
MODEL	Slips Body Size(in)		5			5 1/2		
SDML	Pipe size	in	4	4 1/2	5	4 1/2	5	5 1/2
		mm	101.6	114.3	127	114.3	127	139.7
	weight	kg	92.5	88.9	84	90.9	84	82.1
		lb	204	196	185	200	185	181
SDXL	Pipe size	in	4	4 1/2	5	4 1/2	5	5 1/2
		mm	101.6	114.3	127	114.3	127	139.7
	weight	kg	107.5	103	96.6	106.1	101.5	95.3
		lb	237	227	213	234	224	210



★ **15.Type Flake Rotary Slips**



We produce two kinds of type of the rotary slips in our company: W 3 1/2-5/100 and W 5-7/100, they can handle various O.D. drill pipes, drill collars or casing by changing insert gripping dies or insert boxes.

Type		W 3 1/2-5/100				W5-7/100							
Drill Pipe OD.	in	3 1/2	4	4 1/2	5	5	5 1/2	5 -9/16	5 3/4	6 1/8	6 1/4	6 5/8	7
	m m	88.9	101. 6	114. 3	127	127	139. 7	141.3	146. 1	155. 6	158. 8	168. 3	177. 8
Max Load (KN)		1000				1000							





★ 16. Drill Collar Slips

There are three kinds of model of DCS Drill Collar Slips: S, R and L. They can accommodate drill collar from 3 inch (76.2mm) to 14 inch (355.6mm) O.D..

Slip type		DCS-S		DCS-R		DCS-L					
Drill Collar OD.	in	3-4	4-4 7/8	4 1/2-6	5 1/2-7	6 3/4- 8 1/4	8-9 1/2	8 1/2- 10	9 1/4- 11 1/4	11 12 3/4	12-1 4
	mm	76.2- 101.6	101.6 123.8	114.3- 152.4	139.7- 177.8	171.5- 209.6	203.2- 241.3	215.9- 254	235- 286	279. 4-23 4	304. 8-33 5.6
weight	kg	51	47	54	51	70	78	84	90	116	107
	lb	112	103	120	112	154	173	185	198	256	237
Insert Bowl No.		API or NO.3							NO.2	NO.1	





★ 17.Type WT Drill Collar Slips

WT Drill Collar Slips can accommodate drill collar from 4 1/2 inch(114.3mm) to 11 1/4 inch(285.8mm) O.D.

Slip type		WT4 1/2-6	WT5 1/2-7	WT6 3/4-8 1/4	WT8-9 1/2
Drill collar OD	in	4 1/2-6	5 1/2-7	6 3/4-8 1/4	8-9 1/2
	mm	114.3-152.4	139.7-177.8	171.5-209.6	103.2-241.3
Weight	kg	49	46	42	39
	ld	108	101	92	86
Insert bowl No.		API OR NO.3			
MAX.LOAD		40TONS			





★ 18. Casing Slips

Casing Slips can accommodate casing from 6⁵/₈ to 30 inch(168.3-762mm) O.D.



Casing O.D.	In	9 5/8	10-3/4	11-3/4	13-3/8	16	18-5/8	20	24	26	30
	Mm	224.5	273.1	298.5	339.7	406.4	473.1	508	609.6	660.4	762
Weight	Kg	87	95	112	118	140	167	174	201	220	248
	lb	192	209	247	260	308	367	383	443	486	546
		No 2		No 1							





★ 19. Safety Clamps

Safety Clamps are tools for handling flush joint pipe and drill collar. there are two kinds of model of safety clamps. Model WA-C Safety clamps can accommodate pipe from 3¹/₂ to 15⁵/₈inch(88.9-396.9mm)O.D Model WA-T Safety Clamps can accommodate pipe from 1¹/₈ to 4¹/₂(28.6-114.3mm)O.D

