

SKIDDING SYSTEM

**THE WORLD... OUR PASSION
SINCE 1955**

TECHNICAL BROCHURE

Fagioli high performance skid system is designed to self load and move items horizontally from one location to another. Steel structure of the skid system is composed by a Main Body and two "double boogie" Floating Shoes (to overcome possible gaps and misalignment) in such a way the shoes can negotiate track crown +/- 2°. The floating shoes are provided with stainless steel at the bottom and they can slide onto the skid tracks, which are provided with teflon pads. Fagioli developed a skid system with skid shoes capacity of 1000 ton each with the possibility to couple 2 skid shoes for a total of 2000 ton capacity

SKID SHOES 1000 T (X2) CAPACITY

DESIGN CRITERIA

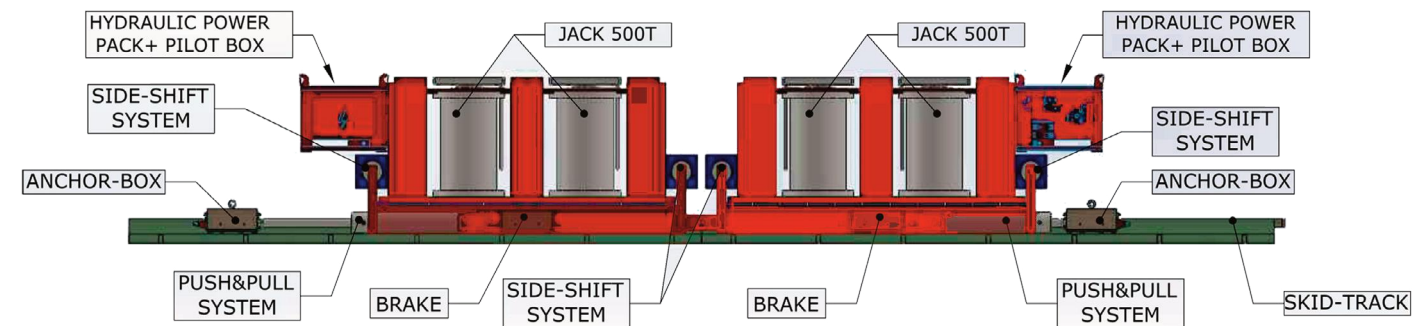
The skid shoes system with capacity of 1000 t (coupled up to 2000 t) has the following design criteria

GEOMETRY

- The skid shoe is composed by two sections, hinged together.
- The upper frame is free to slide transversally with respect to the skid base +/- 50mm.

WEATHER CONDITIONS

- Working temperature range: from -20°C to + 50°C (air temperature).
- Altitude range: from 0 m to 4.000 m above sea level.
- Humidity: from 10% to 100% RH and mist conditions.
- The system is also designed for marine environment.

