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# TMG Drifter Products Catalog

- ✔ *TD Series ( Similar to Atlas Copco products) . . . . . 1-9*
- ✔ *DZ Series ( Similar to Sandvik Tamrock drifter products) . . . . . 10-14*
- ✔ *TW Series (Montabert type drifter products) . . . . . 15-26*

**QINGDAO Tunnel Mine Equipment Technology Co.,Ltd.**

✔ *TD Series Hydraulic Drifter Products*



Drifters made by TMG could match the requirement of Boomer product and Simba product from Atlas copco old models.



**TD170 Drifter**



#### **APPLICATION:**

TD170 fully hydraulic drifter applied for the Underground face drill and production drill as well as tunneling face drilling machines.

#### **PERFORMANCE CHARACTERISTICS:**

- TD 170 advanced configuration with high frequency.
- Dual return oil type punching design, compatible piston and shank design enhance the efficiency of drilling and prolong the piston and shank lifetime as well as reduce the return resistance and pressure shaking.
- Dual-Rotation motor with stepless with higher efficient torque to avoid rods block.
- Dual buffering system protect the rods shaking from inflection of rocks and fix the drilling position and keep the bits tighten.
- Side Air-in device easy to seal. Stainless Steel washing nozzle and top quality seal to drill @ 100 Mpa Air pressure.
- Lube for Shank assure the Lube and Cooling to avoid the dust.
- The combined action of oil inlet, buffer and oil return accumulators ensures the stability of rock drill, propeller, drill arm and hydraulic system operation improves production efficiency and reduces failure rate and maintenance workload.



## Main Technical Specifications

### 1 Drilling Parameters

Chart No. 2 TD 170

No.	Item	Unit	Face Drilling	Production Drilling
1	Rod Diameter	mm	41~76	64/70/76/89
2	Depth	m	6.4	25
3	Shank	mm	R38/T38	R38/T38
4	Rod size	mm	R38/T38	R38/T38
5	Length	mm	2400~6400	280/915/1220/1525/1830
6	Application Vehicle		ZCYTJ15/ZCYTJ15.2/BOOMER281/282	SIMBER1354/1254

### 2 Performance

Chart No. 3 TD 170

1	Max Frequency	H z	60
2	Max Punching power	J	330
3	Rotation RPM	rpm	0-215
4	Motor Discharge	ml/r	100/160
5	Max Rotation Torque	N m	720