Model	Handling pipe size		Weight	
	in	mm	kg	lb
WA-C	3 1/2-4 5/8	88.9-117.5	20.9	46
	4 1/2-5 5/8	114.3-142.9	25.0	55
	5 1/2-6 5/8	139.7-168.3	27.7	61
	6 1/2-7 5/8	165.1-193.7	29.1	64
	7 1/2-8 5/8	190.5-219.1	31.3	69
	8 1/2-9 5/8	215.9-244.5	32.7	72
	9 1/2-10 5/8	241.3-269.9	40.0	88
	10 1/2-11 5/8	266.7-295.3	41.8	92
	11 1/2-12 5/8	292.1-320.7	44.0	97
	12 1/2-13 5/8	317.5-346.1	46.3	102
	13 1/2-14 5/8	342.9-371.5	48.6	107
	14 1/2-15 5/8	368.3-396.9	50.9	112
WA-T	1 1/8-2	28.6-50.8	16.3	36
	2 1/8-3 1/4	54.0-82.6	18.2	40
	3 1/2-4 1/2	88.9-114.3	20	44

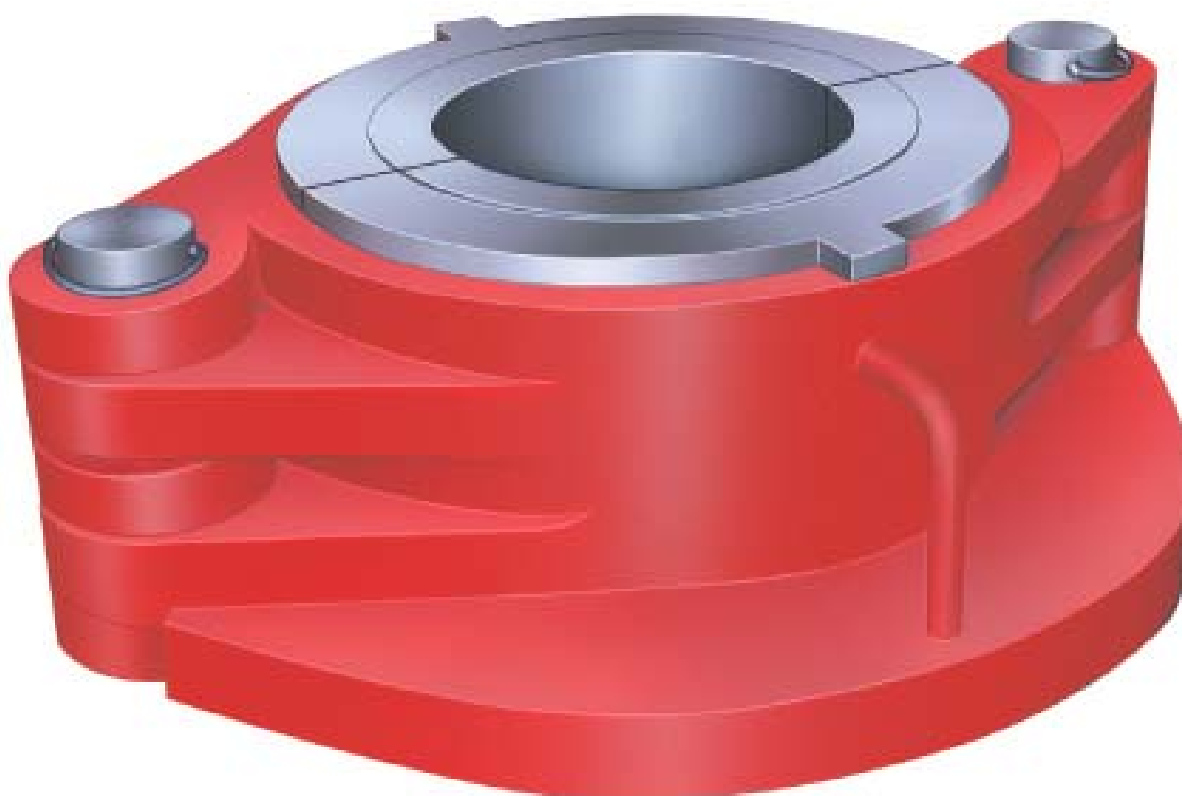




★ **20.Casing Spiders**



The Hinged Casing Spider has a capacity of 200 or 500 Tons, Without insert bowls, will handle 18⁵/₈ and 20 inch casing, Insert bowls are available, and alone or in combination, can handle 2³/₈-8⁵/₈, 9⁵/₈-10³/₄, 11³/₄-13³/₈, 16 inch diameter casing.





