



伞齿轮滚珠丝杆升降机系列

动力传动专业制造商

PROFESSIONAL MANUFACTURER OF POWER TRANSMISSION

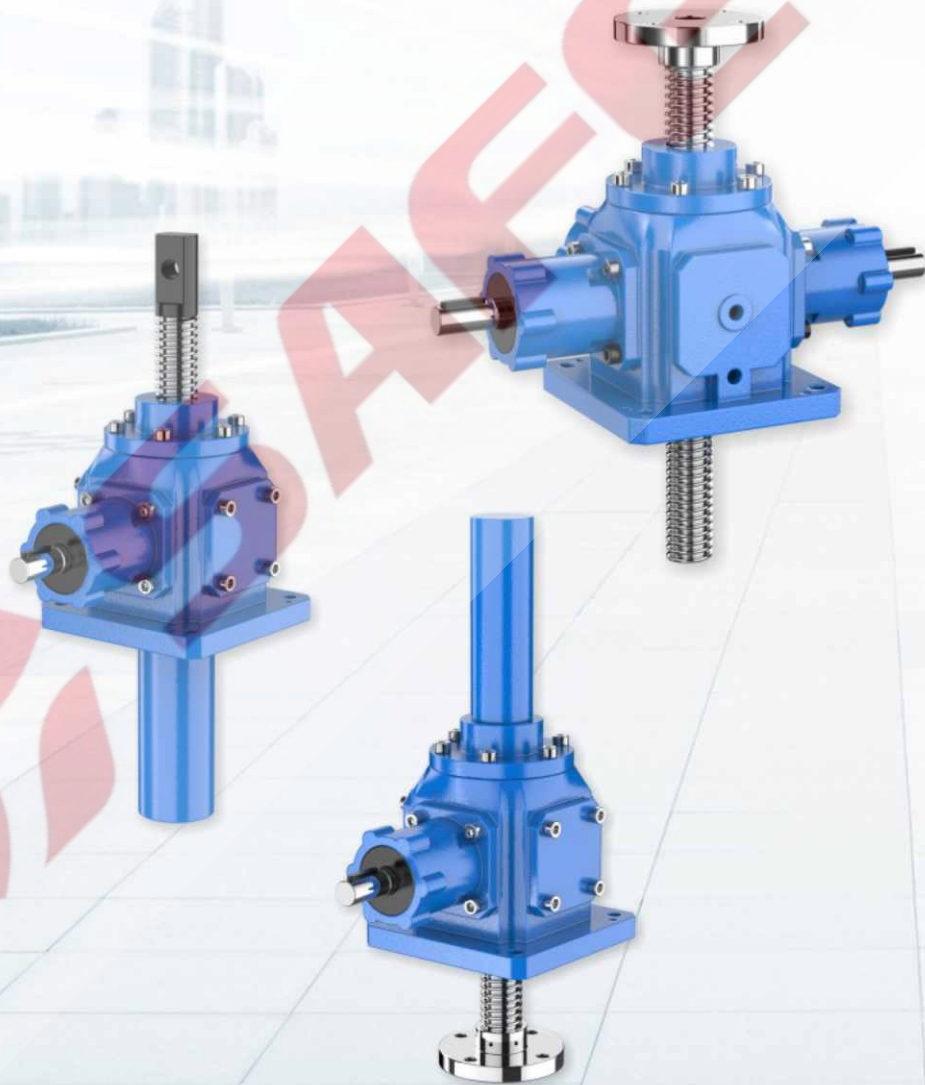
设计理念: 遵循规律, 总是超越

DESIGN PHILOSOPHY: To follow the law, but always beyond.

经营理念: 为客户需求而设计, 为客户满意而执着

BUSINESS PHILOSOPHY: Design for customer demand, dedication for customer satisfaction

伞齿轮滚珠丝杆升降机系列
Bevel gear ball screw elevator series



S 型平台 S-type platform

设计要求:

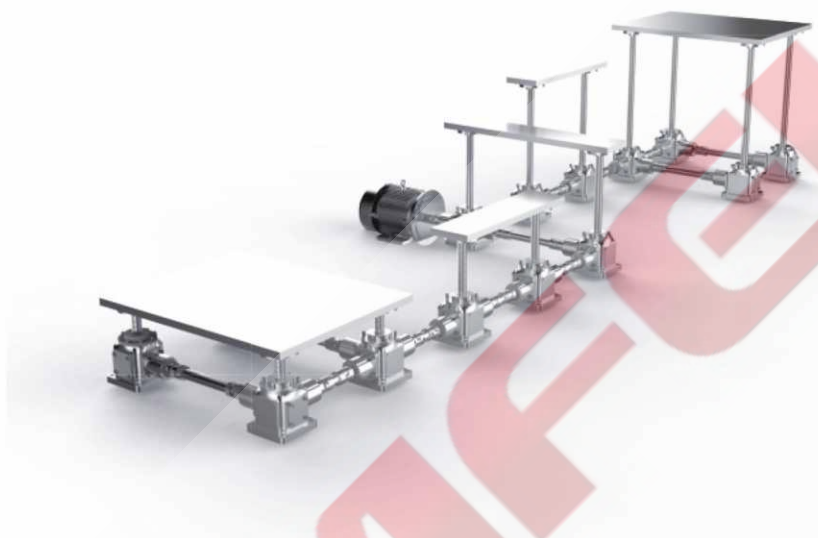
一电机同时驱动 5 个平台, 5 个平台呈 S 型布置, 每个平台互不干涉。电机动作时每个平台分别同时动作, 上升或下降, 并且升降的距离均等。

($X_1=X_2=X_3=X_4=X_5$)。

应用场合: 舞台机械, 自动化流水线等场合。

Design requirements:

Motor drives 5 platforms at the same time. The platforms are S-shaped layout. Each platform does not interfere with each other. When the motor moves, each platform moves at the same time, rises or falls, and the distance is equal. ($X_1 = X_2 = X_3 = X_4 = X_5$). Application: Stage machines, automated assembly line and so on.



