

## ROTARY SWIVELS AND POWER SWIVELS

Rotary swivel represents the connecting equipment between the drilling string that rotates and the fixed part of the drilling mast ensuring:

- support of the drilling string during rotation;
- drilling fluid circulation.

The following types of rotary swivels are currently manufactured: CH-25; CH-80 and CH-100.

Power swivel represents the connecting equipment between the drilling string that rotates and the fixed part of the drilling mast ensuring:

- support of the drilling string during rotation;
- drilling fluid circulation;
- rotation of the drilling string.

Driving the swivel is achieved by means of a power pack.

The following types of rotary swivels are currently manufactured: CHM-50 and CHM-80.

Swivels and power swivels are designed according to the specification API 8C, quality level PSL1 and the following supplements: SR1, SR2, SR3, SR4, SR5.

Performance level is determined by additional requirements imposed on hydraulic heads only when specified in Client's order/contract and it may be, as appropriate, one or more of the following:

- a. SR1 – Testing the test load

*Remark: For swivels this test is mandatory even if it is not specified in Client's order/contract*

- b. SR2 – Low temperature
- c. SR3 – Technical record book
- d. SR4 – Volumetric non-destructive testing of castings
- e. SR5 – Volumetric non-destructive testing of forgings

*Remark: any additional requirements can be agreed upon between manufacturer and Client.*

The dimensions of the contact surfaces of the bail with the hook comply with API Spec. 8C.

Connecting thread size (stem, gooseneck) meet API Spec 7-1; API Spec 5B.

The quality and technical performance provide a safe operation of the swivel.

For power swivels motors separate power packs can be provided.

## ROTARY SWIVEL CH-25

### TECHNICAL DESCRIPTION

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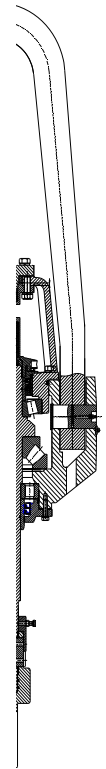
### TECHNICAL CHARACTERISTICS

- Maximum working load.....25 to
- Maximum speed.....300 rot/min
- Sub thread..... $3\frac{1}{2}$  REG LH ( $3\frac{1}{2}$  N left)
- Gooseneck thread.....TE1-70 ( $2\frac{7}{8}$  NU)
- Gooseneck angle..... $15^\circ$
- Maximum fluid pressure.....70 bar

## ROTARY SWIVEL CH-80

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### TECHNICAL CHARACTERISTICS

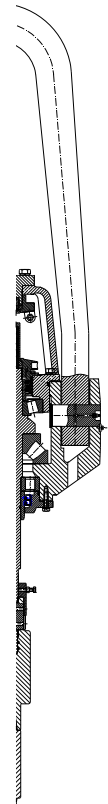
- Maximum working load.....80 tf
- Maximum speed .....300 rot/min
- Sub thread.....3 1/2" IF (NC38) right / left
- Gooseneck thread.....LP 2"
- Gooseneck angle.....15°
- Maximum fluid pressure.....210 bar
- Rotation.....right / left
- Transportation.....skid mounted

## ROTARY SWIVEL CH-100

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### TECHNICAL CHARACTERISTICS

- Maximum working load.....100 to
- Maximum speed.....200 rot/min
- Sub thread .....4 ½ “ REG, right / left
- Gooseneck thread.....LP 2”
- Gooseneck angle.....15°
- Maximum fluid pressure.....345 bar
- Rotation.....right / left
- Transport.....skid mounted

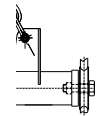
# POWER SWIVEL CHM-80

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## TECHNICAL CHARACTERISTICS

- Maximum working load.....800 kg
- Connection thread Kelly cock-string.....3 1/2 in IF right/left
- Gooseneck thread.....LP 2"
- Gooseneck angle.....15°
- Maximum fluid pressure.....340 bar
- Maximum torque.....800 kgm
- Speed at maximum torque.....90 rot/min
- Maximum speed.....140 rot/min
- Torque at maximum speed.....500 kgm
- Rotation.....right/left
- Maximum fluid pressure in hydraulic system.....290 bar
- Flow in in hydraulic system.....280/min

## POWER SWIVEL CHM-50

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### TECHNICAL CHARACTERISTICS

- Maximum work load.....50 to
- Connection thread to string.....4 1/2 REG right/left
- Gooseneck thread.....LP 2 7/8"
- Gooseneck angle.....15°
- Maximum fluid pressure.....140 bar
- Maximum torque.....400 kgm
- Speed at maximum torque.....60 rot/min
- Maximum speed.....120 rot/min
- Torque at maximum speed.....200 kgm
- Rotation.....right/left
- Maximum fluid pressure in hydraulic system.....150 bar
- Flow in hydraulic system.....200/min

**SUMMARY OF TECHNICAL CHARACTERISTICS**

Description		Rotary swivel			Power swivel	
		CH 25	CH 80	CH100	CHM50	CHM 80
Maximum working load	to	25	80	100	50	80
Connection thread with drilling string	-	3 1/2" REG LH	3 1/2" IF	4 1/2" REG	4 1/2 REG	3 1/2 in IF
Gooseneck connection thread	-	TE1-70 (2 7/8 NU)	2" LP	2" LP	2 7/8" LP	2"LP
Maximum fluid pressure	bar	70	210	345	140	340
Maximum speed	rot/min	300	300	200	120	140
Torque at maximum speed	kgm	-	-	-	400	500
Maximum torque	kgm	-	-	-	400	800
Speed at maximum torque	rot/min	-	-	-	60	90
Maximum fluid pressure in hydraulic system	bar	-	-	-	150	290
Flow in hydraulic system	l/min	-	-	-	200	280
Rotation	-	left	right/left	right/left	right/left	right/left