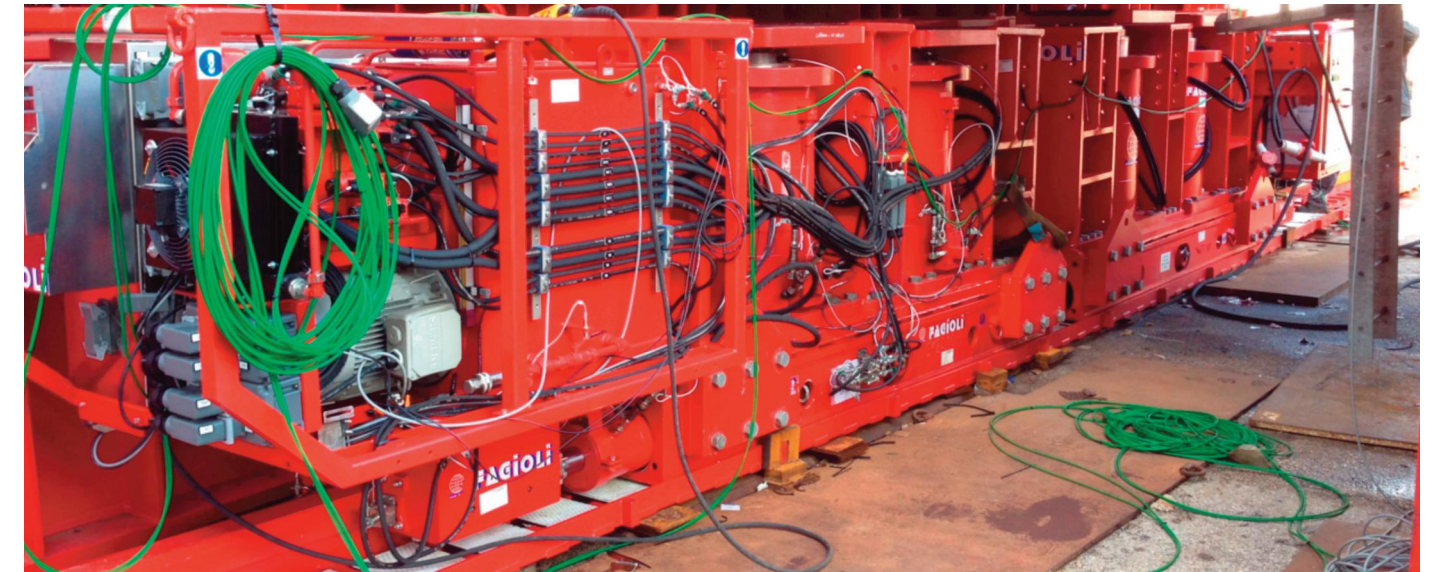


CAPACITY LOADS

- Minimum skid shoe allowable lifting capacity SWL = 1000 t (coupled up to 2000 t).
- The skid shoe is equipped with n. 2 jacks minimum capacity 500t and stroke 600 mm. Fitted with an anti-rotation device and a "Stroke encoder" with a SSI digital interface.
- The skid shoe is equipped with n. 2 push – pull units.
- Push – pull unit (composed of two jacks hydraulically linked and one anchor block) has a minimum pushing capacity of 150t and a minimum pulling capacity of 110t. Minimum strength to lateral force: 5% of the lifting force at 80% of the stroke. Minimum working Stroke: 750 mm.
- Jack for anchor block. There are four "Mini Jacks" on the Anchor box of each skid shoe section. The function of these jacks is to disengage the wedges, which provide the clamping mechanism of the anchor block.
- Minimum force of 1.4 t. Minimum Stroke 30 mm.

SAFE BREAK SYSTEM

- Safe break system minimum capacity of 64 t (for each skid shoe).
- The skid shoe is designed to withstand a horizontal longitudinal load $H1 = 0.10 \times 2000t$, applied at the top of main jacks (extended at 80% of stroke).
- The skid shoe is designed to withstand a horizontal transverse load $H2 = 0.05 \times 2000 t$, applied at the top of main jacks (extended at 80% of stroke).
- Max. working pressure main cylinders: 315 bar.



CONTROL SYSTEM

- The Power Pack Unit provides adequate pressure and flow rate in order to reach a maximum skidding speed of 20 m/h for the whole system of 64 skid shoes.
- Vertical load control with tolerance +/- 5% (with respect to the preset values).
- Longitudinal / Transverse movement: maximum difference between skid shoes 20mm.
- Vertical movement:
- The control system is designed for the management of max. n.° 64 skid shoes (1000 ton each), providing high standard of synchronization among the skid shoes both for lifting and skidding.
- Push – pull synchronization tolerance: maximum load between two skid shoe sections + - 20 t through the hinge connection.