★ 21. Manual Tong Dies and Slip Inserts



The manual tong dies and slip inserts are made of high-quality alloy steel in our company. They are chemically heart-treated for surface hardness. They are wear-resisting and corrosion-resisting and they have a long service life. We can also design and manufacture special inserts according to customer's requirement.

Use for product	Pipe size (in)
W-SDS (Rotary slips)	2 3/8-4 1/2
W-SDML(Rotary slips)	2 3/8-5 1/2
W-SDXL(Rotary slips)	3 1/2-5 1/2
3 1/2-5(Rotary slips)	3 1/2-5
5-7(Rotary slips)	5-7
W3 1/2-75(125)(Rotary slips)	2 3/8,2 7/8,3 1/2
5-75(125,200) (Rotary slips)	4,4 1/2,5
DCS-S (Drill collar slips)	3-4 7/8
DCS-R (Drill collar slips)	4 1/2-7
DCS-L (Drill collar slips)	6 3/4-14
WT (Drill collar slips)	4 1/2-11 3/4
8" (Drill collar slips)	8
9" (Drill collar slips)	9
Casing slips	6 5/8-30
WA-C (Safety clamps)	3 1/2-15 5/8
WA-T (Safety clamps)	1 1/8-4 1/2
QQP60-89/585 (Pneumatic spider)	2 3/8-3 1/2
QQP60-89/675 (Pneumatic spider)	2 3/8-3 1/2
QQP60-127/900 (Pneumatic spider)	2 3/8-5
Well repair manual tongs	2 3/8-10 3/4
B Manual tongs	2 3/8-12 3/4
DB Manual tongs	3 1/2-17
13 3/8 Casing manual tongs	13 3/8
Q13 3/8-30 Casing manual tongs	13 3/8-30



★ 22. Roller Kerlly Bushings

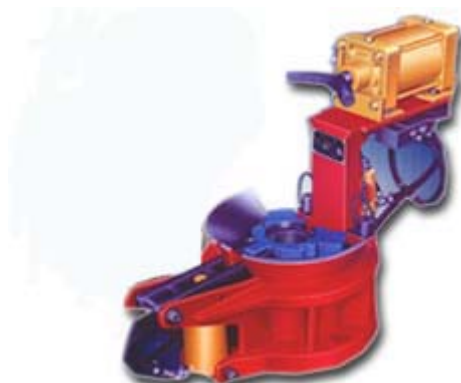


Roller Kerlly Bushings are used for 17¹/₂-49¹/₂ inch rotary tables. They are designed and manufactured according to API Spec

Model	type	Way of drive	Suitable for kelly	
			Square (in)	Hex (in)
HDS	Heavy	Square drive	3-6	3-6
27-HDP		Pin drive	3-6	3-6
20-HDP		Pin drive	3-6	3-6
PTM4	Medium	Square drive	2 1/2-5 1/4	3-4 1/4
20-MDP		Pin drive	2 1/2-4 1/4	3-4 1/4
17-MDP		Pin drive	2 1/2-4 1/4	3-4 1/4
RTS4	Light-duty	Square drive	2 1/2-4 1/4	3-4 1/4



★ 23. Pneumatic Spiders



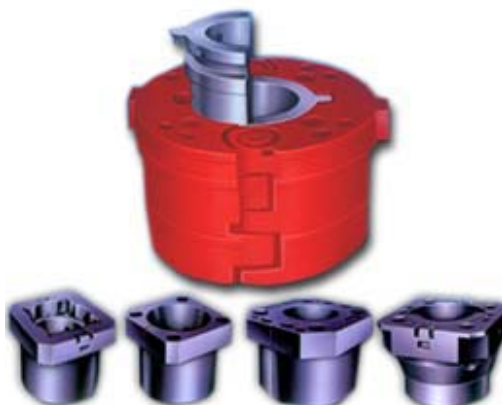
Type QQP Pneumatic spiders are utilized to grip drill pipe and tubing in oil well repairing.