三角型平台 Triangular platform

设计要求:

一电机同时驱动 3 个平台, 3 个平台呈三角型布置, 每个平台互不干涉。电机动作时每个平台分别同时动作, 上升或下降, 并且升降的距离均等。

($X_1=X_2=X_3$)。

应用场合: 舞台机械, 自动化流水线等场合

Design requirements:

A motor drive three platforms, three platforms were triangular layout, each platform does not interfere with each other. When the motor moves, each platform moves at the same time, rises or falls, and the distance is equal. ($X_1 = X_2 = X_3$). Application: Stage machines; automated assembly line etc.



SFL说明

当今社会的发展朝着快速，绿色，精准方向在不断迭代，“中国制造2025”亦是如此。“中国制造2025”可以解析成两个“五五”，即是五条方针：创新驱动、质量为先、绿色发展、结构优化和人才为本；即五大工程：1.制造业创新中心(工业技术研究基地)建设工程；2.智能制造工程；3.工业强基工程；4.绿色制造工程；5.高端装备创新工程；

通过解析这两个“五五”，可以看到中国制造势必是基于智能机械，海量数据，云计算，物联网建立一个工业强国。

“塞弗勒”制作的产品是处于智能机械的基础部件，要想制作成更好地智能机械就必须更智能的线性运动件。基于这个基础建设要求，“塞弗勒”的技术团队确立开发更高升降速度、更精准的定位精度、更节能的线性运动产品。SFL系列升降机经过“塞弗勒”团队数十个月的计算和设计，通过1年多的现场应用积累，终于应运而生：SFL系列螺旋伞齿轮-T型丝杆升降机（可以在更紧凑的结构下完成更高速和更高的承载能力）和SFLB系列螺旋伞齿轮-滚珠丝杆升降机（可以在更紧凑的结构下完成更高速和更精准的定位精度）。

SFL Description

Nowadays, the society development is constantly iterating in a fast, green, and precise direction, the same true of "Made in China 2025". "Made in China 2025" can be parsed into two "Five - Five", that is, five principles: innovation - driven, quality first, green development, structural optimization and talent-based; five major projects: 1. Manufacturing Innovation Center (Industrial Technology Research Base) Construction Project; 2. Intelligent Manufacturing Engineering; 3. Industrial Foundation Engineering; 4. Green Manufacturing Project; 5. High-end Equipment Innovation Project

By analyzing the "Five - Five", we can see that Chinese manufacturing is bound to build an industrial power based on intelligent machinery, massive data, cloud computing and the Internet of things.

"RIZING" produces products that are the basic components of intelligent machines. In order to make better intelligent machines, smarter linear motion parts are necessary. Based on this foundational construction requirement, "RIZING" technical team has established a linear motion product with higher lifting speed, more precise positioning accuracy and more energy-saving. The SFL series lifts have been calculated and SFL designed by the "RIZING" team for tens of months. After more than one year of on-site application accumulation, it finally came into being: series spiral bevel gears - T-type screw jacks (can achieve higher speed and higher loading capacity in a more compact structure) and SFLB series spiral bevel gear - Ball screw lifter (can achieve higher speed and more precise positioning accuracy in a more compact structure)

HL初选表

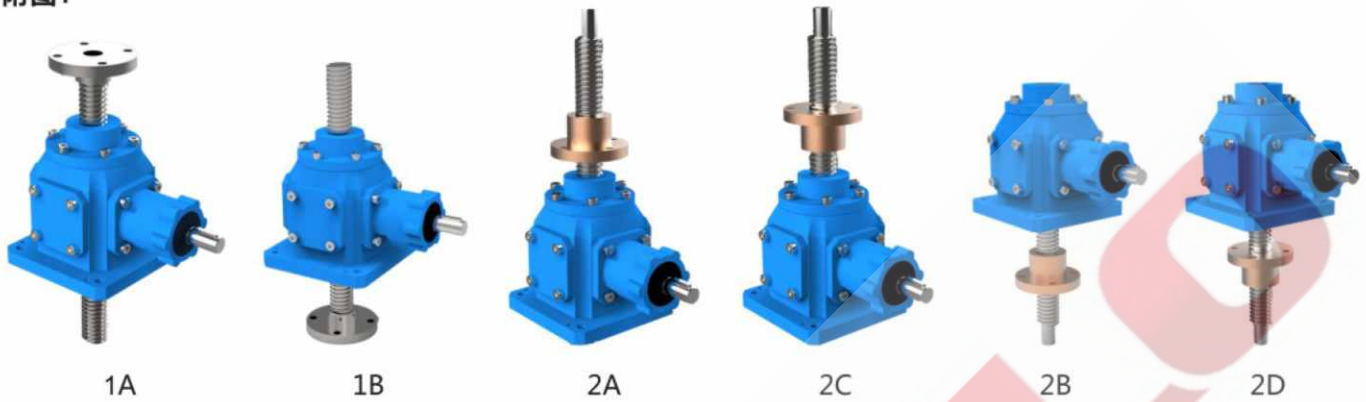
类别 \ 型号	单位	SFL100	SFLB100	SFL125	SFLB125	SFL140	SFLB140	SFL160	SFLB160
静载	Kgf	9766	9766	12400	12400	12691	12691	20286	20286
动载	Kgf	3844	3844	4319	4319	4803	4803	5375	5375
丝杆参数		Tr32×6	3210	Tr40×6	4010	Tr50×8	5010	Tr63×10	6310
速比I		2.5	2.5	3	3	3	3	3	3
对应输入轴每转丝杆提升量	mm	2.4	4	2	3.33	2.67	2.67	2.67	2.67
对应升降效率	%	36	60	32	60	32	60	30	60
II型螺母材料		铝青铜	Gcr15	铝青铜	Gcr15	铝青铜	Gcr15	铝青铜	Gcr15
外壳材料		球磨	球磨	球磨	球磨	球磨	球磨	球磨	球磨