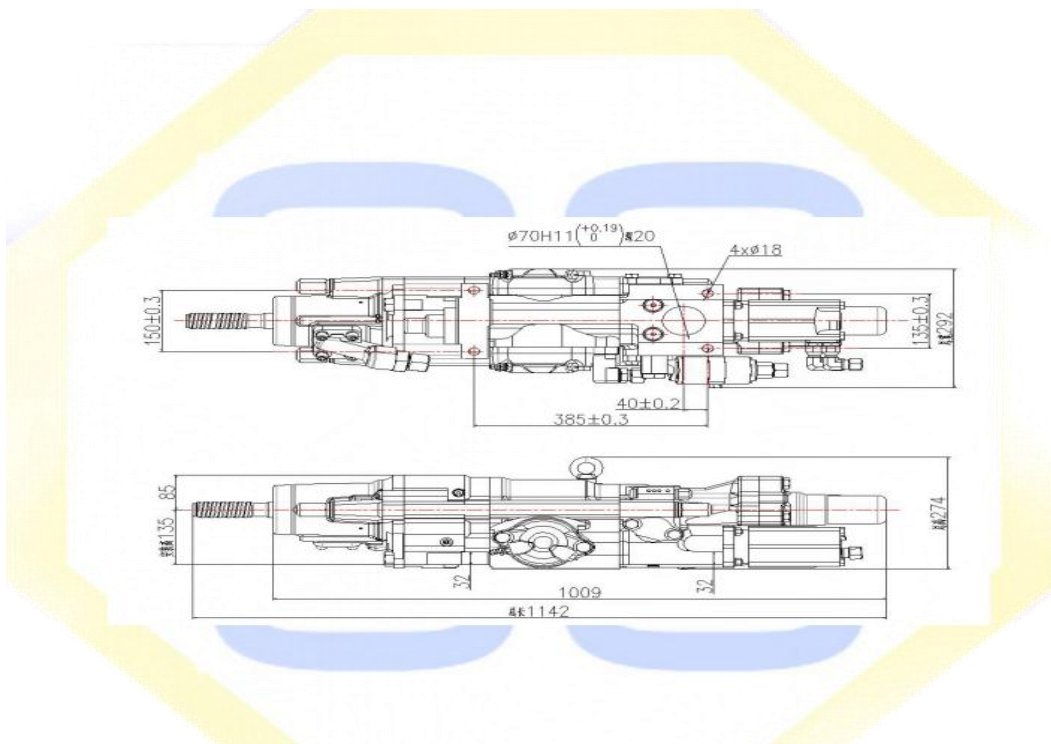


### 3 Requirement

Chart No. 4 TD 170

Punching	1	Max Punching Oil in	L/mi	92
	2	Punching oil pressure	MPa	23
Buffering	3	Buffering oil in	L/mi	8
	4	UNloading	n MPa	4.5
	5	Buffering pressure	MPa	5-12
Rotation	6	Rotation volume	L/mi	40-120
	7	Pressure	MPa	2
Lube Air	8	Compressor Air Volume	L/mi	300
	9	Pressure	MPa	0.2~0.3
Flushing	10	Flushing Volume	L/mi	40- 120
	11	Flushing Pressure	MPa	2

### 4 Outline and Size





**Chart No. 5 TD 170**

1	L without Shank	mm	1009
2	L (with Shank )	mm	1142
3	W	mm	292
4	H	mm	274
5	Height from Center	mm	85
6	Weight ( with Shank )	kg	170
7	Weight (without Shank )	kg	164.1

## 5 Specification of oil and gas interface

**Chart No.6 TD 170 Fittings**

No.	Item	Hydraulic/ Air fitting	Fitting size	Hose
1	Punching oil In	G3/4	Fitting G3/4 to U1. 1/16	DN19
2	Punching oil out	G3/4	Fitting G3/4 to U1. 1/16	DN19
3	Buffering oil in	G3/8	Fitting G3/8 to U9/16	DN10
4	Rod oil in	G1/2	Fitting G1/2 to U7/8+90 fitting U7/8	DN 12
5	Rod oil out	G1/2	Fitting G1/2 to U7/8+90° fitting U7/8	DN 12
6	Return oil of overflow	G1/2	Fitting G1/2 change to U7/8	DN 12
7	Oil&Air fitting	G3/8	Fitting G3/8 to U3/4	DN 10
8	Water connector	G1	Fitting G1 to U1.5/16/ or U1 1/16	DN 25/19



## 6 Accumulator Pressure

Charter No.7 TD 170

1	Oil accumulator pressure	MPa	9- 11
2	Buffering pressure	MPa	2-2.5
3	Return	MPa	0

## 7 Hydraulic Oil

Chart No. 8 TD 170

No.	Standard	Standard Temp.	Max Temp.	Min Temp.	Remarks
1	ISO VG46	35-50℃	65℃	- 10℃	≥100
2	ISO VG68	45-60℃	75℃	-5℃	≥100

