COSC

ALL AROUND THE WORLD

SUZHOU COSC MARINE MACHINERY CO.,LTD

苏州考斯克船用机械有限公司

企业概况

苏州考斯克船用机械有限公司（简称COSC）是一个专业生产侧向推进器(CP及FP)、全回转舵桨（Rudder Propeller）和主推可调螺距螺旋桨（CPP）的生产厂家。公司引进国外先进技术和生产管理方式，以及及时完善的售后服务系统，赢得了国内外广大客户的高度评价。

侧向推进器分为可调螺距（CP）侧向推进器和固定螺距(FP)侧向推进器。原动机常用电动机，也可采用柴油机和液压马达驱动。

全回转舵桨通过操纵舵桨转舵机构使螺旋桨绕着垂直的中间立柱做360°任意方向回转，集推进和操舵功能于一体，能使船舶在任何方向都能获得最大的推力，可作船舶主、辅推进和动力定位。全回转舵桨有三种安装形式：艉机型、井座型和甲板机组型。原动机常用柴油机，也可采用电动机和液压马达驱动。

主推可调螺距螺旋桨是本公司的船用产品中的一个系列，自引进技术以来，生产的产品已在各种船舶上广泛应用，使船舶有较好的机动性能，操纵灵活，特别在多工况的船舶上使用效果突出。

船舶轴系，舵机，舵系成套产品是本公司船用产品中另一个系列。本公司承接轴（螺旋桨轴、中间轴）和舵系（舵杆、舵承、舵叶）等大型工体制造。

公司通过了ISO9001:2000质量体系认证，并且取得**中国CCS、法国BV、英国LR、德国GL、美国ABS、意大利RINA、挪威DNV、日本NK**等国内外船级社的认可。公司先进的技术力量，精良的员工队伍，竞争创新的意识，使我们的产品更加灵活的服务于顾客。现在我们的船用推进器已成功的装在各种船舶上，服务于广阔的海域，为航海事业作出我们的努力。

公司质量方针：质量第一，顾客至上。科技领先，持续改进。

SUZHOU COSC MARINE MACHINERY CO., LTD

COMPANY INTRODUCTION

Suzhou COSC Marine Machinery Co., Ltd. Is A Professional Production Lateral Thrusters, And The Rotary The Rudder Propeller And Main Adjustable Screw Pitch Propellers Manufacturer. The Company Introduces The Advanced Foreign Technology And Production Management Way, As Well As Timely Perfect After –sale Service System, Has Won The Domestic And Foreign Customers By The Highly. Lateral Thrusters Are Divided Into Adjustable Lateral Thrusters And Fixed Pitch

Lateral Thrusters, Prime Mover Pitch, Also Can Use Commonly Used Motor Diesel Engine And Hydraulic Pressure Motor Drive.

The Rotary The Rudder Propeller Through Manipulation The Rudder Propellers Ering Institutions Make Around The Middle Of The Propeller Vertical Columndoin Ga 360 Degree Turn In Any Direction, Set Forward, And The Rudder Functioning A Body, Can Make The Ship In Any Direction Can Obtain The Biggest Thrust, Can Make Ship Main, Auxiliary Power To Advance And Positioning. Turn The Rudder Propeller Have All Three Installation Forms: Stern Model, Well A Type And Deck Type Unit. Prime Mover Commonly Used Also Can Use The Motor And Diesel Hydraulic Mo Tor Drive.

Main Adjustable Screw Pitch Propellers Of The Company Is The Marine Products In A Series, Since The Imported Technology, The Production Of Products Has Since Is Widely Used In All Kinds Of Ships, Make The Ship Has Good Maneuverability, Manipulation, Especially In The More Flexible Working On Ships Use Effect Is Prominent.

Quality Policy: The Quality First, The Customer Is Supreme. Leading Technolo Gy And Continuous Improvement.

Cosc SUZHOU COSC MARINE MACHINERY CO.,LTD

企业荣誉 CORPORATION AWARDS

考斯克人艰苦卓越的拼搏
坚韧不拔的毅力
在林立的同行中
凭着真诚，广交朋友
独树一帜集思广益
编织传播信息的网络
横架沟通世界的桥梁
我们自豪的优质产品
有我们考斯克人的血汗在闪烁
考斯克人将
以诚为本，以信为基
以质量赢得用户的满意
以创新闯出自己的道路

COSC's hard working and striving
Hard-bitten willpowe
Among serried competitors
By empressement, make friends vastly
Develop a school of our own, drawon the wisdom of the masses
Knit a network of spreading information
Construct a bridge of communicating Across the world
We are proud because of high-quality products
Not only pro-ducts, but radiance of COSC's sweat and toil
COSC's further development will
Base on sincerity and base on trust
Win clients; satisfaction with our quality xiaoshan Internatinatito
And go our own way by innovation

COSC船舶推进系统相关产品
COSC Line-up of Products for Vessel Propulsion System

KS型：(KS type)

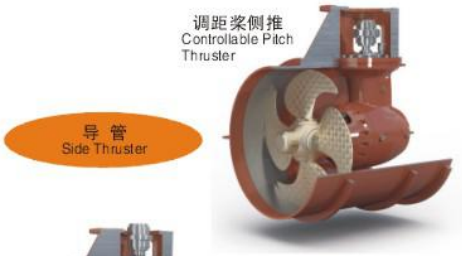
可变螺距螺旋桨
Controllable Pitch Propeller

便携控制
Joystick Control System

侧推遥控

驾控台
Control System

Se型：(Se type)



调距桨侧推
Controllable Pitch Thruster

导管
Side Thruster

固定桨侧推
Fixed Pitch Thruster

固定桨
Fixed Pitch Propeller

舵系
Rudder

轴系装置
Shafting Arrangement

Cosc

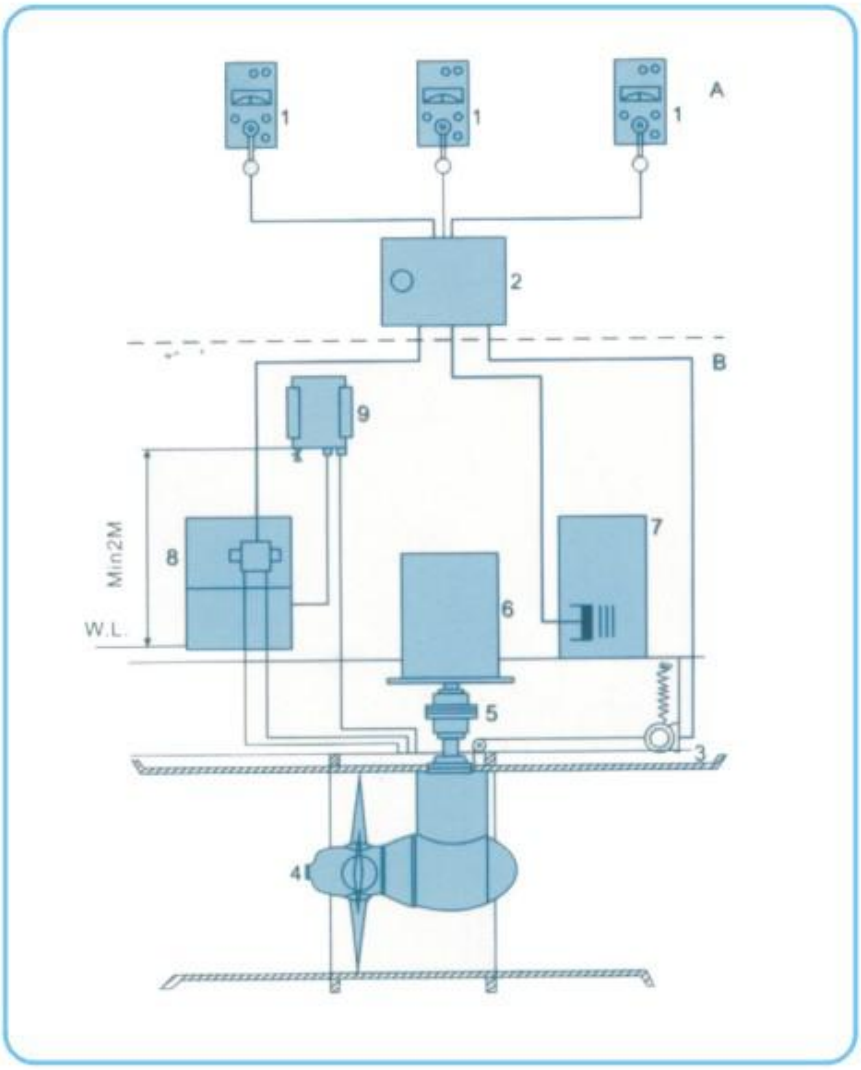
COSC SUZHOU COSC MARINE MACHINERY CO.,LTD