注：表中动载值需满足有良好导向，丝杆安装垂直度和平行度小于0.05mm。2型结构可以通过多导程方式加大承载。

SFL 125 - 3 - 1B - II - U - 2L - 100 - F - Z
1 2 3 4 5 6 7 8 9 10

- 1 SFL:T型丝杆伞齿轮升降机；
SFLB:滚珠丝杆伞齿轮升降机；
- 2 125:伞齿轮升降机型号：100（T4），125（T6），140（T7），160（T8）；
- 3 3:速比：2.5、3；
- 4 1B:升降机安装方式：
1A：丝杆运动丝杆在上；1B：丝杆运动丝杆在下；
2A：螺母运动螺母在上并螺母朝上；2B：螺母运动螺母在下并螺母朝上；
2C：螺母运动螺母在上并螺母朝下；2D：螺母运动并螺母朝下；（附图1）
- 5 II:丝杆头部：I光柱，II法兰，III螺纹，IV扁头；（附图2）
- 6 U:齿轮安装位置：
U：输入轴逆时针，丝杆、螺母上升；
D：输入轴逆时针，丝杆、螺母下降；（附图3）
- 7 2L:轴承座安装方式：1L、2L、2L-1、3L、4L；（附图4）
- 8 100:行程：升降机运行线性距离；
- 9 F:是否防旋转：F防旋，不防旋转不填写；
- 10 Z:防护罩：Z防护罩，X伸缩防护罩，Q两种防护罩。