Model	Max load tons (kN)	Contact pipe size mm(in)
QQP/585	60 (585)	60.3-88.9 (2 3/8-3 1/2)
QQP/675	75(675)	60.3-88.9 (2 3/8-3 1/2)
QQP/900	100 (900)	60.3-127(2 3/8-5)
C Type	80	2 3/8-4 1/2
CHD Type	120	2 3/8-4 1/2





★ 24. Master Bushing



Our company produce the master bushings and insert bowls with the size from 17¹/₂ to 37¹/₂ inch. They are cast with high-quality alloy steel and the sizes conform to API Spec 7K. There are two kinds of type. pin drive and square drive. API standard rotary slip, drill collar slip, casing slip or roller Kerlly bushing can be contained in them.

Bushing type		Rotary table size (in)	Hand tubular OD (IN)
MSS	Square Drive (separate)	17 1/2 (18)	2 3/8-8 5/8
		20 1/2	
		23	
		27 1/2	
	Square drive (integrate)	17 1/2	
		20 1/2	
		22	
		23	
		27 1/2	2 3/8-10 3/4
MSAC	Pin drive (integrate)	20 1/2	
		23	
		27 1/2	2 3/8-8 5/2
MDSP	Pin drive (separate)	17 1/2	
		18	
		20 1/2	2 3/8-8 5/2
MSP	Pin drive (separate)	23	
		27 1/2	2 3/8-8 5/2
MPCH	Pin drive	37 1/2	2 3/2-13 3/2



★ **25. Master Bushing Accessories**

Bit Breaker Adapter Plates are located in the Master Bushing drive pin holes and provide a 13⁹/₁₆ inch square to accommodate Bit Breakers. They are used for MPCH, MSPC, MDSP and MSP. P/N:1816 use for 23-49¹/₂ inch master bushing; P/N 1815 use for 17¹/₂-21 inch master bushing.

Lifting Sling for removing and installing bushings and insert bowls

With 2 hooks P/N1021 for removing and installing insert bowls

With 4 hooks P/N6699 for removing and installing bushings

Bit breakers are mostly used for screwing standard 3-cone bit.



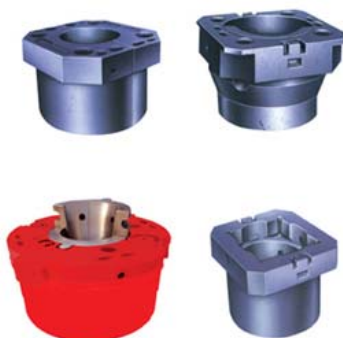


★26. Casing Bushings



Type CU, CUL, CB and etc. casing bushings and insert bowls can handle casing from 9⁵/₈ to 30 inch O.D. Type CU and CUL are solid bushings; Type CB are split b

Rotary table size(in)	Bushing type		Casing size (in)							
	typ e	P/N	2 3/8-8 5/2	9 5/8	11 3/4-13 3/8	16	18 5/8-20	24	26	30
17 1/2 or 20 1/2	CU	Casing bushing and insert bowl	Body 3102&insert 180P	Body 3102/insert 1902	Body 3102					
26 or 27 1/2	CU L		Body 3103/insert 3105&180 P	Body 3103/insert 3105&190 2	Body 3103/inse rt 3105	Body 3103/inse rt 3104	Body 3103			
27 1/2	CB		insert 6126&611 5	Body 6695/inse rt 6114	Body 6695/inse rt 6126	Body 6695/inse rt 6127	Body 6695			
37 1/2 or 49 1/2			20/ insert 6126&611 5	Body 20/ insert 6114	Body 20/insert 6126	Body 20/insert 1627	Body 20	Bod y 24	Bod y 26	Bod y 30



转盘补心
Master Bushings



★27. Type SL Swivels



The swivels are necessary hoisting tools for hanging drill pipe and jointing hose in well repairing. They have type SL35, SL60, SL90 and SL135.

TYPE	SL35	SL60	SL90	SL150
Max. load (kn)	360	585	900	1350
Main bearing load rating (kn)	200	300	600	1000
Rated working pressure (Mpa)	14	14	21	35
ID of wash pipe(mm)	50	50	62	76
Gooseneck thread (in)	2 7/8TBG	2 7/8TBG	3 1/2TBG	3LP
Lower connection thread(in)	3 1/2REG,LH	3 1/2REG,LH	4 1/2FH,LH	4 1/2REG,LH
Measurement(lengthXdia)	1420X230	1600X280	1820X320	2022X775
Weight (kg)	188	290	320	400
Or according to request of client				



★28. Other Tools



The load binder is a general manual towing tool. It is suitable for all location of towing, hanging and tightening, especially suitable for tightening the guys of work-over rig. Max. working load is 30 kN.