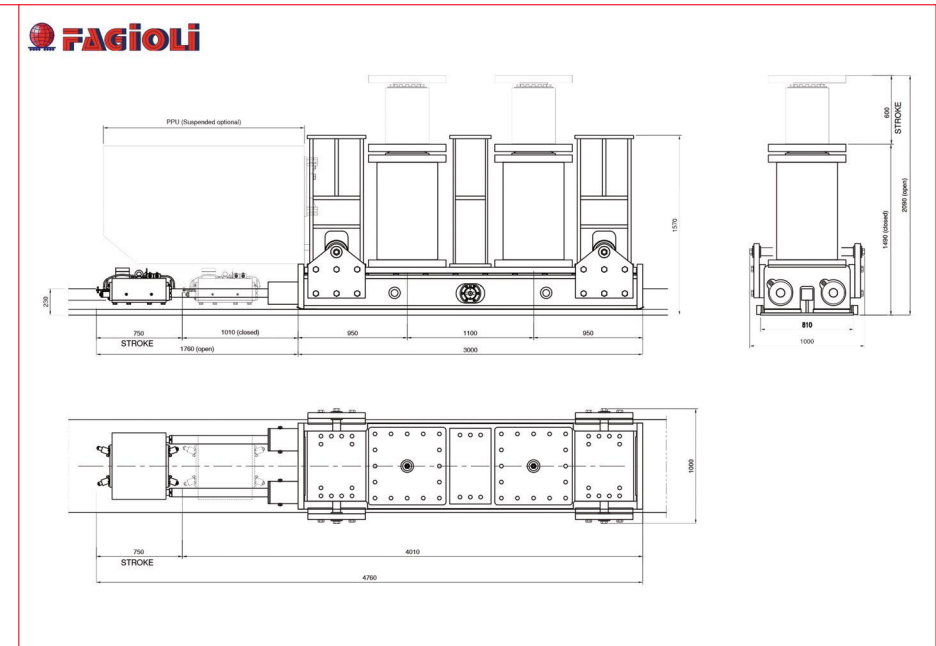
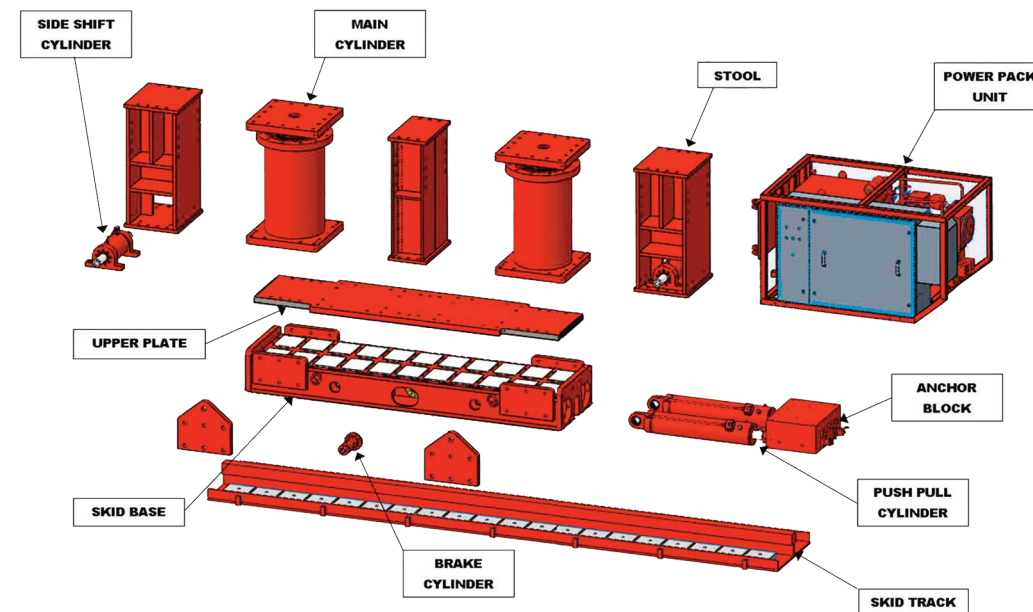
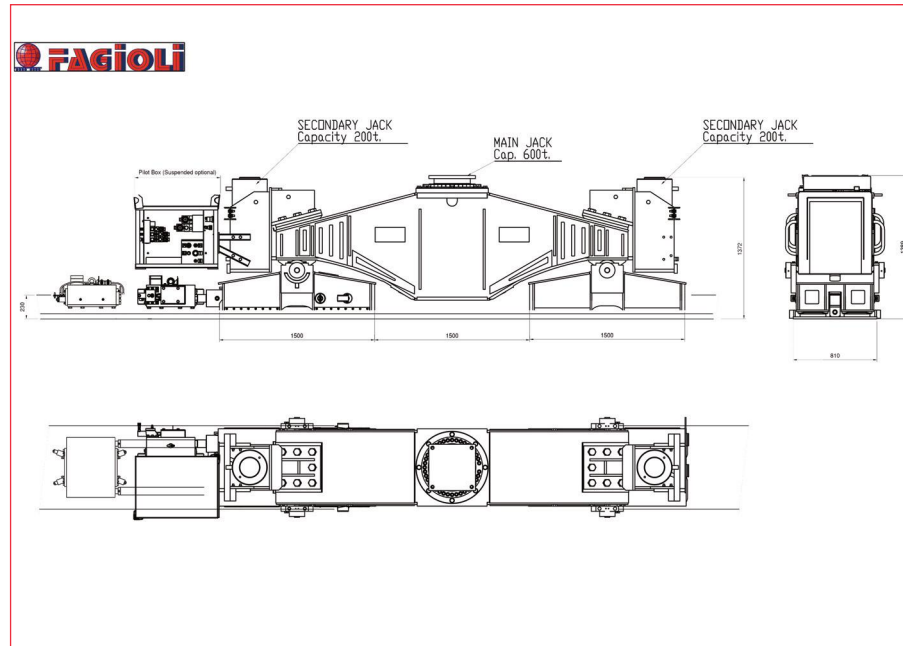


SKID SHOES SK.01 / SK.02 / SK.03 / SK.04 / SK.05 / SK.06 / SK.07 / SK.08 / SK.21 / SK.22

		SK.01	SK.02	SK.03	SK.04	SK.05	SK.06	SK.07	SK.08	SK.21	SK.22
SKID SHOES	CAPACITY (t)	1000	1000	1000	1000	1200	1200	1200	1200	600	1000
	BASE LENGTH (mm)	3000	3000	3000	2250	2900	2900	2900	2900	4500	4500
	HEIGHT WITHOUT LOAD CELL (mm)	1570	1490	1480	1250	810	1310	1325	1290	1389	1389
	HEIGHT WITH LOAD CELL (mm)	1570	1547	1497	1370	960	1460	1475	1410	N.A.	N.A.
	WIDTH (mm)	810	810	810	810	810	810	810	810	770	770
	OVERALL LENGTH (mm) (Push-pull retracted)	4010	4010	4010	4480	5150	5150	5150	5150	5510	5510
	OVERALL LENGTH (mm) (Push-pull extended)	4760	4760	4760	5230	5900	5900	5900	5900	6240	6240