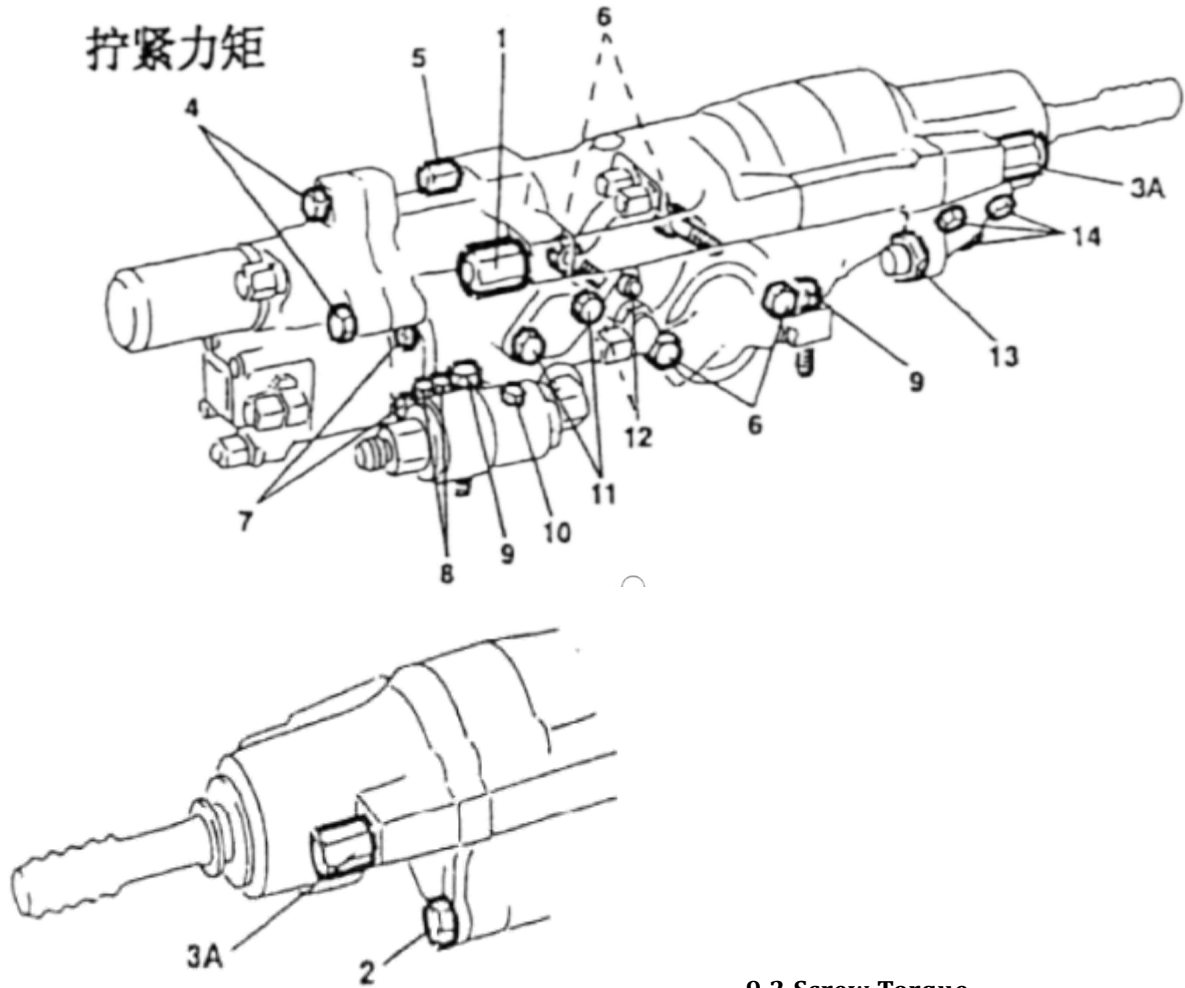
## 8 Lube

Chart No.9 TD 170 Rock Drill Grease Parameters

Temp.	Viscosity	Leakage	NLGL Index	Additive	Water-Proof
-20~+150℃	40℃@110cSt	250℃	2	Thickner wihtout slag Anti- Oxgen Anti- Rust	Good

## 9 Screw torque

### 9.1 Code



### 9.2 Screw Torque

Screw 1、2、3A : Tighten firstly 1, Tight once more 2, Final 3A, Follow up the step by step

## 10 TD 170 Torque

S-code	Position	Type	Qty	Torque / Nm	Requirement
1	Rear Srew	M20	2	300	Tighten
2	Front Bolt	M20	1	300	Tighten
3A	Front screw	M20	2	350	Tighten
4	Body bolt	M16	3	220	Up to Max torque
5	Stroke adjustments crew	M14	1	80	





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6	Bolt of Accumulator	M16	4	220	Up to Max torque
7	Motor screw	M10	4	65	Tighten
8	Return accumulator fixing bolt	M8	2	30	
9	Drifter installation screw	M16	4	250	Up to Max torque
10	Screw	U1/2	1	45	
11	Valve cover screw	M14	4	145	Up to Max torque
12	Flange bolt	M12	2	120	Up to Max torque
13	Washing Fitting	G1 change U1.5/1 6	1	300	
14	Washing flange screw	M12	4	90	Up to Max torque



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✔ *DZ Series Drifter ( Similar to Sandvik Tamrock drifter products)*



## Product Features:

- For large bore holes, the series of rock drills specially increase the quality of the impact piston and improve the strength of the body. The rock drill has greater impact energy while increasing the impact frequency of the rock drill  $\Phi 127 \sim \Phi 152$  drill holes, with a drilling speed of 1.2~1.5m/min
- Slender impact piston, whose diameter size matches the diameter of drill pipe, can greatly reduce the peak value of impact stress wave. Improve the service life of drill pipe.