COSC-TUNNEL THRUSTERS-FP

定距桨侧向推进器

定距桨侧向推进器采用变频控制，零负荷启动

遥控系统意图 Remote control system

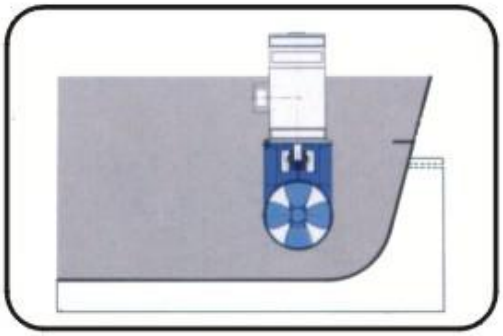


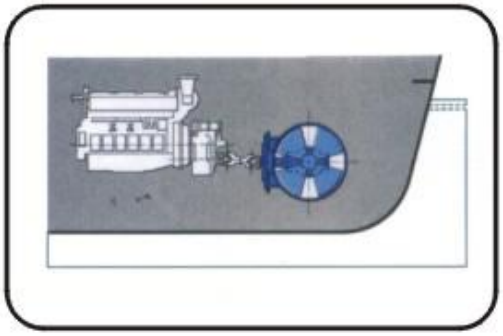
A.	驾驶室	A.Bridge
B.	侧推舱	B.Tunnel thruster compartment
1.	驾驶室控制装置	1.Bridge control panel
2.	中央控制装置	2.Central control panel
3.	反馈装置	3.Pitch transmitter
4.	侧推装置	4.Tunnel thruster unit
5.	联轴器	5.Flexible coupling
6.	驱动电动机	6.Drive motor
7.	电机启动器	7.Drive motor starter with built–in load sensing device
8.	液压装置	8.Hydraulic unit with electric pump and control valve
9.	重力油箱	9.Gravity tank

COSC定距桨侧向推进器（CTT）型系列										
型号	CTT010		CTT060		CTT110		CTT160		CTT170	
最高输入速度 min-1	1470	1170	1470	1170	1470	1170	1470	1170	1470	1170
频率 Hz	50	60	50	60	50	60	50	60	50	60
最大输入功率 KW/h.p.	63/86	50/68	125/170	100/136	200/272	200/272	280/380	280/380	420/570	336/457
最大推力(约) KN	9.5	7.9	17.5	14.5	28	28	42	42	63	51
标准筒体长度 mm	1000		1000		1000		1500		1500	
管壁厚度 mm	12		12		15		20		20	
螺旋桨直径 mm	500		630		800		1000/1100		1300	
重量 Kg	300		430		730		1450		1510	

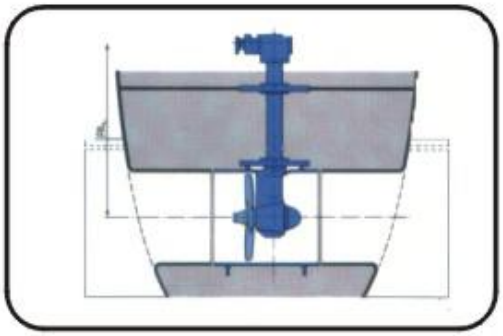
COSC定距桨侧向推进器（CTT）型系列						
型号	CTT300T		CTT550		CTT1010	
最高输入速度 min-1	1770	1470	1470	1170	1170	970
频率 Hz	60	50	50	60	60	50
最大输入功率 KW/h.p.	550/748	550/748	900/1224	725/986	1250/1700	1000/1360
最大推力(约) KN	72	72	125	110	183	155
标准筒体长度 mm	1500		2000		2500	
管壁厚度 mm	20		20		20	
螺旋桨直径 mm	1500		1750		2100	
重量 Kg	2450		2680		3200	

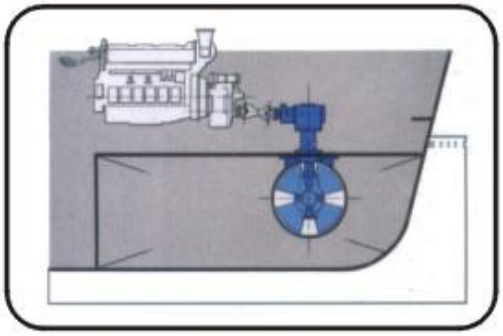
L型传动侧推L-Drive Tunnel Thrusters



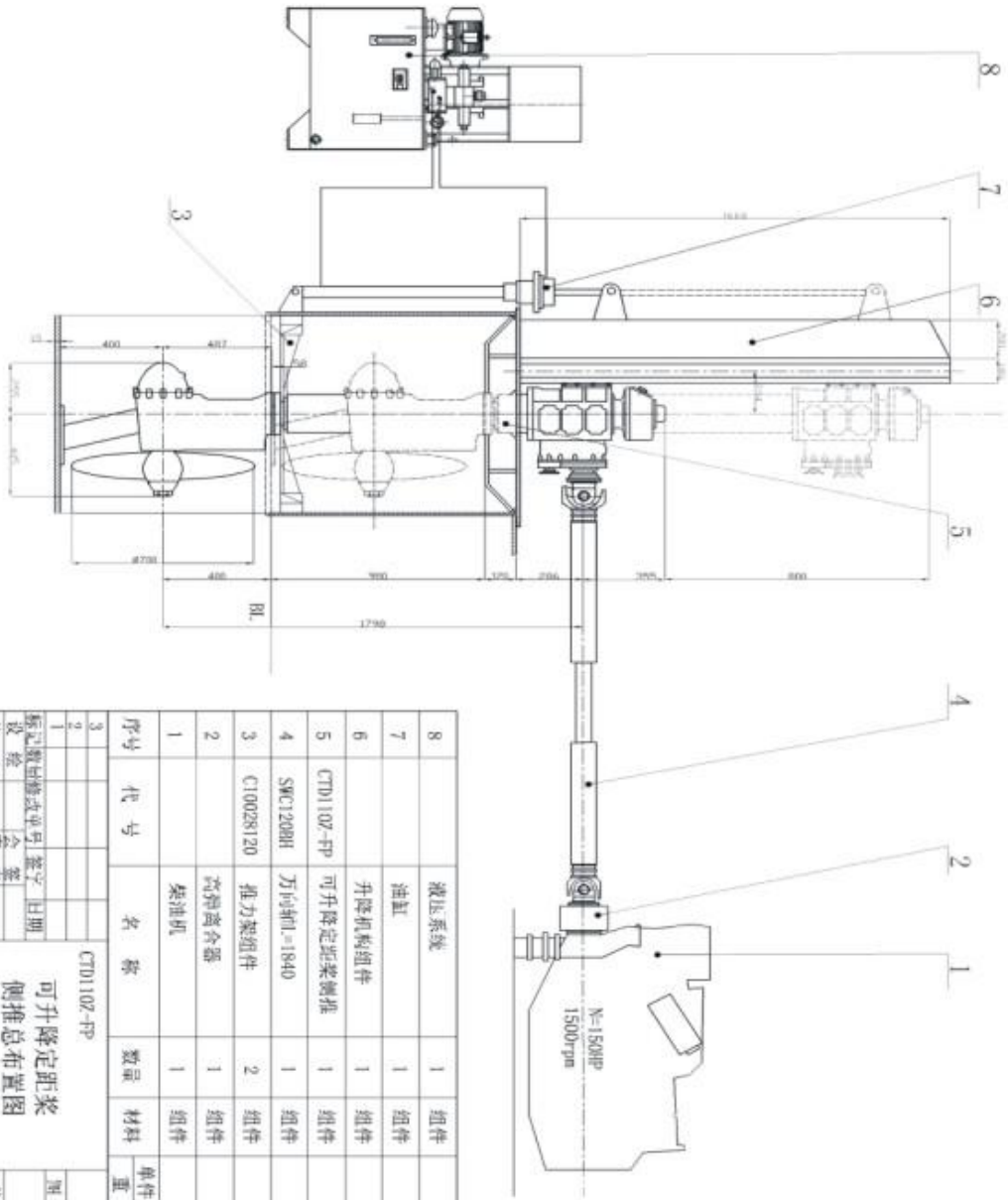


Z型传动侧推L-Drive Tunnel Thrusters





可升降型侧推总布置图



序号	代号	名称	数量	材料	单件	总计	备注
					重量(kg)		
8		液压系统	1	组件			外购
7		油缸	1	组件			外购
6		升降机构组件	1	组件			
5	CTD1107-FP	可升降定距桨侧推	1	组件			
4	SWC120BH	万向轴L=1840	1	组件			伸缩距离为80
3	C10028120	推力架组件	2	组件			
2		高弹离合器	1	组件			船厂提供
1		柴油机	1	组件			船厂提供

3					CTD1107-FP			
2					可升降定距桨			
1					侧推总布置图			
标记	数量	更改单号	签字	日期				
设计			会审	签定				
校对			审定					
检核			批准		规格	150HP	C3090420	
标审			日期				图法	重量 比例
							共 1 页	第 1 页