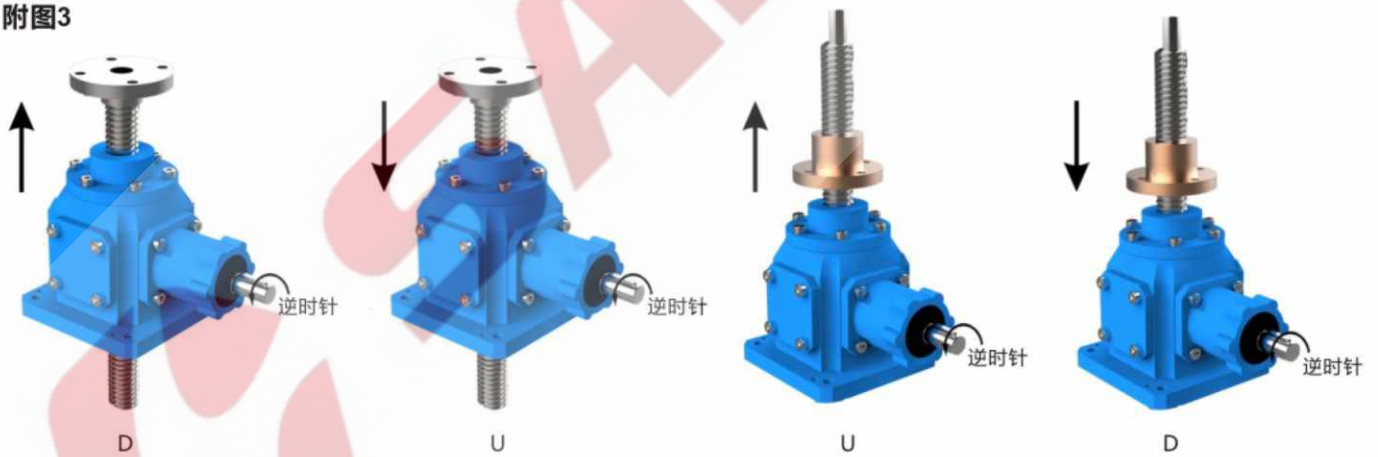
附图1



附图2



附图3



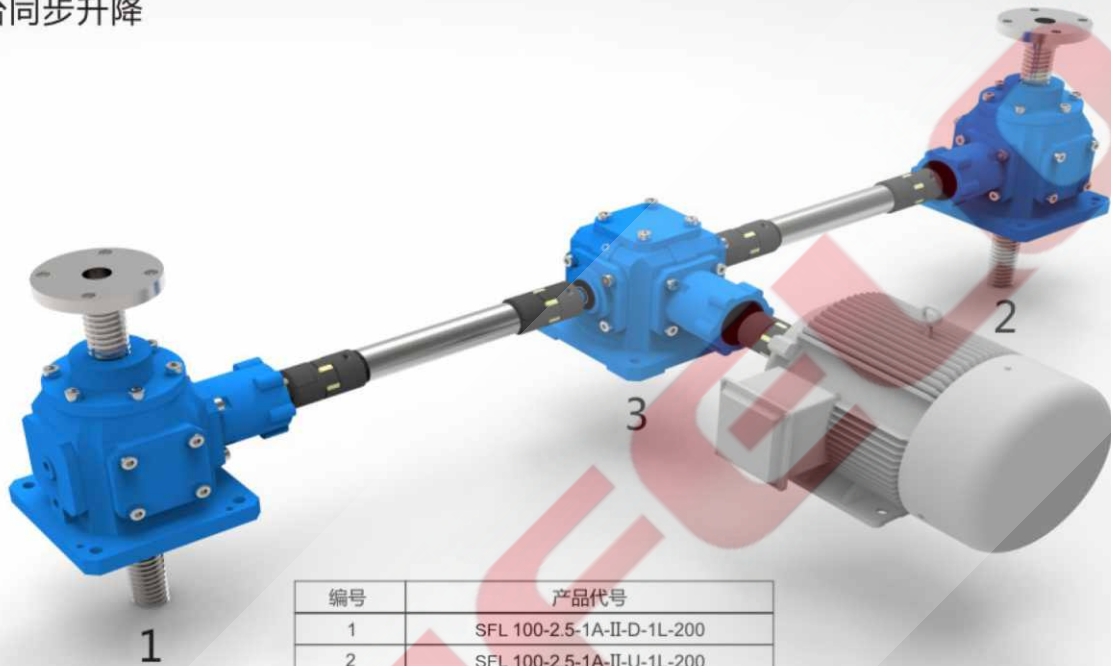
附图4



SFL...