## DZ Series Product:

Drifter Model	Weight	Center Height	Size ( Shank without )	Pressure	Punching flow	Power	Frequency	Max Punching Power	RPM	Torque	Rods	Drilling Diameter	Flushing flow
	kg	mm	mm	Mpa	L/min	kW	HZ	J	r/min	Nm		mm	L/S
DZ822	292	122	1150 x 330 x 350	21	100~110	22	40~60	550	0~180	1300	T45/T51	76~127	120
DZ825	292	122	1150 x 330 x 350	21	115~125	25.5	46~65	550	0~200	1600	T45/T51/ T60	76~127	120
DZ828	292	122	1150 x 330 x 350	21	130~145	28	47~65	600	0~180	1800	T51/T60	89~140	150
DZ833	299	122	1200 x 330 x 350	23	140~160	33	55~70	600	0~180	1800	T51/T60	89~140	150
DZ838	299	122	1200 x 330 x 350	23	160~180	38	54~65	700	0~150	2000	T60/ZT82	102~152	180

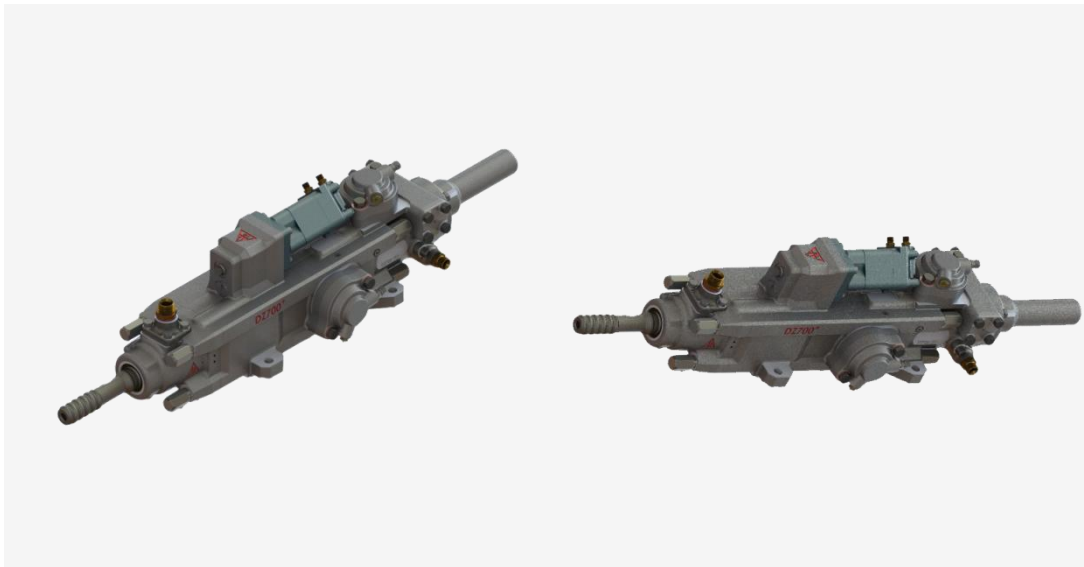
Optimize the Punching Piston similar as the Cop standard. High frequency and punching force could realize 1.2~1.5m/min@ $\Phi 127 \sim \Phi 152$ .

Thin&long punching piston match the rods to release the force apex to prolong the lifetime of rods.

Electrical hydraulic and Oil lube system: Shank guider lube and cool. Keep the temperature below 80°C so protect the seals kits. Lube the connector section to decrease the abrasion.



Compared with Pneumatic drifter: double lifetime and higher efficiency to 60% pneumatically 30%.  
Buffer system could absorb the rebound force to assure Rods and rocks wonderful connection.  
Boring Speed  $\Phi 127 \sim \Phi 140$ mm more than 1m/min  
Electric Lube system: Connection section completely lube to prolong the lifetime of drifter.