苏州考斯克船用机械有限公司

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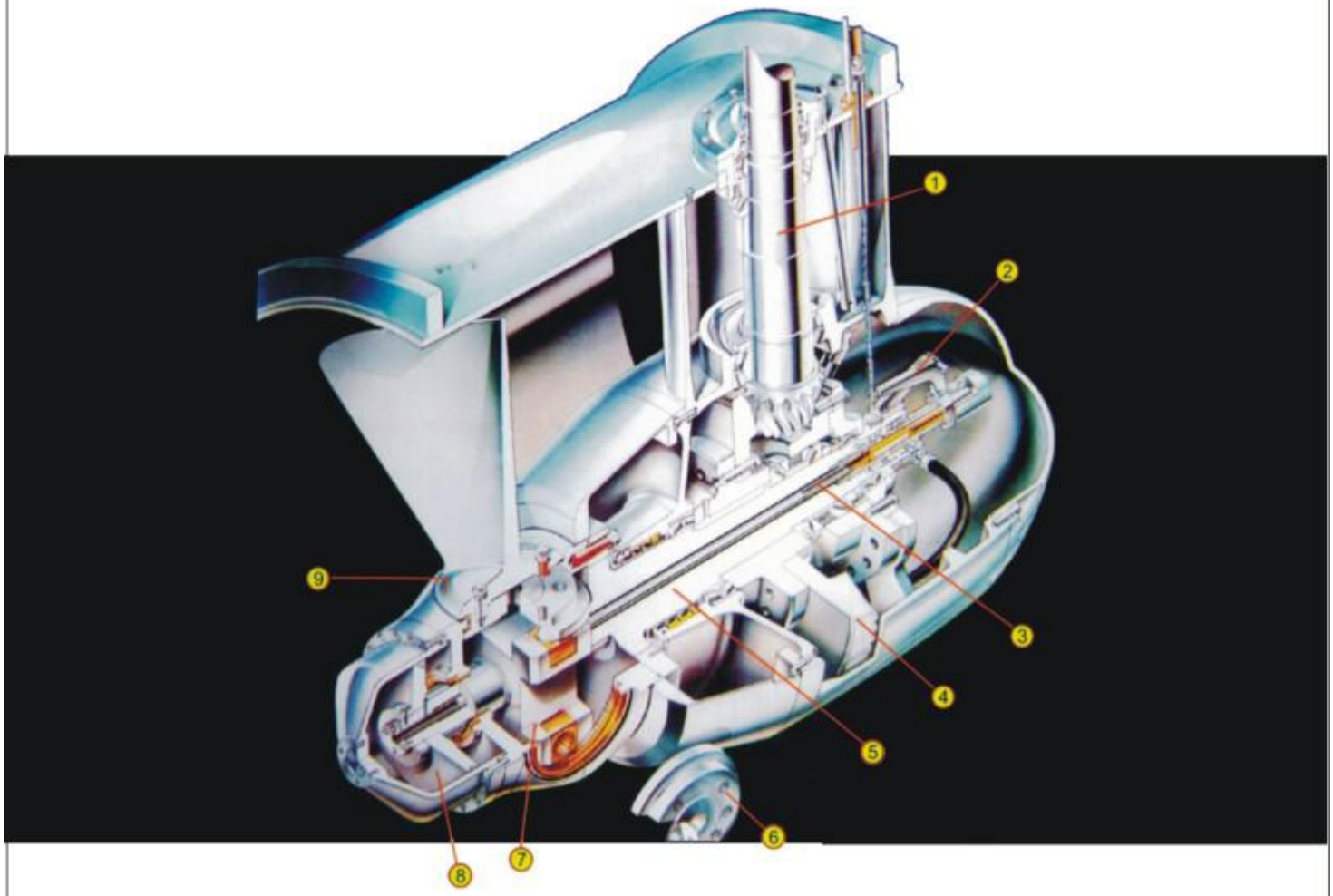
COSC-TUNNEL THRUSTERS-CP

可变螺距侧向推进器



1．驱动轴组件	Drive shaft assembly with bevel gear pinion
2．反馈组件	Mechanical feed back
3．配油管	Oil transmission pipe
4．螺伞齿轮	Bevel gear wheel
5．桨轴组件	Propeller shaft assembly
6．曲柄盘	Crank pin ring
7．转叶机构	Crosshead with sliding shose
8．变距活塞	Actuating piston
9．叶根密封件	Blade sealing

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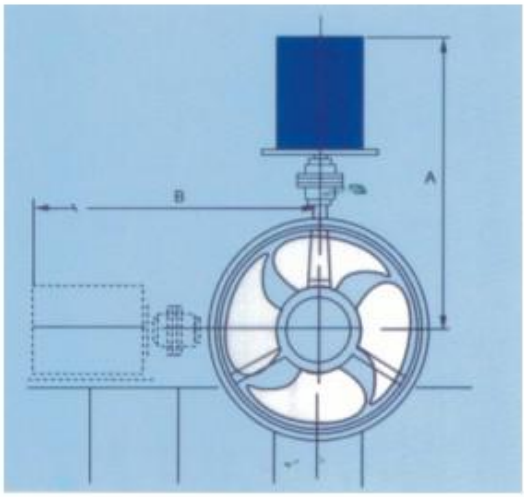
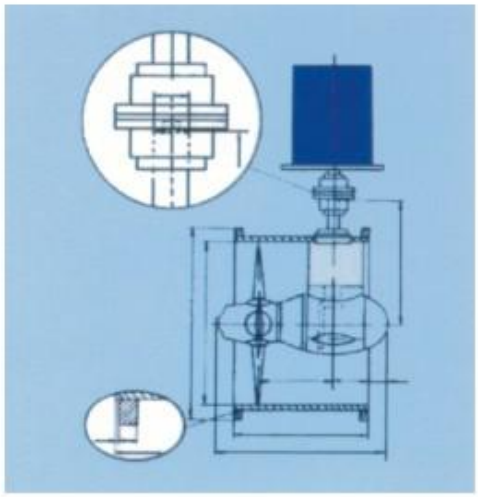




主要参数 CPP Tunnel Thrueter General data

桨叶直径 mm	功率 KW (max)	频率 HZ	输入转速 Rpm	额定扭矩*** Nm(max)	转动惯量* Kgm2	重量（大约）Kg	
						推进装置**	电机和齿轮箱
1100	-320	50	1450	160	1.2	1300	850
	-380	60	1750	220			
1300	-445	50	1450	340	1.9	2500	1300
	-480	60	1750	470			
1650	-590	50	1450	340	4.5	3700	2300
	-800	60	1750	500			
2000	-880	50	1450	840	11.3	6250	3300
	-1200	60	1190	570			
2400	-1580	50	980	2270	28.8	12500	4500
	1720	60	1190	3050			
2800	-2240	50	980	3935	65.0	20500	5000
	2010	60	880	3300			
3300	-3500	50	590	5600	358.0	31000	6000
	-3500	60	590	5600			

*对于输入轴 **不包括电机和齿轮箱 ***输入轴上100%转速时的扭矩

尺寸（mm）Dimensions

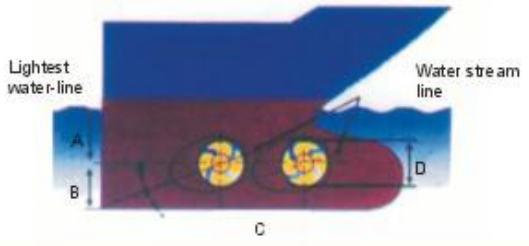
桨叶直径	a	c	d	e	g	h	i	l	k	j	m	n
1100	1120	1330	175	340	505	70	50	15	30	1045	1283	842
1300	1328	1538	190	345	615	80	50	15	30	1190	1470	933
1650	1680	1910	260	390	730	90	50	20	50	1390	1797	1145
2000	2026	2270	340	420	900	110	50	22	50	1680	2195	1395
2400	2430	2682	310	500	1080	140	50	26	50	1990	2532	1647
2800	2836	3206	395	620	1210	150	60	35	60	2280	2990	1930
3300	3340	3710	465	730	1425	175	60	35	70	2685	3530	2280

所有尺寸单位：mm

液压系统数据Data for hydraulic system

直径	变距时间	油泵功率（kw）		容积（升）	
		AC50	AC60	液压装置	全系统
1100	10	1.4	1.7	125	250
1300	12	1.4	1.7	125	300
1650	16	2.1	2.5	125	450
2000	20	2.8	3.4	125	650
2400	24	3.8	3.4	125	1300
2800	32	6.8	8.2	210	1500
3300	40	10.0	12.0	210	1800
全行程操纵时间					

A=Min.1.0xD
B=0.75xD to 1.0xD
D=Propeller diameter
C=As small is possible for Cpp Rec.2xD.Min.
1.5xD for FPP



功率选择 The power selecting

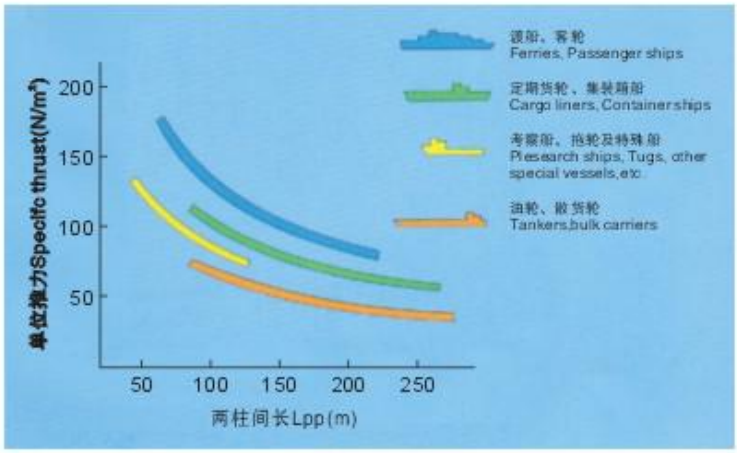
以下图表是根据我们以往经验编制的功率配备图表。单位推力是指水线以下船体长度方向每单位投影面积的推力。

当一些船舶要求有更快的机动性或更大的抗风能力时，单位推力可根据需要增加。

The following figure refers to the side thruster power and is based on our records, Soecifc thrust means thrust per unit of the submerged hull's longitudinal projected area.