Chain tongs are mostly used to make up or break out pipe. It can turn in either direction. Used for 1 $\frac{1}{2}$ -10 inch pipe. Max. working load is 1680N.m Length is 27-57inch.

Sucker rod elevating socket is used to handle single sucker rod, and is hung on the nacelle of workover rig. Max. working load is 400psi, used for 1 $\frac{1}{2}$ -1 $\frac{1}{8}$ inch sucker rod.

The Sucker Rod Blowout Preventer is used to prevent oil and gas from leaking, and ensure washing wells and etc. go on smoothly. Max. working pressure is 1500psi, used for 1 $\frac{1}{2}$ -1 $\frac{1}{8}$ inch sucker rod.

Knuckle joint swab is used for production test and oil extraction in oil production. Allows cups to be changed in just 10 seconds. To disassemble, the mandrel is lift 90°, and the two sections of the joint are separated. It assure rapid running and smooth, trouble-free swabbing.

Type QB portable tubing tong is a tool to make up or break out tubing. The main parts of tubing tong are forged with super steel.

QB Portable Tubing Tong

Tubing size (in)	2 3/8	2 7/8	3 1/2	4	4 1/2
Max .torque (kn.m)	700	1000	1500		



★ **29.FMS-14 AIR MOTORS**



FM series of air motors owns wide application. It is suitable for such occasions as stepless speed change, frequent startup, regular reversing, high temperature, high humidity, combustible, explosive, load start and over load, even in the situation unsuitable for man to handle. These air motors are widely used for oil fields, mine, port and chemical industry.

Model		FM _s -8	FM-14	FM _s -14	FM _s -20
Air pressure	MPa	0.5-0.9	0.5-0.9	0.5-0.9	0.5-0.9
	psi	72-130	72-130	72-130	72-130
Power	kW	5.9	10.3	10.3	14.7
	hp	8	14	14	20
Speed	rpm	2800	3200	3200	2900
Rotation		Double	Single	Double	Double
Air consumption	m ³ /min	7.5	9.3	9.3	20
	ft ³ /min	265	328	328	706
Size	mm	220*220*192	186*160*293	186*160*316	222*186*336
	in	9*9*8	7*6*11.5	7*6*12.5	9*7*13
Weight	kg	18	35	35	42
	lb	40	77	77	92.6



★ 30.FMS-20 AIR MOTORS



FM series of air motors owns wide application. It is suitable for such occasions as stepless speed change, frequent startup, regular reversing, high temperature, high humidity, combustible, explosive, load start and over load, even in the situation unsuitable for man to handle. These air motors are widely used for oil fields, mine, port and chemical industry.

Model		FM _s -8	FM-14	FM _s -14	FM _s -20
Air pressure	MPa	0.5-0.9	0.5-0.9	0.5-0.9	0.5-0.9
	psi	72-130	72-130	72-130	72-130
Power	kW	5.9	10.3	10.3	14.7
	hp	8	14	14	20
Speed	rpm	2800	3200	3200	2900
Rotation		Double	Single	Double	Double
Air consumption	m ³ /min	7.5	9.3	9.3	20
	ft ³ /min	265	328	328	706
Size	mm	220*220*192	186*160*293	186*160*316	222*186*336
	in	9*9*8	7*6*11.5	7*6*12.5	9*7*13
Weight	kg	18	35	35	42
	lb	40	77	77	92.6