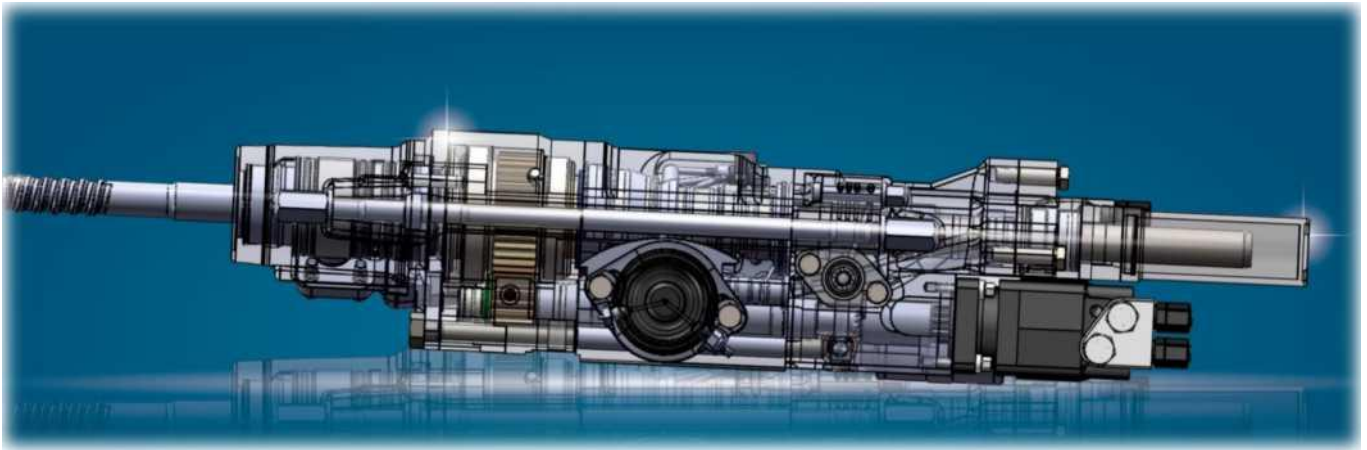
**Product Details**

Drifter Model	Weight	Center Height	Size Without shank	Pressure	Punching flow	Power	Frequency	Max Punching power	RPM	Torque	Rods	Drilling Diameter	Flushing flow
	kg	mm	mm	Mpa	L/min	kW	HZ	J	r/min	Nm		mm	L/S
DZ718	208	82	1110 x 330 x 295	21	72~90	15	48~70	320	0~200	700	T38/T45	51~89	80
DZ718	208	82	1110 x 330 x 295	21	85~100	18	52~70	350	0~200	800	T38/T45	51~102	90
DZ722	208	82	1110 x 330 x 295	21	105~120	22	55~75	400	0~200	800	T38/T45	51~102	90



Drifter Model	Weight	Center Height	Size Without shank	Pressure Mpa	Punching flow L/min	Power kW	Frequency HZ	Max Punching power J	RPM r/min	Torque Nm	Rods	Drilling Diameter	Flushing flow
	kg	mm	mm									mm	L/S
DZ718H	215	82	1150 x 330 x 295	23	82~95	19	48~65	400	0~200	1000	T38/T45/T51	64~102	90
DZ720H	215	82	1150 x 330 x 295	23	90~100	21	42~60	500	0~180	1200	T38/T45/T51	64~115	100
DZ722H	215	82	1150 x 330 x 295	23	90~110	22.5	45~65	500	0~180	1200	T38/T45/T51	76~127	120
DZ725D	220	82	1200 x 330 x 295	22	115~125	25	45~60	550	0~150	1350	T45/T51/T60	76~127	120
DZ730D	220	82	1200 x 330 x 295	22	135~150	29	48~60	600	0~130	1500	T51/T60	89~140	150