In some vessels requiring tast tuming or receiving large wind force, Specific thrusr is to be increased as necessary.

系统测试 Bollard test at sea



可升降侧推产品展示区

COSC SUZHOU COSC MARINE MACHINERY CO.,LTD

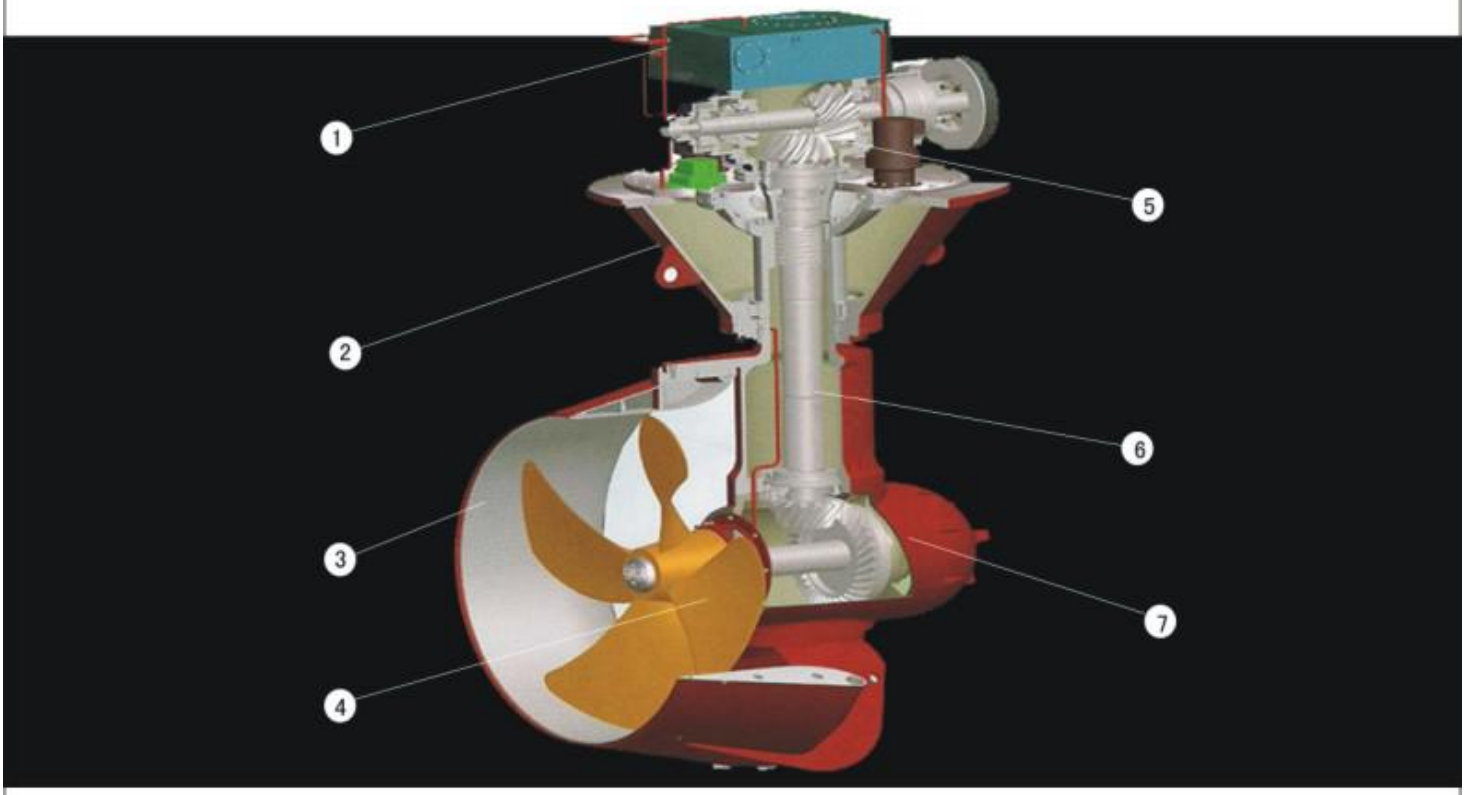
FP-CP Product Exhibit

定距桨-调距桨产品展示区

Cosc SUZHOU COSC MARINE MACHINERY CO.,LTD

COSC-RUDDER PROPELLER-FR

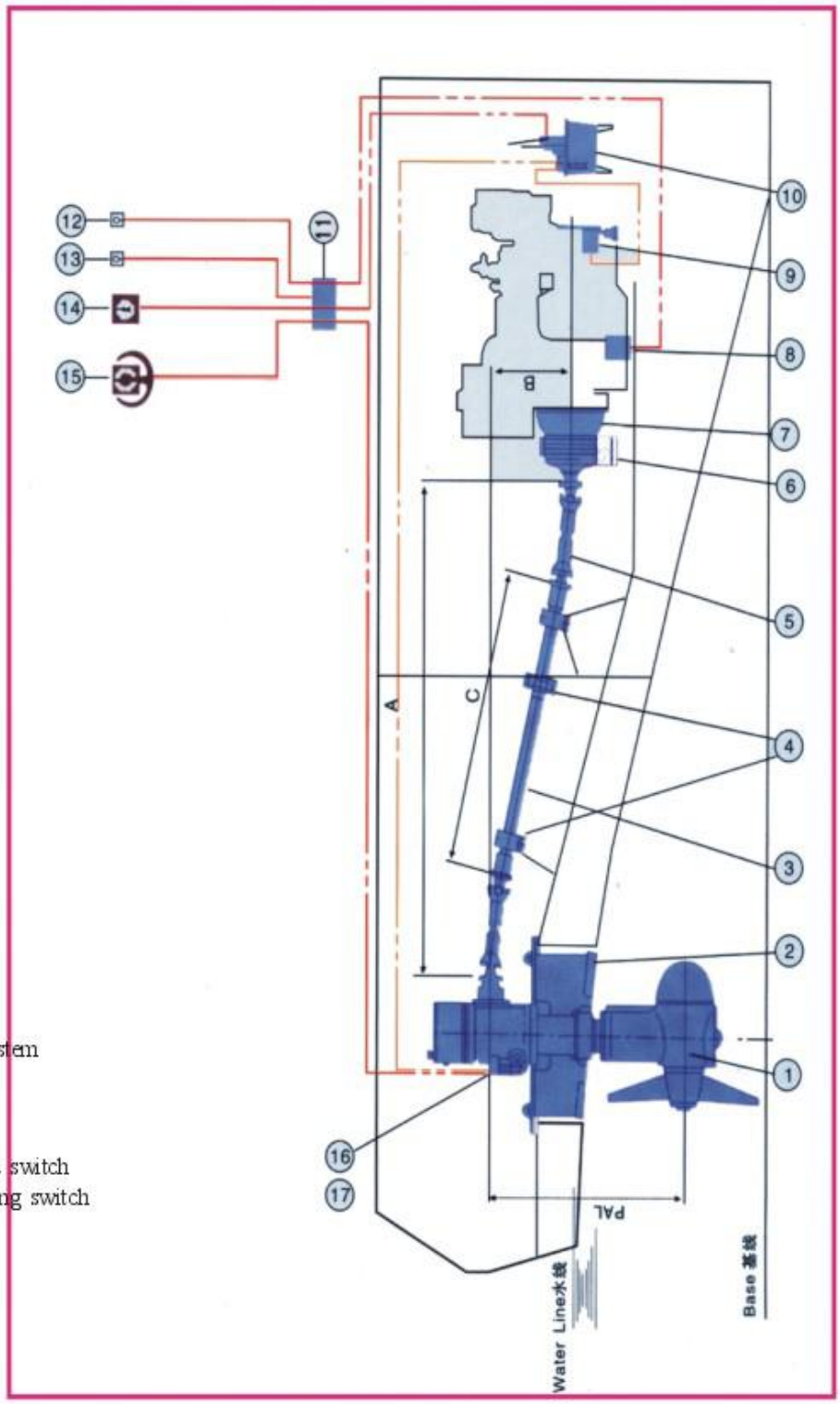
定距全回转舵桨



1. 油箱 OIL TANK
2. 井箱 WELL BOX
3. 导管 TUNNEL
4. 桨叶 PROPELLER BLADE
5. 上齿箱 UP GEAR BOX
6. 螺旋伞齿轮 BEVEL GEAR BOX
7. 下齿箱 LOW GEAR BOX