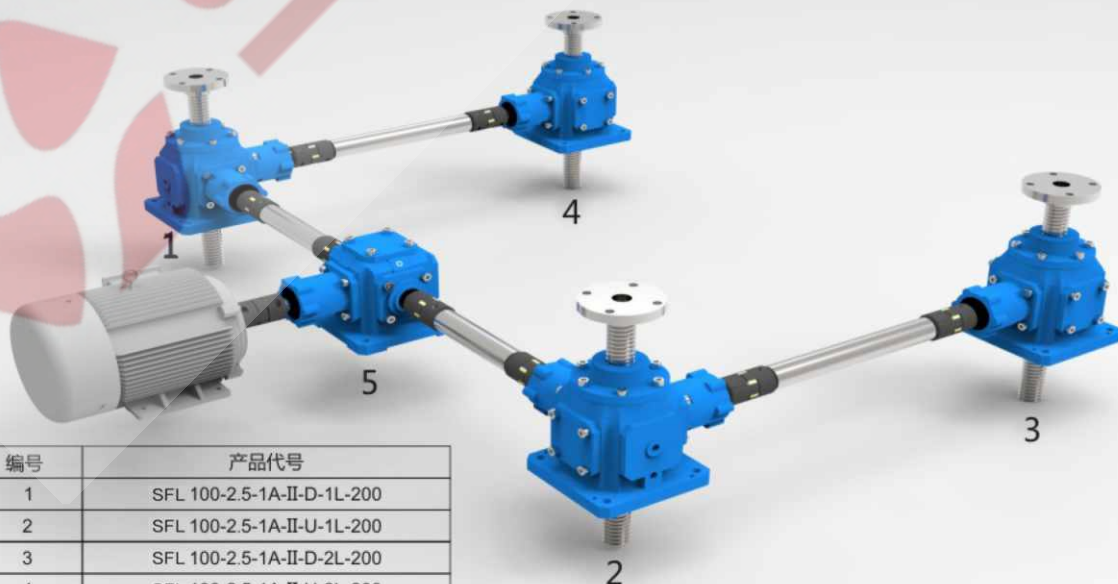
使用范例（升降示意图）

两台同步升降



编号	产品代号
1	SFL 100-2.5-1A-II-D-1L-200
2	SFL 100-2.5-1A-II-U-1L-200
3	T4-1:1-LR-B3

四台同步升降

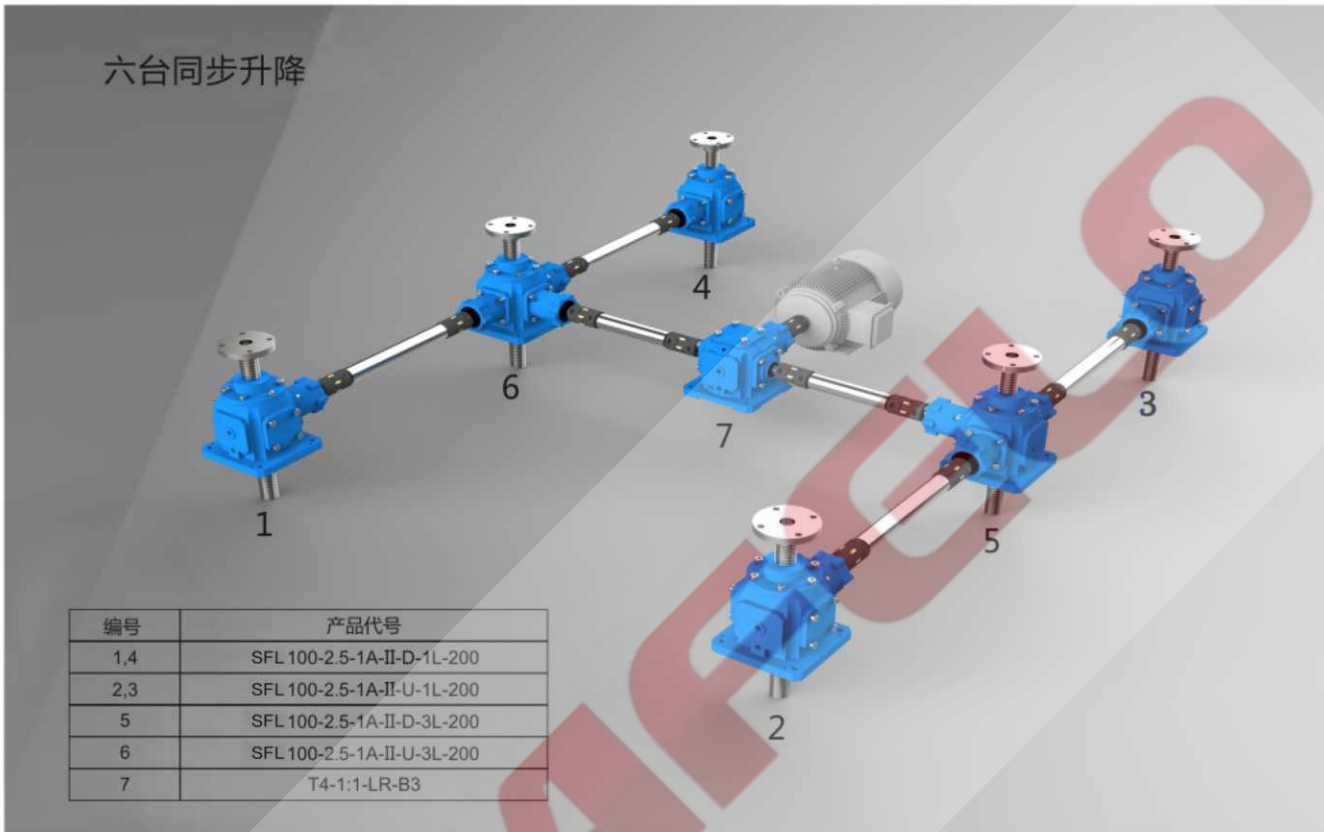


编号	产品代号
1	SFL 100-2.5-1A-II-D-1L-200
2	SFL 100-2.5-1A-II-U-1L-200
3	SFL 100-2.5-1A-II-D-2L-200
4	SFL 100-2.5-1A-II-U-2L-200
5	T4-1:1-LR-B3

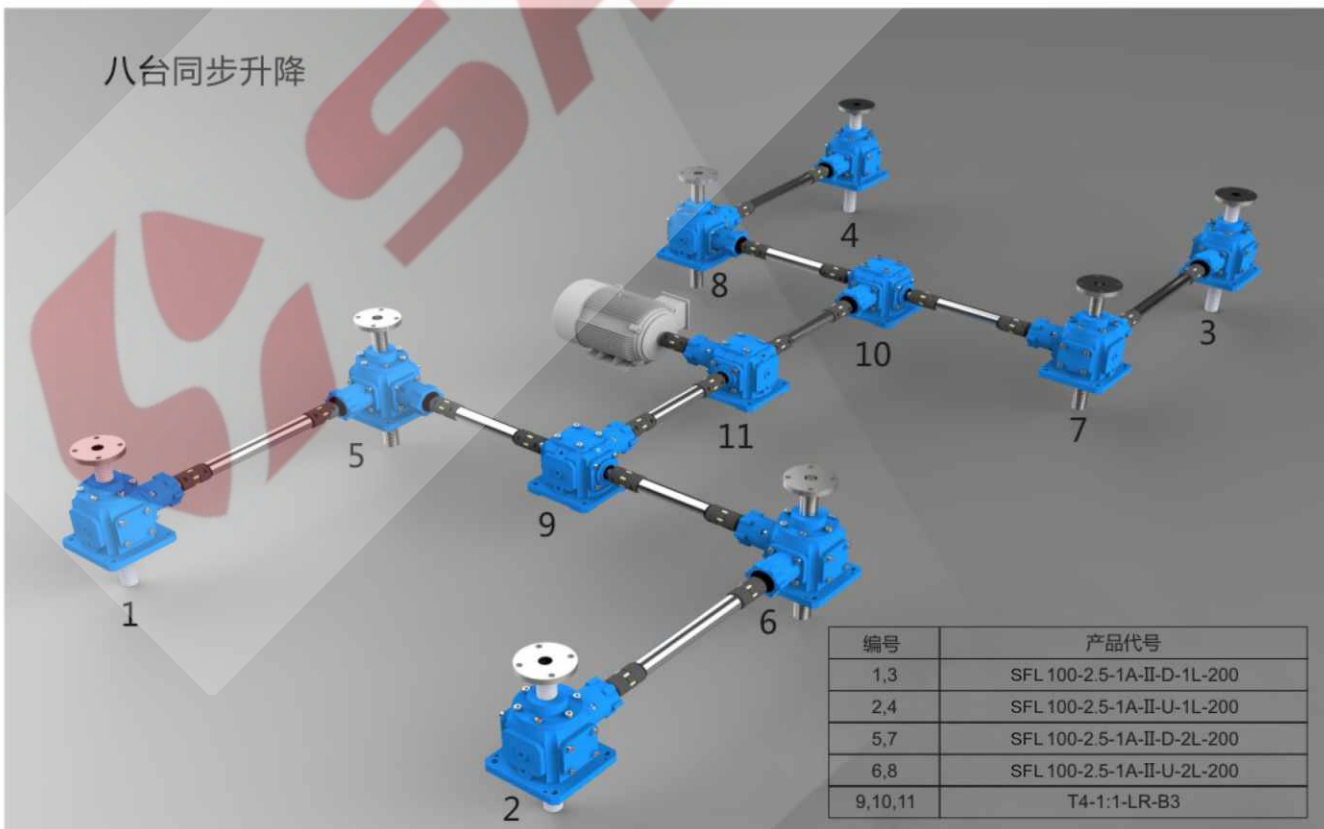
SFL...