	MAIN CYLINDERS	2 x 500 t	2 x 500 t	2 x 500 t	2 x 500 t	4 x 300 t	4 x 300 t	4 x 300 t	2 x 600 t	1 x 600 t	2 x 600 t 2 x 200 t
	STROKE (mm)	600	600	550	120	150	150	150	120	600	600
	LOAD CELLS	2 x 500 t	2 x 500 t	2 x 500 t	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
SIDE SHIFT	STROKE (mm)	± 70	± 100	± 100	N.A.	N.A.	N.A.	± 70	± 70	± 50	± 50
	CAPACITY (t)	102	102	102	N.A.	N.A.	N.A.	102	102	60	60
	CYLINDERS	2 x 51 t	2 x 51 t	2 x 51 t	N.A.	N.A.	N.A.	2 x 51 t	2 x 51 t	2 x 30 t	2 x 30 t
PUSH-PULL	PUSH CAPACITY (t)	150	150	150	110	110	110	110	110	110	110
	PULL CAPACITY (t)	110	110	110	80	80	80	80	80	80	80
	STROKE (mm)	750	750	750	750	750	750	750	750	730	730
	SKID SHOE WEIGHT (Kg) (CYLINDERS INCLUDED, WITH PPU)	11600	11600	11600	N.A.	N.A.	N.A.	N.A.	N.A.	8940 (Diesel PPU) 7280 (Electr. PPU)	8940
	SKID SHOE WEIGHT (Kg) (CYLINDERS INCLUDED, WITHOUT PPU)	10800	10800	10800	4870	4420	6035	7430	6365	6600	6600