1、舵桨
2、井箱
3、中间轴
4、隔舱密封
5、万向轴
6、液压离合器
7、高弹性联轴节
8、主机转速控制器
9、机带油泵
10、液压系统
11、电气控制开关
12、应急转速控制开关
13、应急操舵控制开关
14、舵角指示器
15、操舵手柄
16、液压马达
17、反馈装置

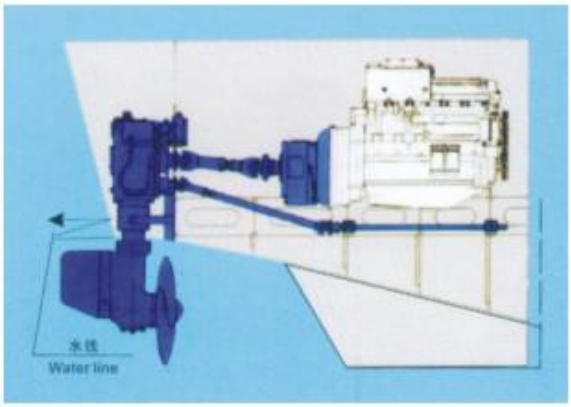
1、 Rudder propeller
2、 wellbox
3、 Intermediate shaft
4、 Bulkhead sealing
5、 Cardan shaft
6、 Hydraulic clutch
7、 Elastic coupling
8、 Engine speed control System
9、 Hydraulic pump
10、Hydraulic aggregate
11、Electric relay box
12、Emergency control speed switch
13、Emergency control steering switch
14、Thruster indicator
15、Steering apparatus
16、Hydraulic motor
17、Feed back unit



舵桨安装形式 Installation type of Rudder Propller

艉机型安装 Transom installation

舵桨艉机型安装是COSC舵桨三种安装形式之一，这种安装形式适用于-机舱空间较小的船型，如浮吊、客船、两栖工作船等。把带有密封的安装板固定在船艉横梁上，舵桨栓在这安装板上，舵桨上部栓在销轴上，下部被夹紧在推力环座上，当推力卡环松开，舵桨就可以绕销轴向上翘起。为了减少噪音，还可采用弹性安装方式。



Transom installation typess.It is used for ships and vessels space of engine room are smaller, such as floating cranes, passenger ships, inland and coasting vessels etc. A mounting plate with sealing is fixed on the plate. That is, the upper of the Rudder Propeller is fixed on the pinaxis, and the lower is clamped on the pushing ring. Whenreleasing the thrust bearinhg, the propeller can easiy be elevated backwards.

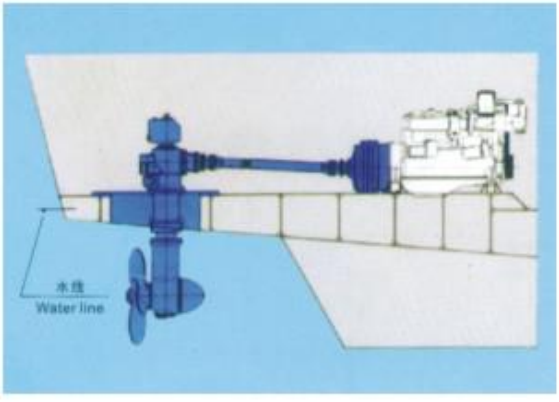
Elastic suspension for special Sound Proofing is available for this mode of installat installation.

井式安装Well installation

舵桨井式安装对于拖轮、渡船、钻井平台、浮船坞和考察船尤为合适。

舵桨安装在船舱的井箱中，舵桨的立柱长度可以按船体变化而确定，以适应船体安装的需要。井箱的上沿一般要求高于水线，使船在漂浮状态下能安装和拆卸舵桨。

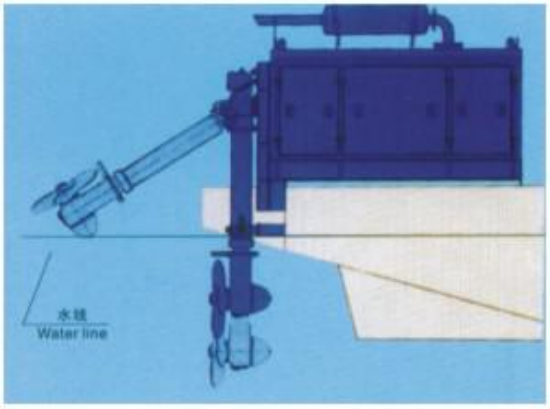
舵桨井式安装可适应舵桨和柴油机距离变化的要求。当机舱很小时，舵桨与柴油机距离可以很近，同时又能适用于柴油机与舵桨远距离传动。



The well installation is especially suitable for tugs, ferries well station, floating dock and survey ships. The COSC Rudder Propeller is mounted in the well. The stem length varies with the requirement of application. The top mounting plate of the well should, if at all possible,be above the waterline so that the Rudder Propeller can be installed and removed when the ship is floating.

Well installation varies with the distance between the Rudder-Propeller and the diesel engine. When the engine room is very small, the Rudder Propeller can be near to the diesel engine and suitable for application in long-range transmission between diesel engine and rudder propeller.

甲板机组型舵桨 Deck installation



DECK舵桨是将舵桨和柴油机组装串联成一体的完整的船用推进机组。它包括柴油机和舵桨等，具有工作可靠、结构紧凑等优点，柴油机通过弹性联轴节、离合器和万向轴把动力传递给舵桨，在机座上安装有液压系统、电控箱、日用燃油箱等部件。由于DECK舵桨自成一体，在装船前机组内的各部件和系统均连接安装、调试完毕。公共机座在船上就位固定以后，只需要连接少量管路和电缆，船舶就具有航行和操纵能力。整合舵桨直接安装甲板机座上，舵桨安装与机架的尾端。

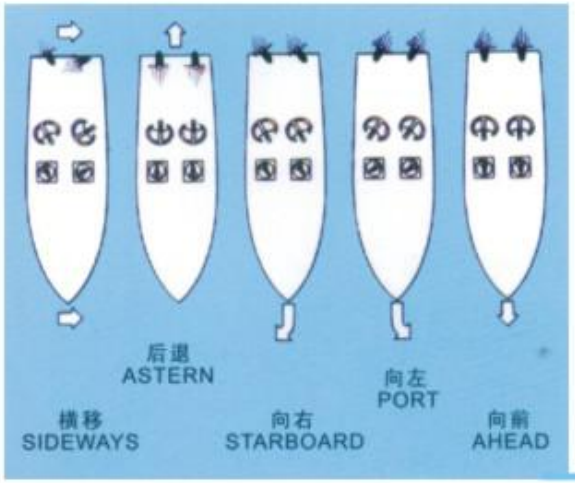
舵桨可以借助于机械的或液压的调节装置在垂直方向提升和下降，通过调整螺旋桨吃水深度，使船在吃水深度变化时都能获得最大的推力。

当舵桨需要维修时，舵桨可以借助于机械或液压的装置把舵桨翘出水面。

Deck installation is a complete propulsion package. It is a reliable and complete propulsion plant. The chassis carries the totally enclosed proulsion system. The power of the diesel engine is ransmitted to the rudder propeller through an elastic coupling. A hydraulic clutch and a universal shaft. The chassis is constructed with a hydraulic system, an electric control box, daily fuel tank and so on system units. Installation is fast and simple be cause they are essentially self-con-tained. Only to connect the minimuw hoses and cables can make it available to obtain thrust. The desk installation unit merely has to be mounted and bolted onto afoundation of deck. Rudder propeller is mounted at the rear chassis.

The rudder propeller can be mechanically or hydraulically raised or lowered in vertical direction by means of a depth adjustment facil-ity. This serves to ensure maximum propeller thrust at all vessel draughts by maintaining the correct propeller immersion.

For maintenance purposes, the rudder propeller can be pivoted out of the water to the rear hydraulically or mechanically by hand.