★ 31.CMN SERIES OF GEAR MOTORS

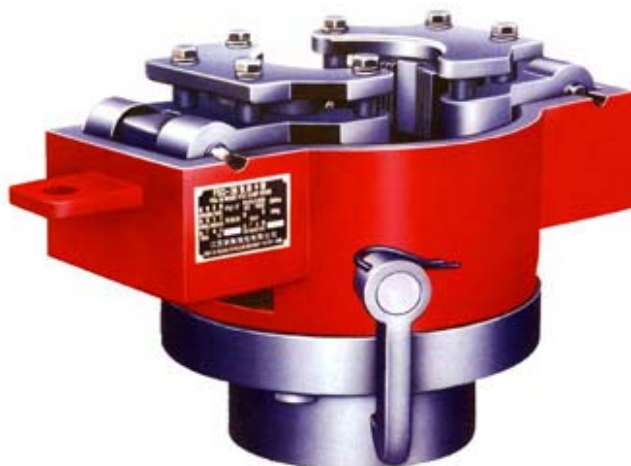


With middle sealed structure and axial floating compensation, there series of gear motors feature high output voltage, impact resistant, low noise, high efficiency and reliable operation. They are applicable for oil fields, mine and shipboard.

Model		CMN80	CMN112	CMN135	CMN150
Theoretical discharge	ml/r	80	112	135	150
	gal/r	0.021	0.0296	0.0356	0.0396
Pressure rating	MPa	16	16	18	16.6
	psi	2320	2320	2610	2400
Maximum pressure	MPa	20	20	20	20
	psi	2900	2900	2900	2900
Theoretical torque	N.m	200	288	330	390
	ft. lbf	44.9	64.7	74.1	87.6
Speed range	rpm	500-2500	500-2500	500-1200	500-1200
Volumetric efficiency		85%	85%	85%	85%
Overall efficiency		77%	77%	77%	77%
Size	mm	287*164*194	336*164*194	293*230*228	310*249*230
	in	11*6*7	13*6*7	12*9*9	12.2*9.8*9.5
Weight	kg	28	31	35	38
	lb	61.7	68.3	77.2	83.8



★32.FSQ162-36 MOUSE HOLE CLAMPING DEVICE



The device is a special tool for clamping drill pipe in mouse when making-up and breaking-out the drill pipe in drilling operation. The most obvious feature of it is auto-adjustable clamping force. The clamping device is to conduct single connecting by matching with kelly spinner, no need to pull rotary rope, which greatly relieve labor force and eliminate accidents. It is designed and manufactured according to API Spec 7K "Specification for Drilling Equipment"

Model		FSQ162-36	
Drill pipe size	mm	ø146 coupling	ø162 coupling
	in	4 ¹ / ₂ coupling	5 coupling
Torque rating	kN.m	36	
	ft. lbf	2655	
Opening size	mm	171	
	in	Apr-63	
Size	mm	770*480*422	
	in	30.3*18.9*16.6	
Weight	kg	240	
	lb	530	



★ **33.FP SEALED ANTI-SPRAYING BOXES**



FP sealed anti-spraying box is widely used to prevent mud spraying and contaminating the drill platform during breaking-out and making-up of drilling tools. It is simple, safe, reliable with long service life.

Applicable range	mm	88.9mm~ 177.8mm			
	in	3 ¹ / ₂ " Body~ 5 ¹ / ₂ " coupling			
Drill pipe size	5 ¹ / ₂ "	5"	4 ¹ / ₂ "	4"	Feb-31
	Body-body	Body-body	Body-body	Body-body	Body-body
	5 ¹ / ₂ "	5"	4 ¹ / ₂ "	4"	3 ¹ / ₂ "
	Body-coupling	Body-coupling	Body-coupling	Body-coupling	Body-coupling
Flow sub	R4"				
Size	mm	1840× 800×510			
	in	73×32× 20			
Weight	kg	140			
	lb	308			



★ 34. TF CASING GUIDE

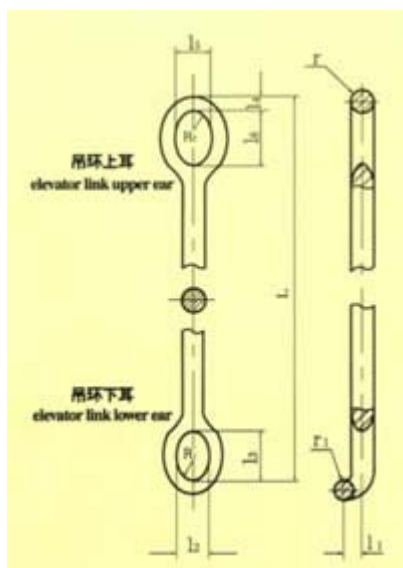


In the course of casing operation, TF casing guide is mainly used to support the top part of casing and make casing operation perform smoothly under bad weather. It features convenient installation and simple handling.