使用范例（升降示意图）

六台同步升降



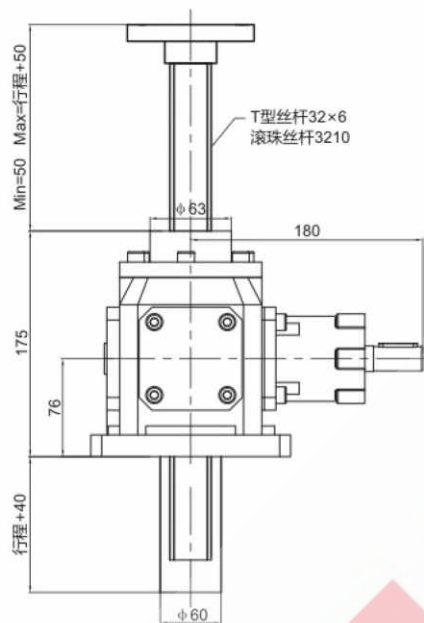
八台同步升降



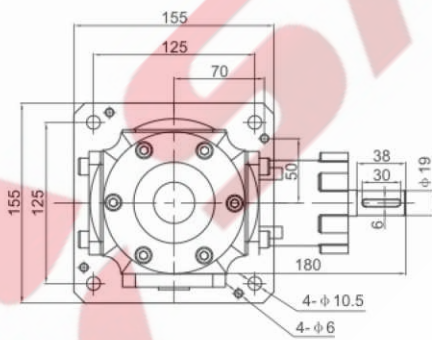
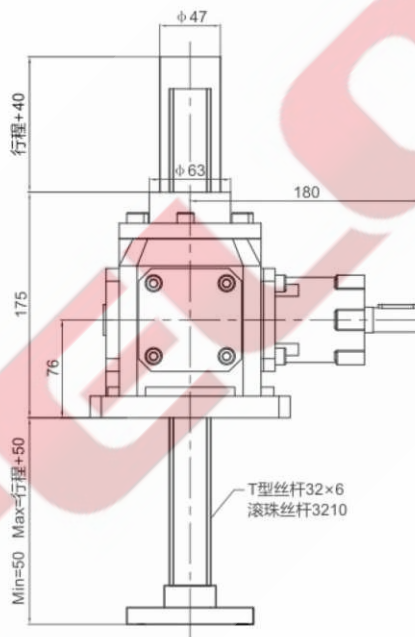
SFL...

SFL100 I 型结构

基本型 1A

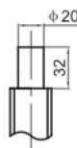


基本型 1B

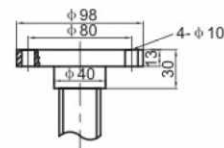


丝杆头部可选

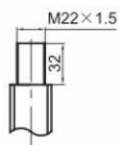
I型



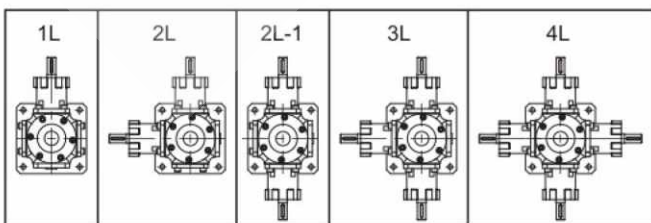
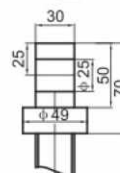
II型



III型

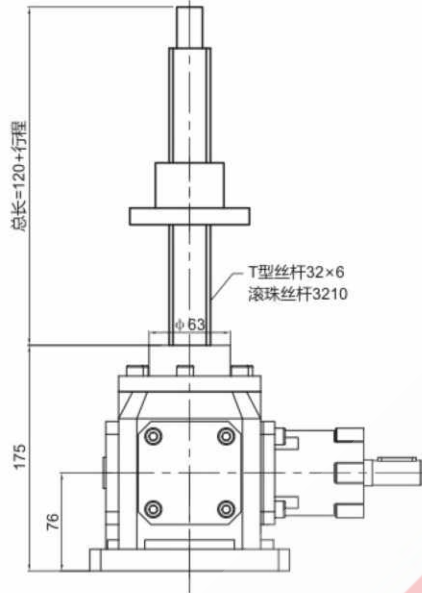


IV型

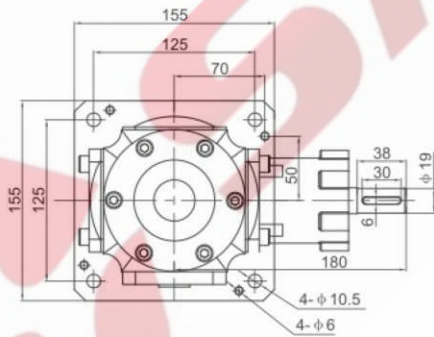
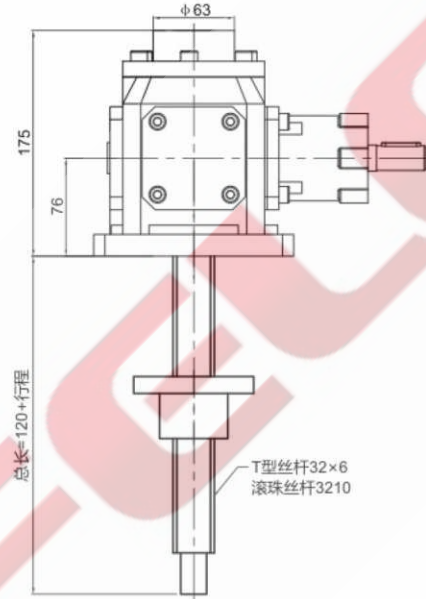