转舵操纵 Steering Practice

苏州考斯克公司舵桨标准系列型号

TYPE 型号		CRP20	CRP42	CRP85	CRP168
Max Input Power 最大输入功率KW		45	100	210	300
HP		61	135	285	400
Max. Input Torque N.m 最大输入扭矩(Sf=1)		200	420	850	1675
Max.Input Speed r/min 最大输入转速		2300	2500	2350	2000
Reduction Ratio 减速比	I	1.93	2.5	2.68	3.46
	I上upper	1.7	1.64	1.65	1.53
	I下lower	1.13	1.52	1.62	2.26
Propeller Diameter mm 螺旋桨直径	Max.最大	500	800	950	1150
	Min.最小			700	900
PAL Length mm PAL长度*	MAx.最大	2250	2800	2800	4250
	Min.最小	350	875	980	1400
Weight(incl.Propeller and oil at PAL min)kg 重量(包括桨叶、滑油、并且PAL最小)		65	190	300	1370
Per 100mm extension kg · PAL每增加100mm增加重量kg		8	9	20.4	40

*PAL The length between to centerline of the transmission flange and the centerline of the propeller
PAL为动力输入法兰中心线到螺旋桨中心线的垂直距离

舵桨传递动力的能力取于舵桨的最大输入扭矩，舵桨的使用形式、原动机的类型和船型都可能影响实际使用的输入扭矩，在选择舵桨型号之前请与我们的技术人员协商。原动机（通常是柴油机、液压马达或电动机）的额定输出扭矩Mp是正确选择舵桨的一个重要参数，其计算公式如下：

$$Mp \leq Sf \cdot MR$$

$$Mp = \frac{N \cdot 9549}{n}$$

$$Sf = fz \times fl \times fo \times fs$$

Mp：原动机输出扭矩 Nm(Output torque of prime mover in Nm)
Sf：舵桨安全系数 (Rudder Propeller service factors)
MR：舵桨额定输入扭矩 Nm(Max input torque of Rudder Propeller in Nm)
N：原动机输出功率 Kw(Output power of prime mover in Kw)
N：舵桨输入转速 r/min (Imput speed of Rudder Propeller in r/min)

按通常的工作安全系数要求，每一种舵桨都有其特定的许用设计扭矩。根据我们多年的工作经验，这种设计扭矩在舵桨选型过程中，不能作为最终的依据，而必须对多种服务工况认真考虑。因此，通常的扭矩设计安全系数Sf必须按如下选取：

苏州考斯克船用机械有限公司舵桨安全系数一般满足船级社正常航行规范的要求。对有冰级加强的舵桨安全系数应在0.33~0.67之间。对于有特殊安装要求的舵桨选型必须由苏州考斯克船用机械有限公司确定。

Max input torque of Rudder Propeller decided capacity of its trans-mit power of prime mover the kind of Rudder Propeller operation, the type prime mover or the sort of vessel may influence the actual allowable input torque figure. It is recommended to consult with our technical staff before selecting the definite Rudder Propeller size. As for the selection of the right Rudder Propeller, the output torque Mp of the prime mover (general diesel engine, hydraulic or electric motor) is the most important factor and is calcunlated as follows:

Each type Rudder Propeller has a specific allowable design torque, according to incorporating the normal engineering safety factors. In our many years experience we have consider that this design torque can not be the last word in the selection procedure. .Serious consider-ation has to be given to the various service conditions, resulting in a service factor Sf with the nominal design torque has be corrected. So that.
COSC Rudder Propeller service factors do include the regula-tions of classification societies for normal operation. For ice-class SRP-type service required factors have to be between 0.33 and 0.67. The definite factors for special installation have to be defined by COSC.

Cosc SUZHOU COSC MARINE MACHINERY CO.,LTD

COSC-RUDDER propeller(CRP)Srandard Model Series

CRP280	CRP330	CRP550	CRP1470	CRP1950
480	620	920	1250	1650
650	843	1250	1700	2244
2800	3300	5423	14740	19500
1800	1800	1800	1000	1000
3.96	4.04	5.059	3.257	3.58
1.63	1.53	1.647	1.286	1.286
2.43	2.64	3.071	2.533	2.79
1550	1500	1800	2100	2300
1250				
4750	5000			
1750	1700	2600	2800	3000
2100	2800	5820	11000	16500
40	45			

选型参数：Aids for projecting

Sf=0.75:全功率24小时持续运转（如集装箱船、推船等）
Sf=0.90:间隙满载运转（如港作拖船、浮吊）
sf=1.00:辅助装置（如侧向推进、动力定位等）

安全系数：Service factors Sf

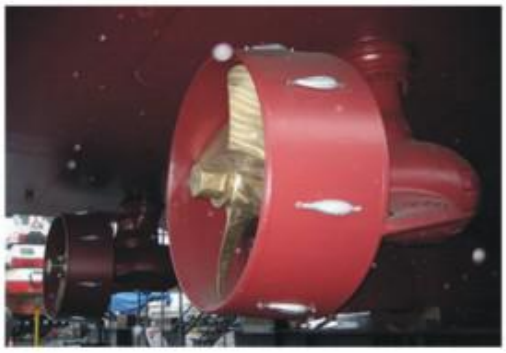
Sf=0.75:Full power continuous rating 24 hours service(container ships,push tugs)
Sf=0.9:Intermittent service with eventual full load(harbo tugs, floating crane)
Sf=1.00:Auxiliary installations(tunnel thruster, Dp-installations)

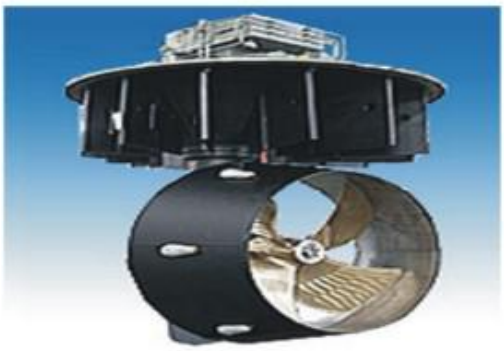
fz	Number of operating hours per year	每年工作小时
1.00	Up to 3000 hours	小于3000小时
0.95	3000-5000 hours	从3000小时到5000小时
0.90	Over 5000 hours	超过5000小时
fl	Load condition	负载状况
1.00	intermittent Load	间歇负载
0.95	Up to 50% full load	小于50%满载
0.90	Continuous full load	连续满载
fo	Overload condition	超载情况
1.00	No engine overload	主机不超载
0.95	Engine overload	主机超载10%
0.90	More than 10% overload	主机大于10%的超载
fs	Field of operation	工作领域
1.00	Dynamic positioning	动力定位
1.00	Inland waterways	内陆航道
0.95	Inland waterways with limited depth	有水深限制的内陆航道
0.95	Limited field of operation	沿海有限航区工作
0.90	Unlimited fieid operation	无限航区工作