✔ *TW Series Drifter (Montabert type drifter products)*

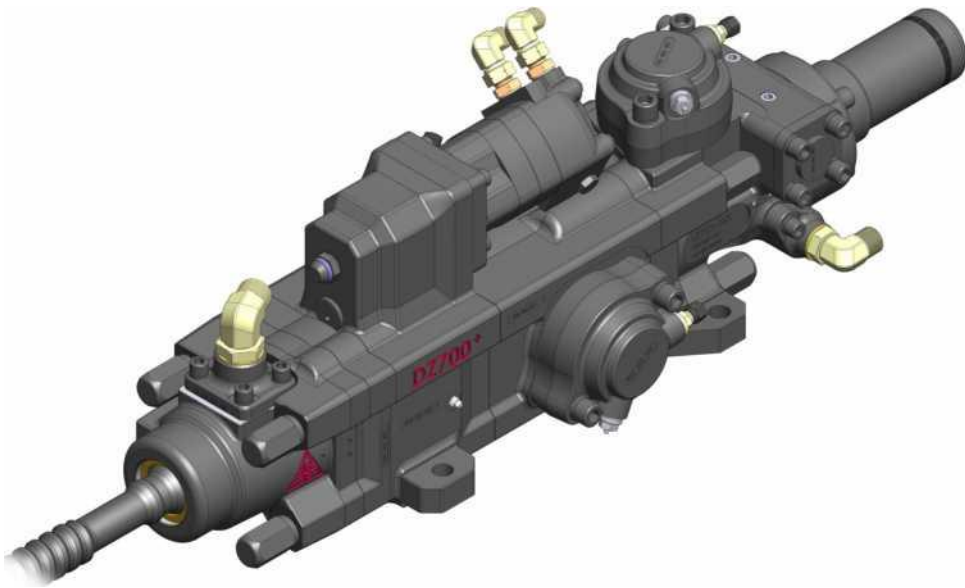


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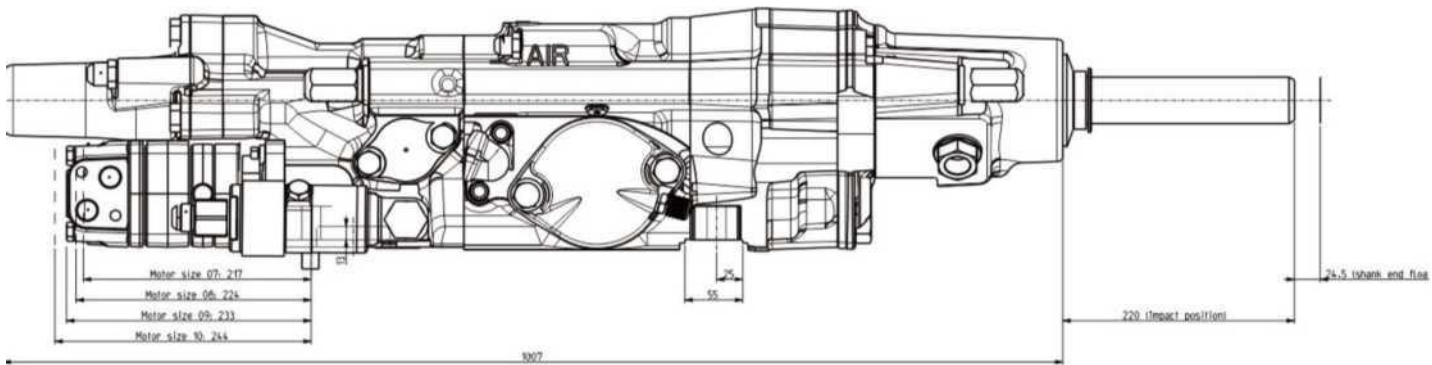
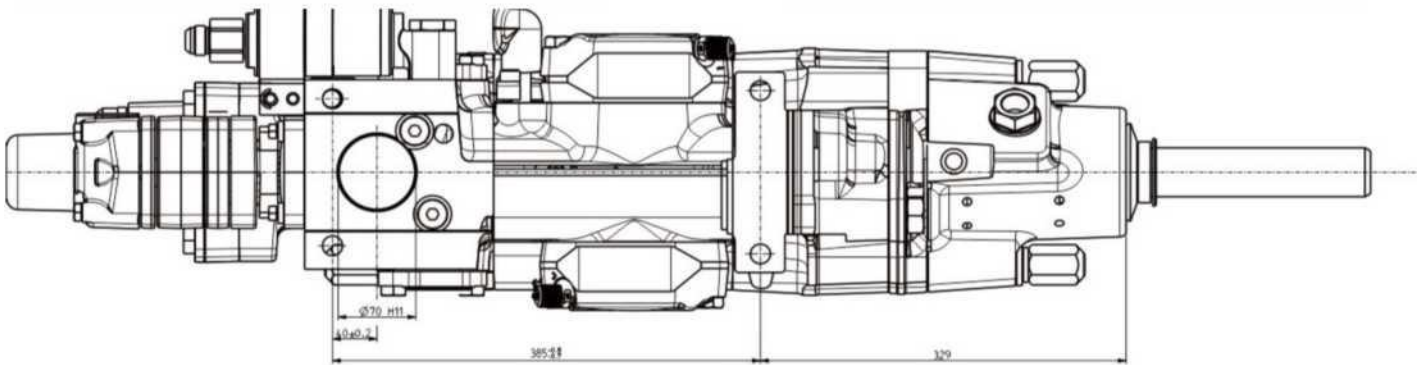
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**W10 (YYG-10/480 )液压凿岩机技术参数**