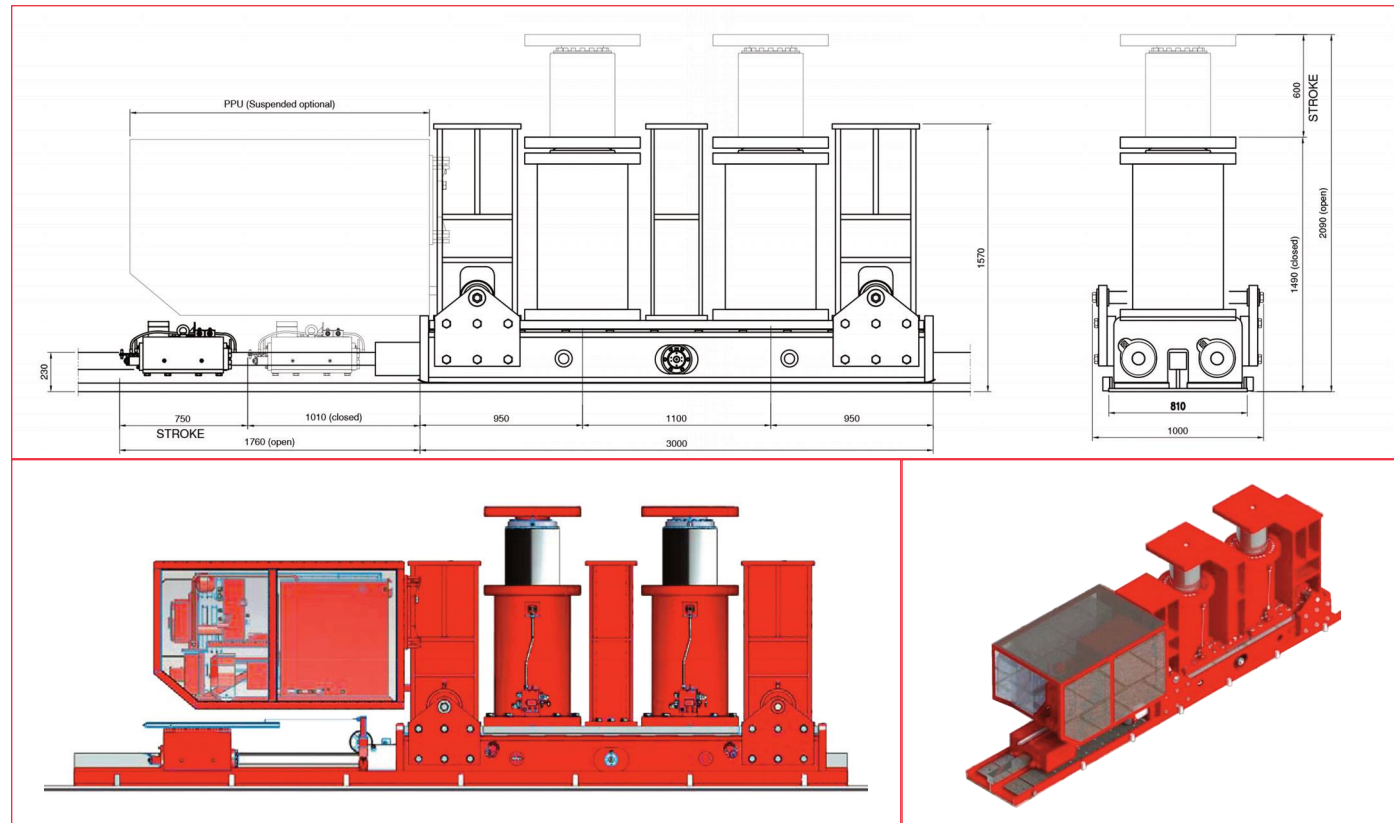
HINGED TYPE - 600 / 1000 T (600 + 2 x 200) CAPACITY