Cosc SUZHOU COSC MARINE MACHINERY CO.,LTD

COSC-RUDDER PROPELLER Product exhibit

全回转舵桨产品展示区



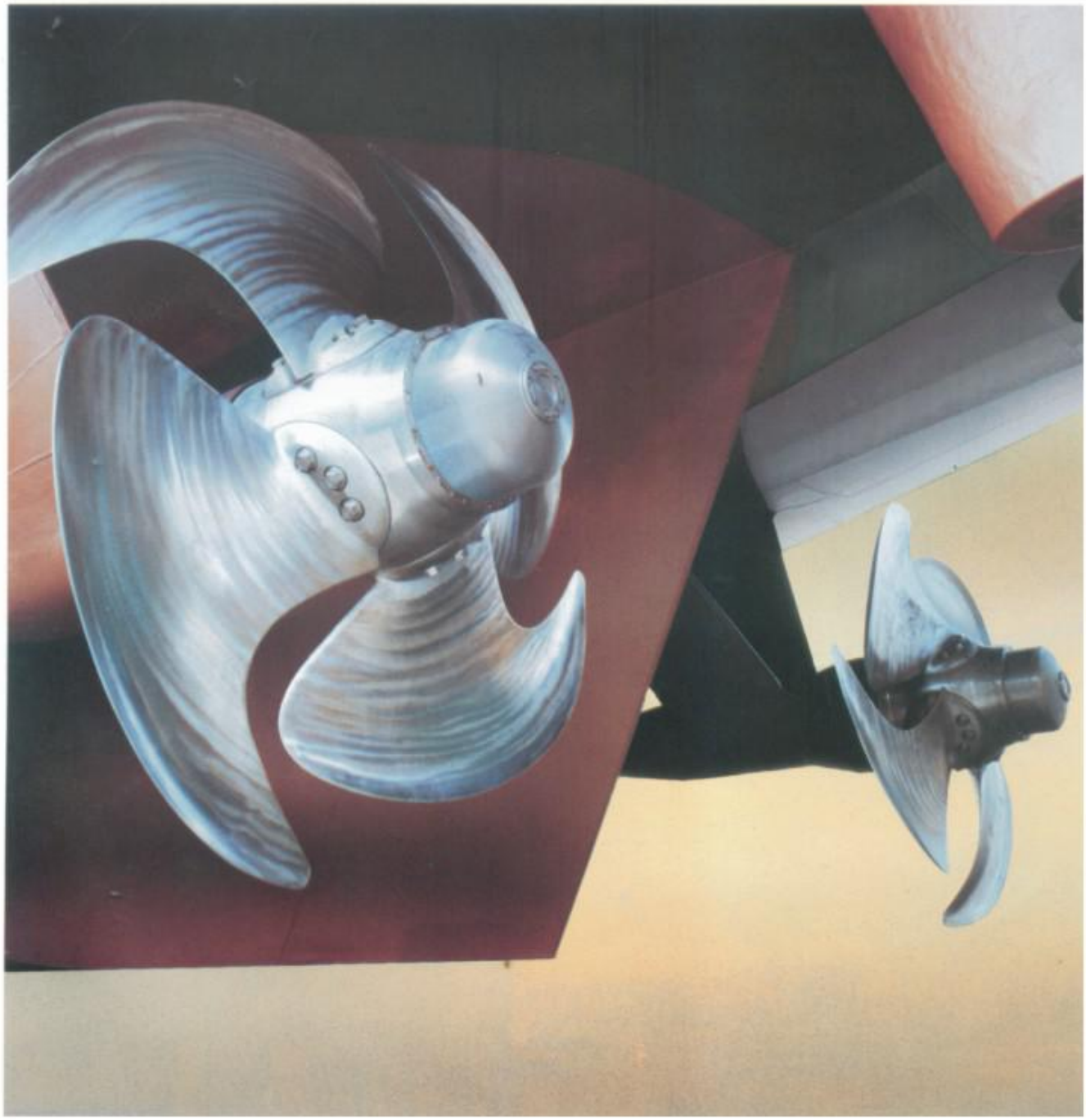


COSC-DECK INSTALLATION Product exhibit

甲板机组型舵桨

COSC SUZHOU COSC MARINE MACHINERY CO.,LTD

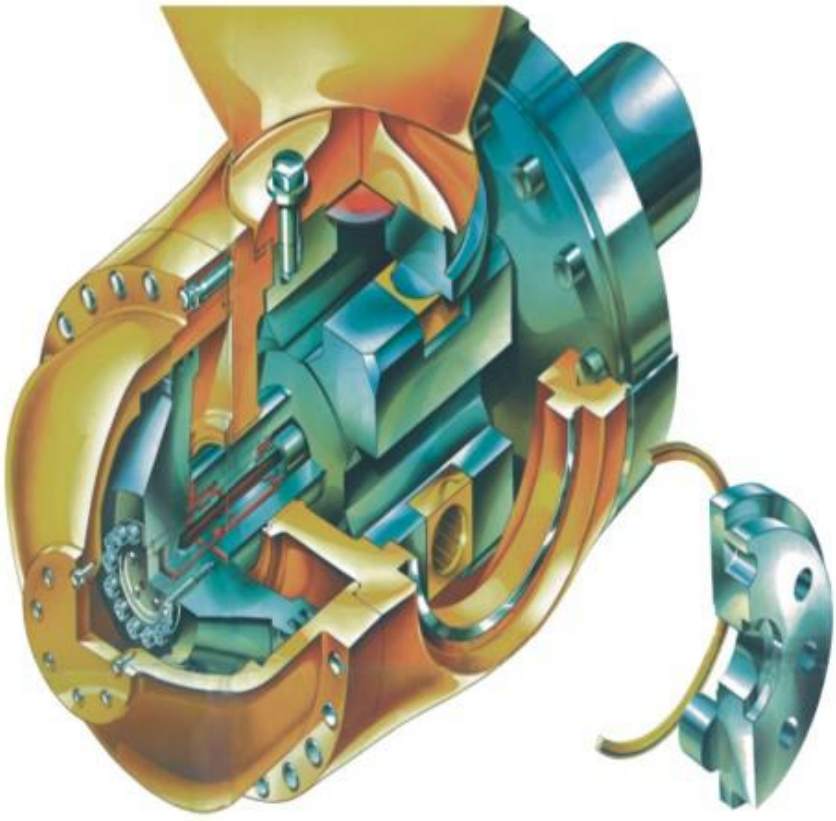
XF3-propellers



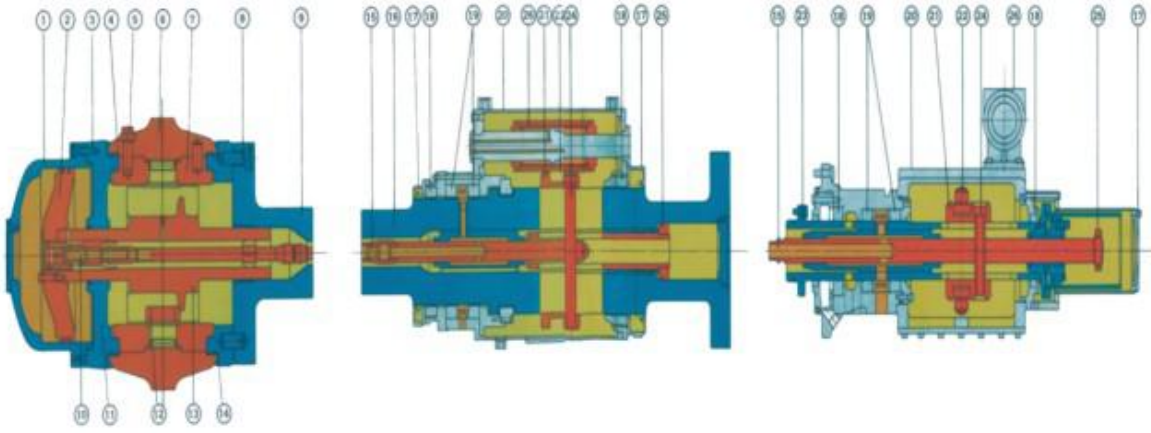
SUZHOU COSC MARINE MACHINERY CO.,LTD

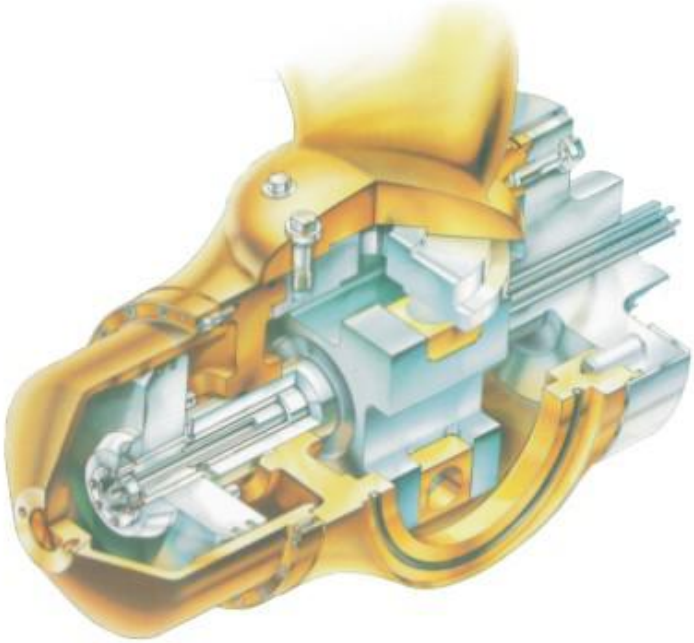
COSC-Controllable pitch propeller

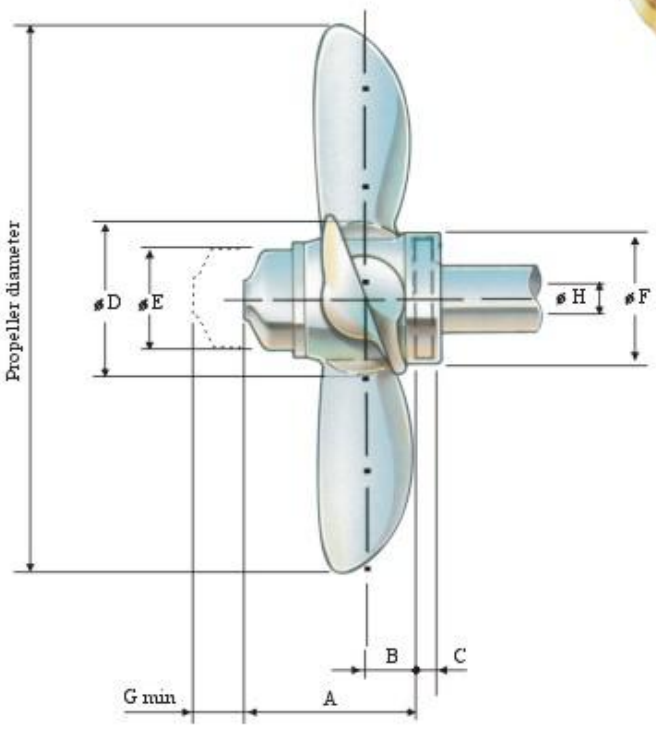
可调螺距螺旋桨



1.Hub cylinder	1.壳部油缸
2.Servomotor piston	2.油缸活塞
3.Hub cylinder screw	3.油缸螺钉
4.Bearing liner	4.叶根轴承衬片
5.Blade flange screw	5.叶根法兰螺钉
6.Blade flange	6.叶根法兰
7.Crank pin ring	7.曲柄销盘
8.Shaft flange screw	8.轴法兰螺钉
9.Propeller shaft	9.螺旋桨轴
10.Main regulating valve assembly	10.壳内主控制阀
11.Hub body	11.桨壳体
12.Sliding block with hole for crank pin	12.有曲柄销孔的滑块
13.Piston rod without rod head	13.导架活塞杆组件
14.Blade sealing ring	14.叶根密封环
15.Valve rod	15.阀杆
16.Intermediate shaft	16.中间轴
17.End cover	17.配油器后端盖
18.Low pressure seal assembly	18.低压密封组件
19.High pressure seal assembly	19.高压密封组件
20.Oil distribution box casing	20.配油器壳体
21.Sliding ring	21.滑环
22.Yoke lever with sliding block	22.带滑块的传动臂
23.Stub shaft	23.短轴
24.Valve rod key	24.传动杆
25.Hydraulic stand-by servomotor device	25.应急操纵装置
26.Auxiliary servomotor	26.辅助伺服油缸







