



ROV Operated Tool Changer

Type 91604



ROV Operated Tool Changer



Introduction:

The ROV operated Tool Changer was born out of the need to substantially reduce subsea ROV costs by having a reliable method of connecting to subsea tools on the seabed without the need to return to the surface to change tools. The tool changer allows the ROV to select and connect with a subsea tool and simultaneously connecting to four hydraulic lines for power and control of the tool without compromising the ROV hydraulic system. Innovative design and manufacturing technique took this concept through to a fully developed product to meet the demanding design requirements. A comprehensive qualification program was carried out, including hyperbaric, robustness and reliability testing for service in its intended environment before the tool changer accomplished the first successful campaign in 2016. The flexibility of the design gives further opportunities also, where quick temporary connections are required (e.g. intervention).

Tool Changer Features:

- •2 x hydraulic locking & unlocking
- •4 x hydraulic elements for tool power and control
- Compact and robust design (high impact resistant)
- Zero leak clean break elements minimizing environmental impact and ingress of sea-water
- •Visual aid to support ROV Operator
- •Minimum possible quantity of 100 make and breaks before service
- •Good alignment to assist with connection and disconnection
- · Easy to maintain and service
- · Full product support from Walther
- · Mechanical safety release (optional)
- · Cost saving for operator
- The ROV operated Tool Changer has significant benefits and revolutionizes the way tools are used subsea giving both significant operational benefits and cost savings.

Technical Information:

2-byd/4ullinythratuliandinesio207 bar / 3,000 psi • Hydraulic elements for tool power:2 x 3/8" hydraulic lines 345 bar / 5,000 psi 2 x 1/2" hydraulic lines 345 bar / 5,000 psi (690 / 1,035 bar and higher pressure couplers are possible)

Hydraulic lines to be pressure balanced when engaged / disengaged

Operating depth: 5,000 m
Operating temperature: -40C° to 60 °C
Weight ROV side (female half): 18.4 kg
Weight tool side (male half): 5.4 kg

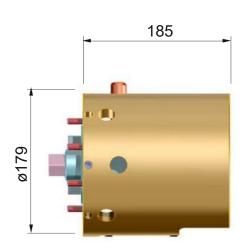
Max lifting weight: 250 kg (without buoyancy)
ROV interface: D-Bar Handle or customer design

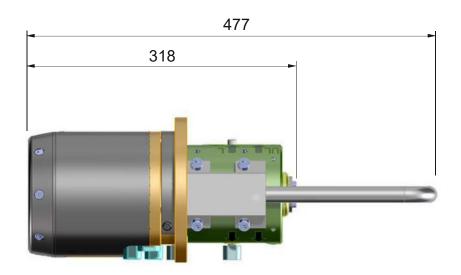
Materials: Stainless steel 1.4404 (316L) / Nitronic 50 /

Hiduron

• Seals: FFKM, FKM, NBR







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Туре	Element size	Quantity	Feature	Working pressure	Cv
CD-006	3/8" (NB 6 mm)	2	Clean Break	345 bar / 5,000 psi	1
CD-010	1/2" (NB 10 mm)	2	Clean Break	345 bar / 5,000 psi	3.5

Clean Break Technology

To allow multiple tool connections without sea water ingress into the hydraulic system and to meet future legislation which will ban fluid loss from subsea equipment into the environment.

Accordingly WALTHER has designed a new compact hydraulic clean break element with zero leakage for the required working pressure and flow.

A modular design allows to vary the population / working-pressure of the tool changer elements, according to customer specification.



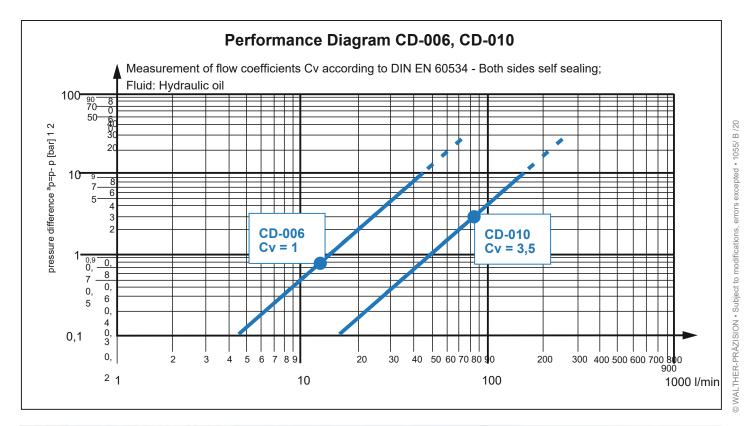


Tool side

ROV side

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WALTHER-PRÄZISION Carl Kurt Walther GmbH & Co. KG

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