OPEN BODY TYPE - 1000 / 1200 T CAPACITY



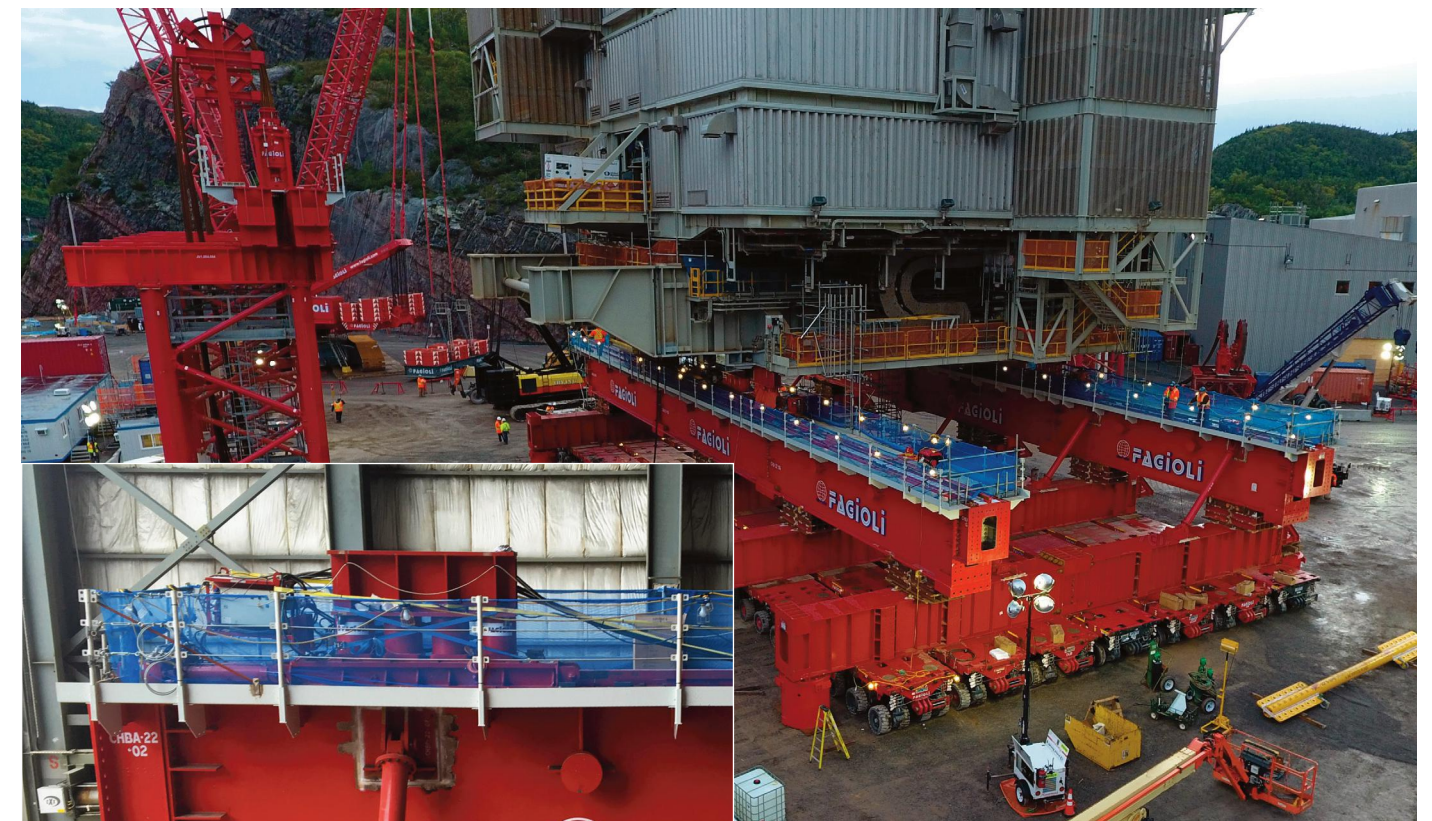
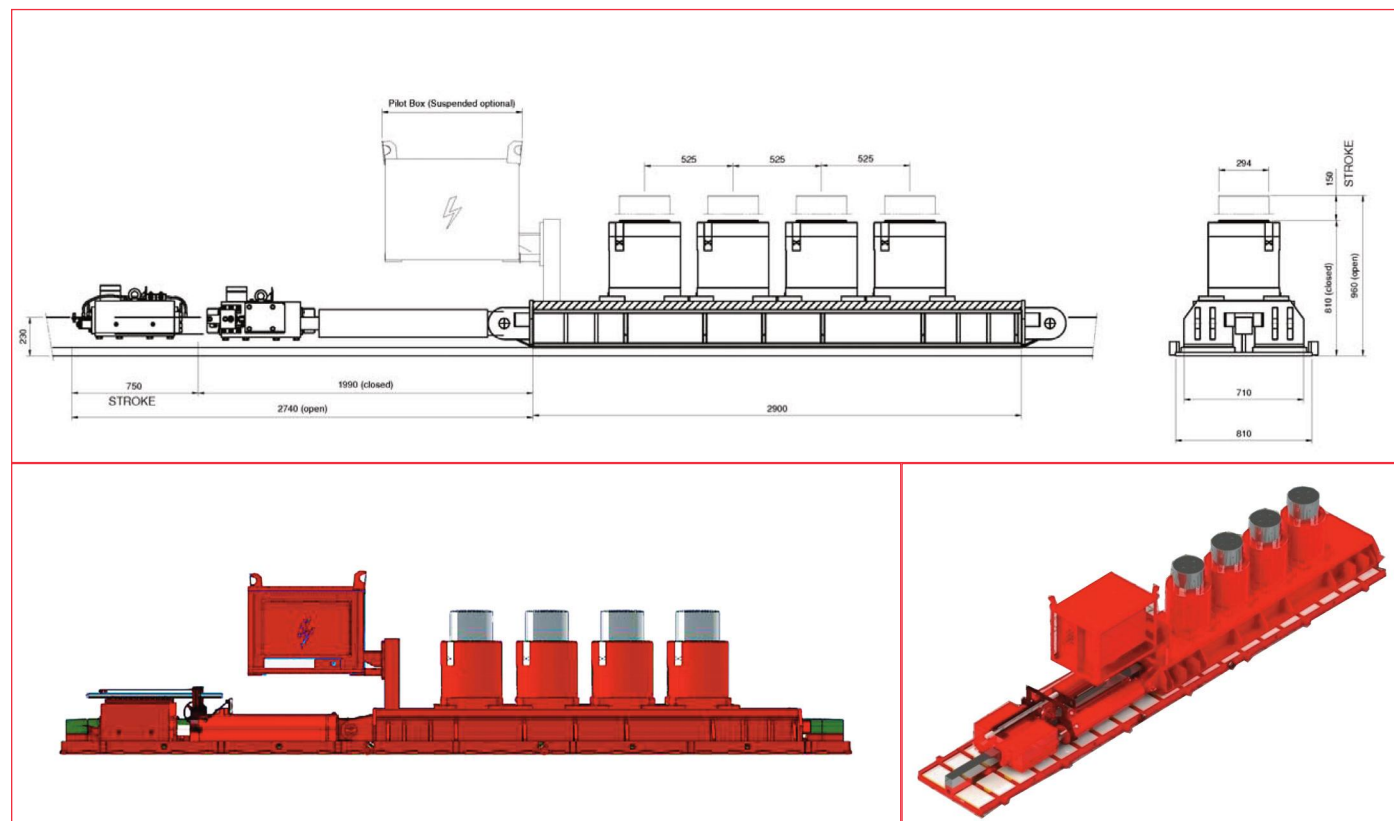
SK.01 - SK.02 - SK.03