Model		TF-1600/210	TF-2200/210
Gripping Diameter	mm	210	210
	in	Apr-81	Apr-81
Air pressure	MPa	0.6-0.9	0.6-0.9
	psi	87-130	87-130
Maximum extension length	mm	1600	2200
	in	63	87
Size	mm	2376*1037*950	2350*550*615
	in	93.5*41*37	93*22*24
Weight	kg	510	550
	lb	1125	1213



★ **35. TYPE DH SINGLE ARM ELEVATOR LINKS**



Elevators links are suitable for hanging pipes in the operation of well drilling or repairing. According to the structures, they have two forms: Type DH & Type SH.



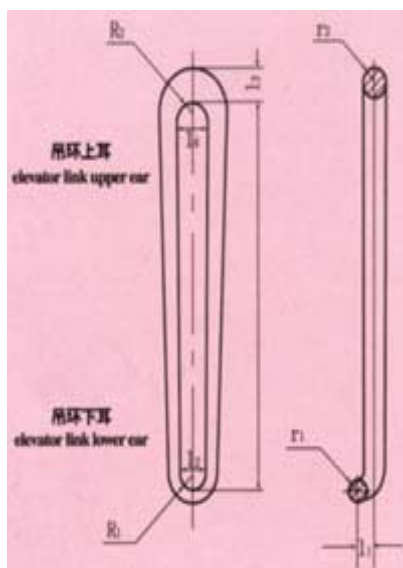
API Spec 8A-0064
API Spec 8C-0077

MAIN PARAMETERS OF TYPE DH SINGLE ARM ELEVATOR LINKS

Type	Connecting sizes between elevator link lower ears and elevators(mm)					Connecting sizes between elevator link upper ears and drilling hooks(mm)					L(mm)	Rated Cap.Per Set KN(t)
	$r_1 \leq$	$R_1 \geq$	$l_1 \geq$	$l_2 \geq$	$l_3 \geq$	$r \leq$	$R_2 \geq$	$l_4 \leq$	$l_5 \geq$	$l_6 \geq$		
DH360	20	51	20	100	150	22	38	60	120	180	1200	360 (40)
DH585	22	51	20	100	150	22	64	70	120	180	1100	585 (65)
DH900	22	51	20	100	150	29	64	80	140	190	1500	900 (100)
DH1350	24	51	25	100	150	29	64	100	140	210	1800	1350 (150)
DH2250	31	70	30	140	200	35	102	140	200	250	2700	2250 (250)
DH3150	37	70	35	140	200	35	102	140	200	250	3300	3150 (350)
DH4500	48	83	50	170	250	48	121	160	240	300	3600	4500 (500)
DH6750	57	127	50	190	318	63	127	190	262	305	3660	6750 (750)
L:Dimensions of recommendation .It can be changed if necessary.												



★ **36. TYPE SH DOUBLE ARMS ELEVATOR LINKS**



API Spec 8A-0064
API Spec 8C-0077

MAIN PARAMETERS OF TYPE SH DOUBLE ARMS ELEVATOR LINKS

Type	Connecting sizes between elevator link lower ears and elevators(mm)				Connecting sizes between elevator link upper ears and drilling hooks(mm)				L(mm)	Rated Cap.Per Set KN(t)
	$r_1 \leq$	$R_1 \geq$	$l_1 \geq$	$l_2 \geq$	$r \leq$	$R_2 \geq$	$l_3 \leq$	$l_4 \geq$		
SH225	15	29	20	58	22	38	35	90	600	225 (25)
SH360	20	51	20	100	22	38	45	100	1100	360 (40)
SH585	22	51	20	100	22	64	65	120	1100	585 (65)
SH675	22	51	20	100	29	64	75	160	1500	675 (75)
SH900	22	51	25	100	29	64	80	160	1500	900 (100)
SH1350	24	51	35	100	29	64	100	160	1700	1350 (150)
L:Dimensions of recommendation .It can be changed if necessary.										