**W10(YYG-10/480) rock drill technical data**

项目(Item )	单位 (Unit)	技术参数值 (Technical data )
<b>Technical Parameter 参数</b>		
外形尺寸(不含钎尾) Overall dimension ( Without drill tail)	mm	800x226x200
重量(Weight)	Kg	103
中心高(Center height)	mm	114
钎尾(Shank)		R32/T38/R38
凿孔直径(Hole dia.)	mm	32-64
<b>冲击性能参数(Impact functions)</b>		
最大冲击功率(Max.impact power)	KW	10
进油压力(Oil inlet pressure)	Bar	160
冲击频率(Impact frequency)	Hz	47-53
流量(Flow)	L/min	62-68
冲击能(Impact energy)	J	135-160
<b>回转性能参数 (Rotation functions)</b>		
排量(Displacement)	CC	160
转速范围(Rotation speed)	Rpm	300
最大扭矩(Max.torq u e)	Nm	480
进油压力(Oil inlet pressure)	Bar	210



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流量(Flow)	L/min	48
其他参数 (Others)		
水压(Water pressure)	Bar	10-15
水流量(Water flow)	L/min	30-60
润滑气雾压力(Air lubrication pressure)	Bar	■ ■
润滑气对应流量( lubrication airflow)	L/S	4



### W13 液压凿岩机技术参数

### W13 rock drill technical data

项目(Item )	单位 (Unit)	技术参数值 (Technical data )
结构参数		
外形尺寸(不含钎尾) Overall dimension ( Without drill tail)	mm	813x 314 x 112
重量(不含钎尾)(Weight) (Without drill	Kg	104
中心高(Center height)	mm	89 ■
钎尾(Shank)		T38/R38/R32
凿孔直径(Hole dia.)	mm	45-76
冲击性能参数 (Impact functions)		



最大冲击功率(Max.impact power)	KW	13
进油压力(Oil inlet pressure)	Bar	150-230
冲击频率(Impact frequency)	Hz	45-62.5Hz
流量(Flow)	L/min	80-105
冲击能(Impact energy)	J	179-200
回转性能参数 (Rotation functions)		
排量(Displacement)	cm <sup>3</sup>	58.8
转速范围(Rotation speed)	Rpm	193
最大扭矩(M ax.t. r q u e)	Nm	385
进油压力(Oil inlet pressure)	Bar	140
流量(Flow)	L/min	
其他参数 (Others)		
水压(Water pressure)	Bar	12-20
水流量(Water flow)	L/min	30-60
润滑气雾压力(Air lubrication pressure)	Bar	3
润滑气对应流量(lubrication air flow)	cm <sup>3</sup> /mn	0.5



<b>W27 液压凿岩机技术参数</b> <b>W27 rock drill technical data</b>		
项目 (Item )	单位 (Unit)	技术参数值 (Technical data )
Technical Parameter 参数		



外形尺寸(不含钎尾) Overall dimension ( Without drill tail)	mm	1093 x332x 200.5
重量(不含钎尾)(Weight) (Without drill tail)	Kg	215
中心高(Center height)	mm	100.5
钎尾(Shank)		R38/T38/T45
凿孔直径(Hole dia.)	mm	51-89
冲击性能参数(Impact functions)		
最大冲击功率(Max.impact power)	KW	27
进油压力(Oil inlet pressure)	Bar	165-190
冲击频率(Impact frequency)	Hz	63-72
流量(Flow)	L/min	150-170
冲击能(Impact energy)	J	329-380
回转性能参数(Rotation functions)		
排量(Displacement)	cm <sup>3</sup>	80
转速范围(Rotation speed)	Rpm	0-292
最大扭矩(M ax.to rq u e)	Nm	671
进油压力(Oil inlet pressure)	Bar	210
流量(Flow)	L/min	35
其他参数(Others)		
水压(Water pressure)	Bar	20-30
水流量(Water flow)	L/min	90-130
润滑气雾压力(Air lubrication pressure)	Bar	3
润滑气对应流量 Rubrication air flow)	cm <sup>3</sup> /mn	0.7



## 2550 ( YYG-25/1550 )液压凿岩机技术参数

### 2550(YYG-25/1550) rock drill technical data

项目(Item )	单位(Unit)	技术参数值(Technical data )
结构参数(Structure:		
外形尺寸(不含钎尾) Overall dimension ( Without drill tail)	mm	1088x318x235
重量(含钎尾)(Weight)	Kg	195
中心高(Center height)	mm	88
钎尾(Shank)		T45/T51
凿孔直径(Hole dia.)	mm	76-115
冲击性能参数(Impact functions)		
最大冲击功率(Max.impact power)	KW	24
进油压力(Oil inlet pressure)	Bar	230
冲击频率(Impact frequency)	Hz	44
流量(Flow)	L/min	105
冲击能(Impact energy)	J	450
回转性能参数(Rotation functions)		
排量(Displacement)	CC	250
转速范围(Rotation speed)	Rpm	0-135
最大扭矩(M ax.torq u e)	Nm	1550
进油压力(Oil inlet pressure)	Bar	200
流量(Flow)	L/min	75