SK.01 * For SK.02 and SK.03 technical specifications please refer to Technical Data Sheet on page 04 -05



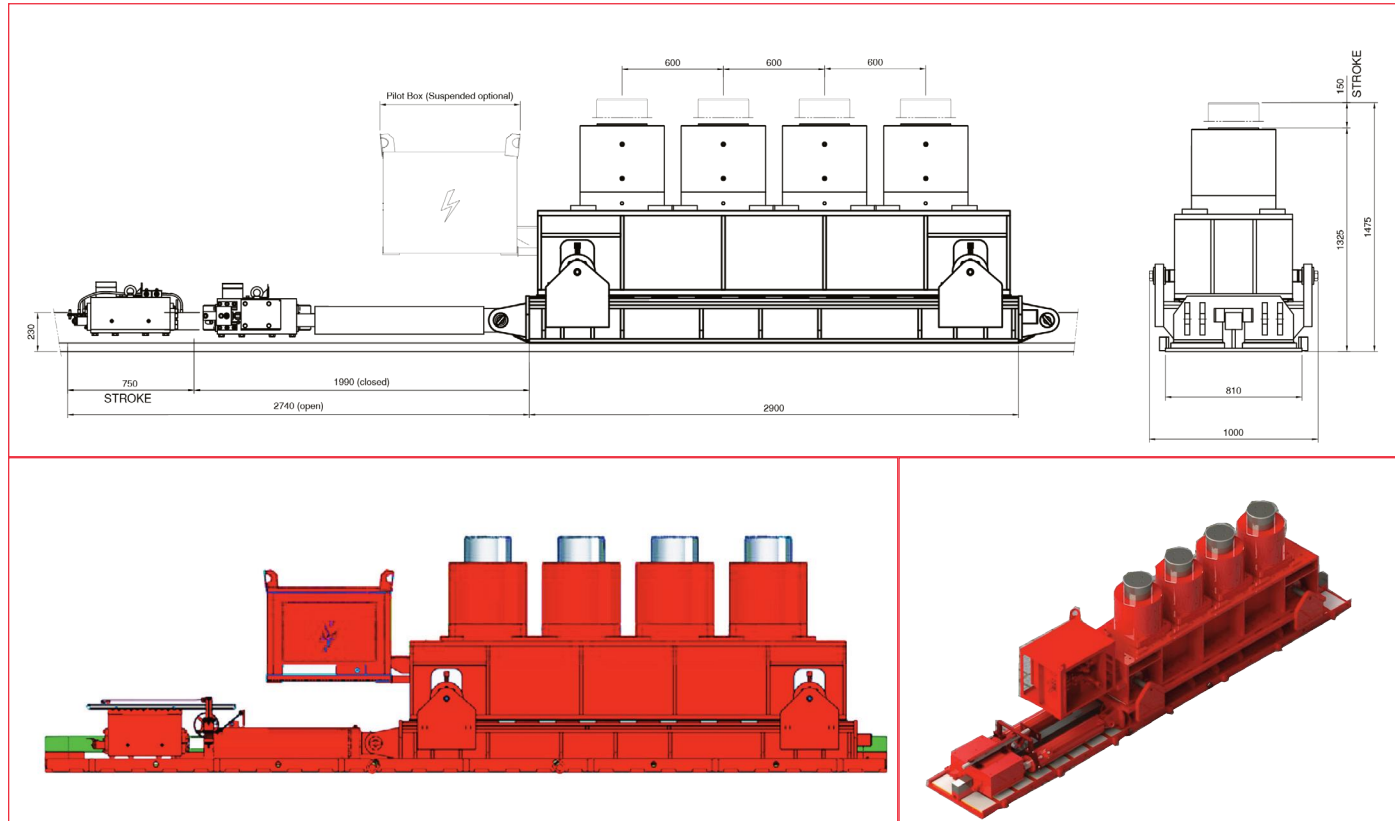
SK.04 - SK.05 - SK.06

SK.05 * For SK.04 and SK.06 technical specifications, please refer to Technical Data Sheet on page 04 -05



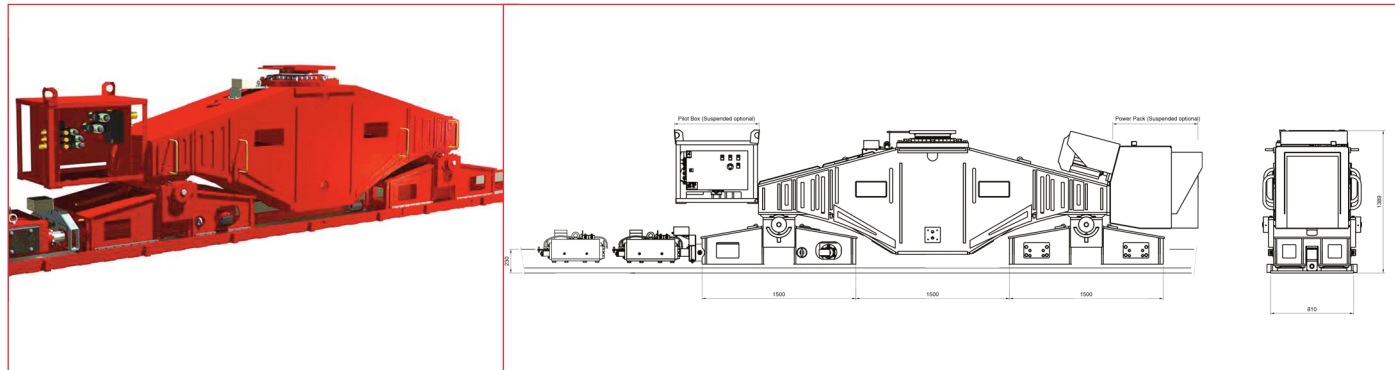
SK.07 - SK.08

SK.07 * For SK.08 technical specifications, please refer to Technical Data Sheet on page 04 -05