SFL100 II 型结构

基本型 2A/2C

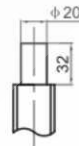


基本型 2B/2D

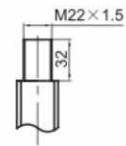


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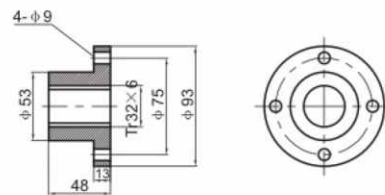
I型



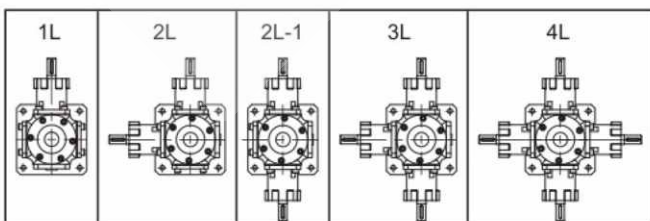
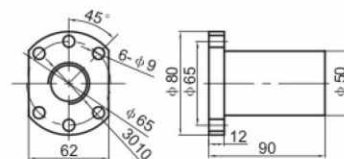
III型



2型T型丝杆螺母



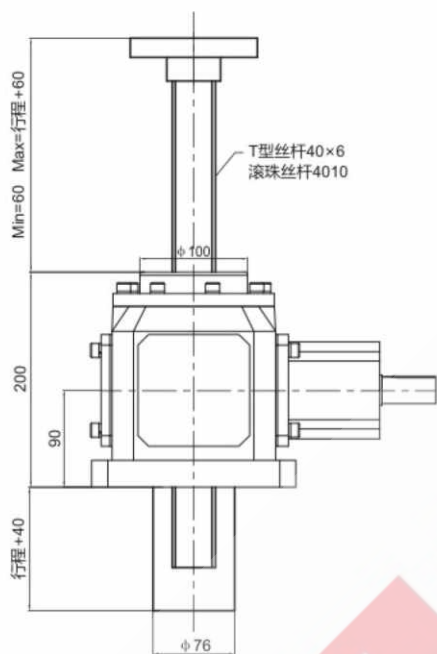
2型滚珠丝杆螺母



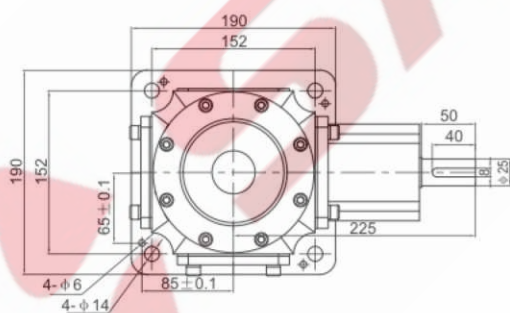
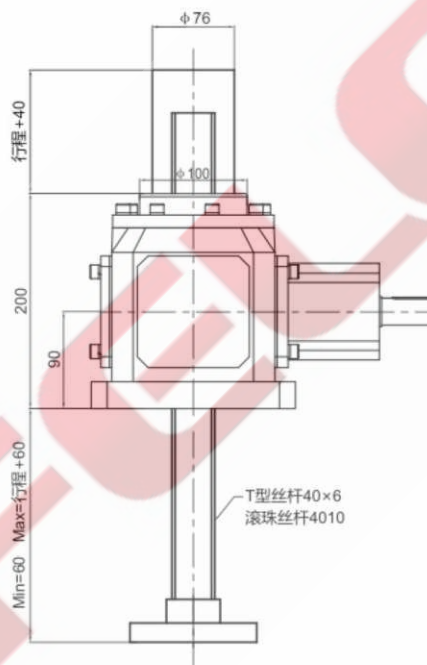
SFL...

SFL125 I 型结构

基本型 1A



基本型 1B

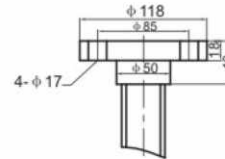


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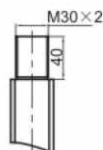
I型



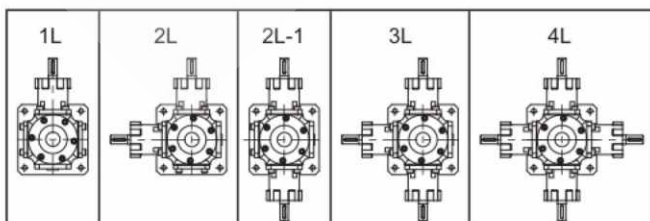
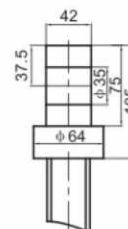
II型