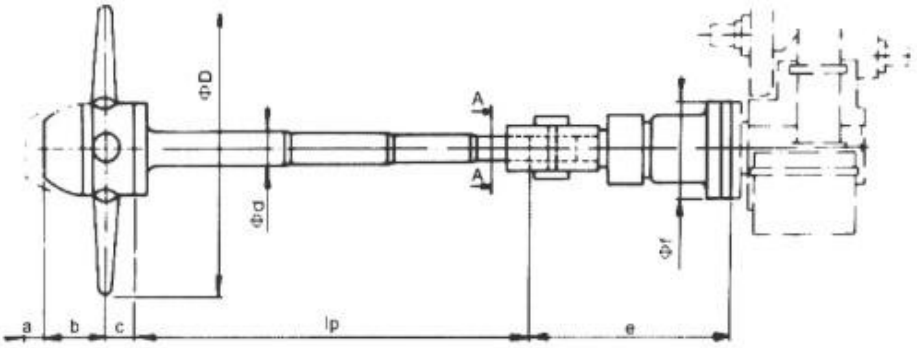
XF3–桨壳尺寸

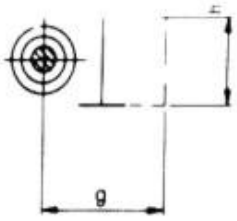
XF3–Hub dimensions

Hub size	A	B	C	D	E	F	G min	H
30	418	140	33	300	190	272	75	30
33	470	159	40	330	205	298	80	35
36	513	173.5	40	360	224	325	85	35
39	556	188	45	390	243	352	90	40
42	587	200	45	420	263	380	100	40
46	643	220	50	460	288	415	110	50
50	700	240	55	500	313	450	120	50
55	749	253	60	550	345	500	130	50
60	817	276	65	600	375	547	140	60
66	896	308	70	660	400	612	155	65
72	969	325	75	720	445	650	170	80
79	1010	335	85	790	500	700	185	80
86	1145	380	90	860	545	780	200	95
94	1250	415	100	940	596	840	220	95
102	1300	430	110	1020	660	920	240	110
111	1400	450	120	1110	716	1000	260	110
121	1552	505	125	1210	782	1090	285	125
132	1670	545	140	1320	850	1180	310	125
144	1805	575	155	1440	936	1285	340	150
157	1987	625	170	1570	1014	1400	370	150
171	2075	675	185	1710	1105	1500	400	175
179	2250	710	195	1790	1150	1570	420	175
186	2240	730	205	1860	1210	1640	440	175
194	2450	770	210	1940	1260	1710	480	200
202	2550	805	220	2020	1320	1790	520	200
211	2670	840	230	2110	1370	1870	555	200
220	2800	875	240	2200	1430	1950	570	200

桨壳尺寸 HUB SIZE

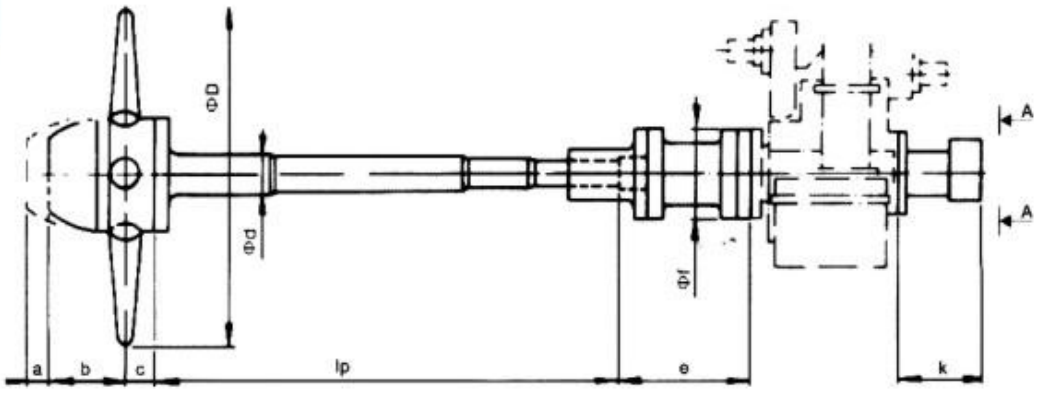
TYPE A



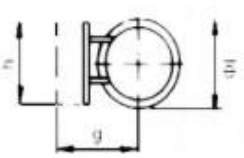


Hub Size	Hub type	Number of blades	a	b	c	e_1	e_2	f	g	h
38	Se	3	180	254	311	810	840	440	490	770
45	Se	3	200	288	341	810	840	440	490	770
53	Se	3	200	380	405	980	970	520	510	770
57	Se	4	240	405	440	980	890	520	510	770
59	Se	3	300	448	250	1200	1180	580	585	770
63	Se	4	290	456	245	1200	1180	580	585	770
69	Se	4	320	470	268	1200	1180	580	585	770
72	KS	4	410	555	305	1230	1430	620	670	770
79	KS	4	450	610	335	1290	1445	700	670	770
86	KS	4	490	665	365	1440	1485	780	690	770
94	KS	4	535	730	400	1490	1615	850	690	770
96	Se	4	280	650	330	1570	1650	740	690	770

TYPE B



Hub Size	Hub type	Number of blades	a	b	c	e	f	g	h	i
53	Se	3	200	380	405	440	520	480	420	320
57	Se	4	240	405	440	440	520	480	420	320
59	Se	3	300	448	250	515	580	500	480	350
63	Se	4	290	456	245	515	580	480	420	320
69	Se	4	320	470	268	515	580	500	480	350
72	KS	4	410	555	305	510	620	500	480	350
79	KS	4	450	610	335	525	700	500	480	350
86	KS	4	490	665	365	730	780	580	595	420
94	KS	4	535	730	400	750	850	580	595	420
96	Se	4	280	650	330	930	740	580	595	420



变距机构 Pitch setting mechanisms

型式A：配油器在轴上
TYPEA：OD-box on a shaft

带夹壳联轴节
with a split muff type shaft coupling
带液压套筒联轴节
with a hydraulic mounted sleeve type shaft coupling

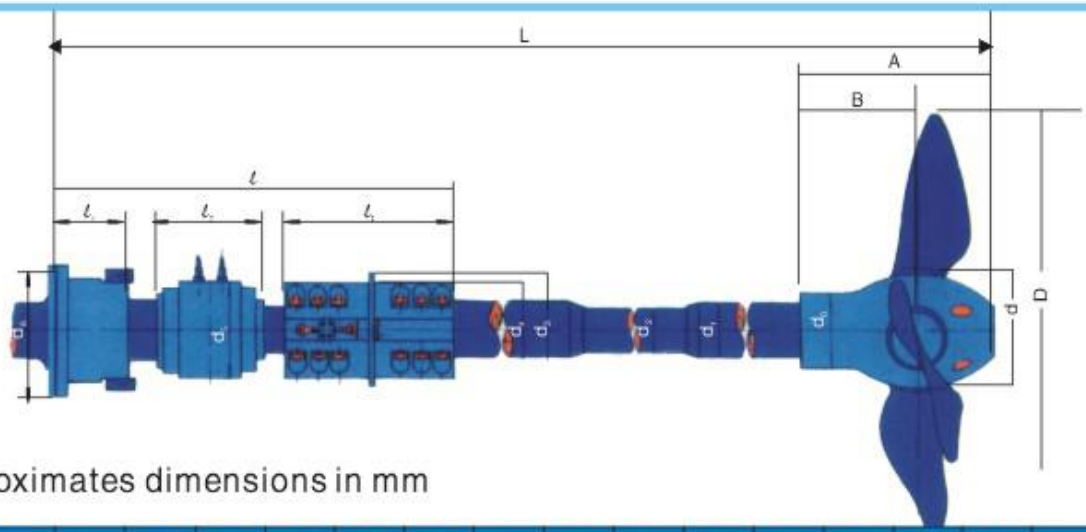
型式B：配油器在齿轮箱上
TYPEB：Gear mounted OD-box
带液压法兰联轴节
with a hydraulic mounted flange type coupling

HUBS

KS型（Ks type）

SE型：(Se type)

XF3型:(XF3-CPP TYPE)



Approximates dimensions in mm

TYPES	L	D	d	d_1	d_2	d_3	d_4	d_5	d_6	A	B	I	l_1	l_2	l_3
KL36/3-ST		1160~1380	360	240		120~150	350	280	300	400	680	400		220	380	530
KL40/3-ST		1290~1540	400	280		150~180	410	340	360	480	740	440		260	410	650
KL45/3-ST		1450~1730	450	300		180~220	470	400	420	500	780	460		300	440	770
KL53/3-ST		1710~2040	530	360		220~250	550	480	520	520	820	480		380	480	875

COSC-XF3-Propeller Product Exhibit

主推产品展示区