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水压(Water pressure)	Bar	20
水流量(Water flow)	L/min	55-120
润滑气雾压力(Air lubrication pressure)	Bar	3

<b>2560 液压凿岩机技术参数</b> <b>2560 rock drill technical data</b>		
项目 (Item )	单位 (Unit)	技术参数值 (Technical data )
结构参数		
外形尺寸 (不含钎尾) Overall dimension ( Without drill tail)	mm	1340x318x257
重量(Weight)	Kg	195
中心高(Center height)	mm	88
钎尾(Shank)		T51/T60
凿孔直径(Hole dia.)	mm	76-115
冲击性能参数(Impact functions)		
最大冲击功率(Max.impact power)	KW	25
进油压力(Oil inlet pressure)	Bar	230
冲击频率(Impact frequency)	Hz	42-50
流量(Flow)	L/min	105
冲击能(Impact energy)	J	560
回转性能参数 (Rotation functions)		
排量(Displacement)	CC	250
转速范围(Rotation speed)	Rpm	0-135
最大扭矩 (M ax.to rq ue)	Nm	1550
进油压力(Oil inlet pressure)	Bar	200
流量(Flow)	L/min	75
其他参数(Others)		
水压(Water pressure)	Bar	■
水流量(Water flow)	L/min	55-120
润滑气雾压力(Air lubrication pressure)	Bar	3
润滑气对应流量(lubrication air flow)	L/S	5



**2238 液压凿岩机技术参数**  
**2238 rock drill technical data**

项目(Item )	单位(Unit)	技术参数值(Technical data )
结构参数(Structure;		
外形尺寸(不含钎尾) Overall dimension ( Without drill tail)	mm	1008x251x223
重量(Weight)	Kg	170
中心高(Center height)	mm	■ 88 ■
钎尾(Shank)		T38/T45
凿孔直径(Hole dia.)	mm	33-76
冲击性能参数(Impact functions)		
最大冲击功率(Max.impact power)	KW	22
进油压力(Oil inlet pressure)	Bar	250
冲击频率(Impact frequency)	Hz	■ 73 ■
流量(Flow)	L/min	83-93
冲击能(Impact energy)	J	300
回转性能参数 (Rotation functions)		
排量(Displacement)	CC	160
转速范围(Rotation speed)	Rpm	0-215
最大扭矩 (M ax.to rq u e)	Nm	■ 1000 ■
进油压力(Oil inlet pressure)	Bar	210





流量(Flow)	L/min	75
其他参数(Others)		
水压(Water pressure)	Bar	■ 25 ■
水流量(Water flow)	L/min	50-120
润滑气雾压力(Air lubrication pressure)	Bar	■ 2 ■
润滑气对应流量(lubrication air flow)	L/S	5



**1838HD+液压凿岩机技术参数**  
**1838HD+ rock drill technical data**

项目(Item)	单位(Unit)	技术参数值(Technical data)
结构参数(Structure)		
夕卜形尺寸(含钎尾) Overall dimension (include shank)	mm	1008x251x223
重量(Weight)	Kg	175
中心高(Center height)	mm	■ 88 ■
钎尾(Shank)		T38
凿孔直径(Hole dia.)	mm	38-64
冲击性能参数(Impact functions)		
最大冲击功率(Max.impact power)	KW	18
进油压力(Oil inlet pressure)	Bar	230



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冲击频率(Impact frequency)	Hz	■	60	■
流量(Flow)	L/min		75-92	
冲击能(Impact energy)	J		300	
回转性能参数(Rotation functions)				
排量(Displacement)	CC		160	
转速范围(Rotation speed)	Rpm		0-215	
最大扭矩 (M ax.to rq u e)	Nm	.	1000	■
进油压力(Oil inlet pressure)	Bar		210	
流量(Flow)	L/min		75	
其他参数(Others)				
水压(Water pressure)	Bar		25	
水流量(Water flow)	L/min		55-120	
润滑气雾压力(Air lubrication pressure)	Bar	■	■	
润滑气对应流量 Rubrication air flow)	L/S		5	