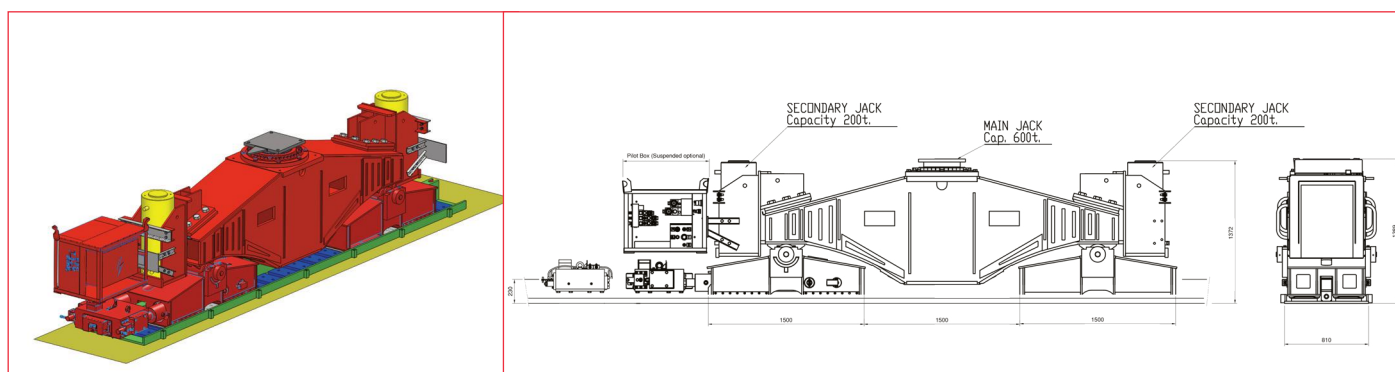


SK.21 - SK.22

SK.21



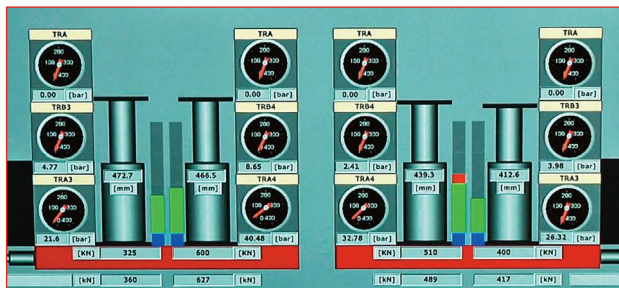
SK.22



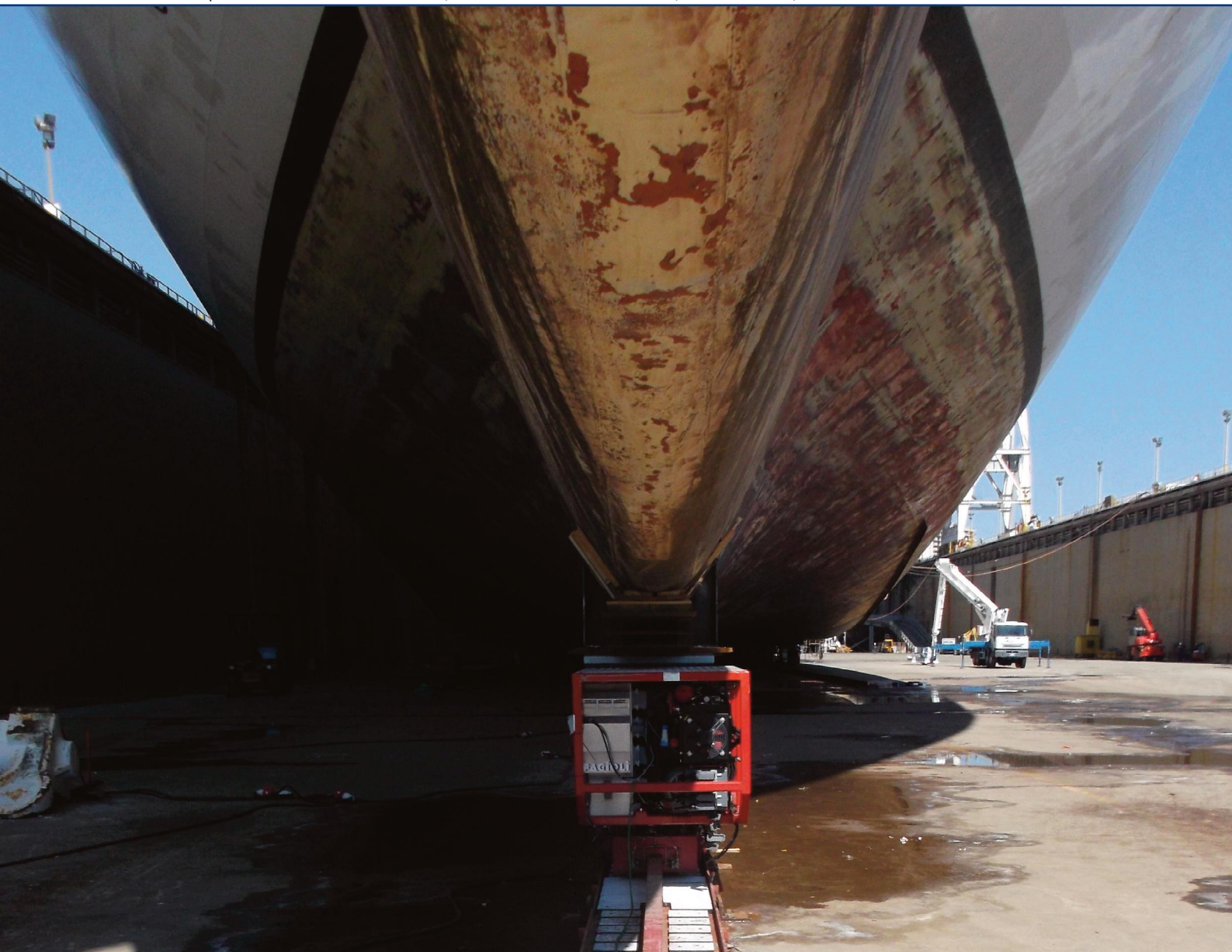
SKID SHOES - CONTROL SYSTEM

Each skid shoes is equipped with a pilot box (which contains hydraulic valves, connections, etc...) where the following data are collected:

- Main cylinder pressure (load)
- Main cylinder stroke
- Push/pull cylinder pressure (load)
- Push/pull cylinder stroke
- Side shift system



All these data are addressed to the computer system in order to control and monitoring the general behaviour of the skid system. The SCC (Smart Control Cylinder) software is able to control up to No. 64 Skid Shoes simultaneously, sending the information to Pilot Boxes. The software can control pressure (load), vertical and horizontal displacement for each skid, actual C.o.G. situation, ram stroke, etc...



FAGIOLI
VIA FERRARIS, 13 - 42049 S.ILARIO D'ENZA (RE)
PH+ 39 0522 6751
INFO@FAGIOLI.COM