III型

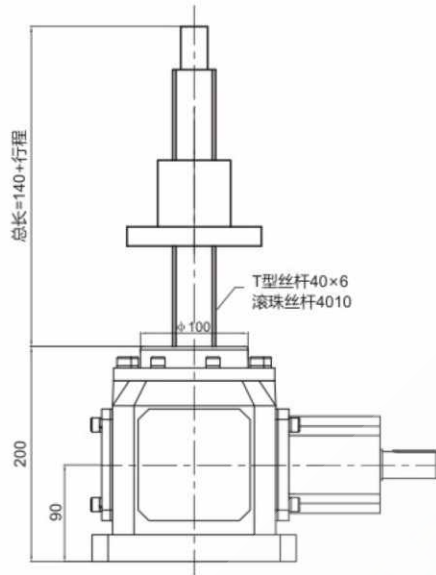


IV型

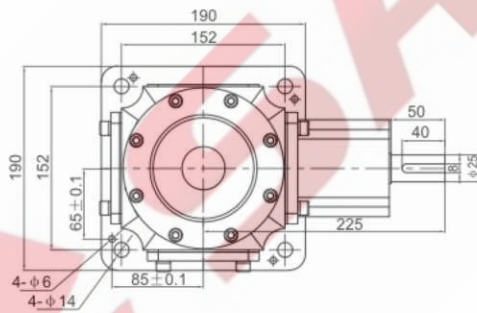
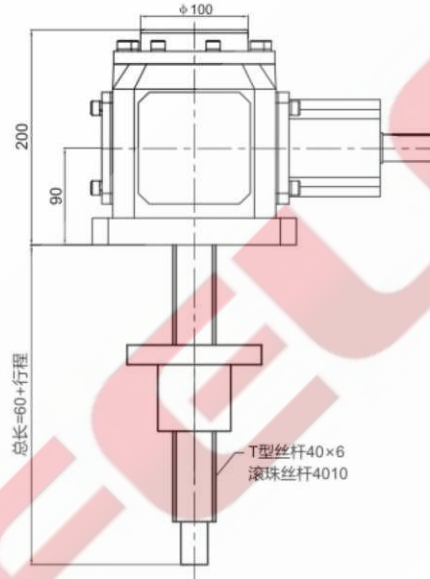


SFL125 II 型结构

基本型 2A/2C



基本型 2B/2D

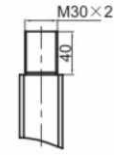


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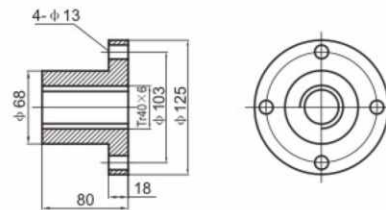
I型



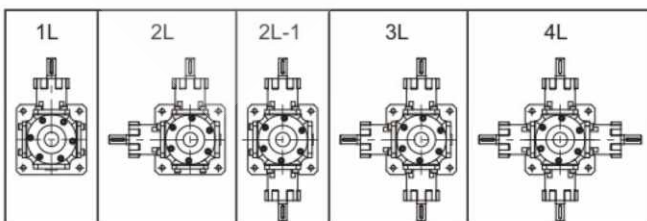
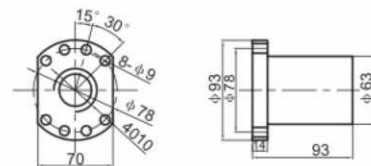
III型



2型T型丝杆螺母



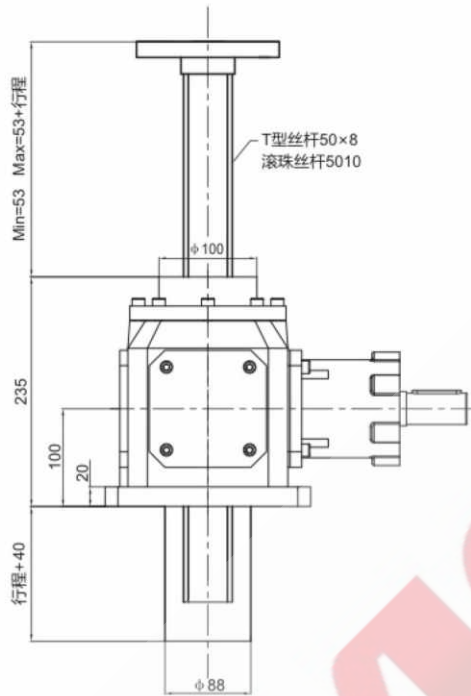
2型滚珠丝杆螺母



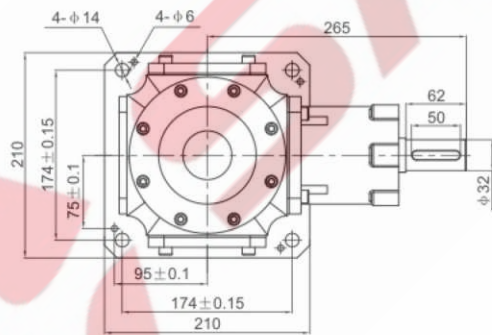
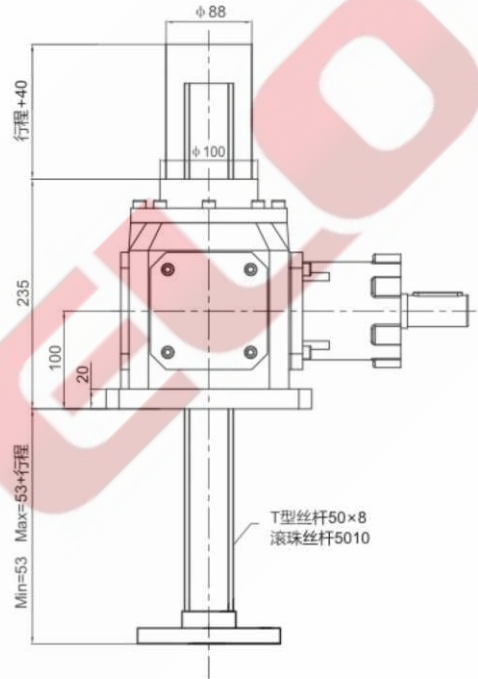
SFL...

SFL140 I 型结构

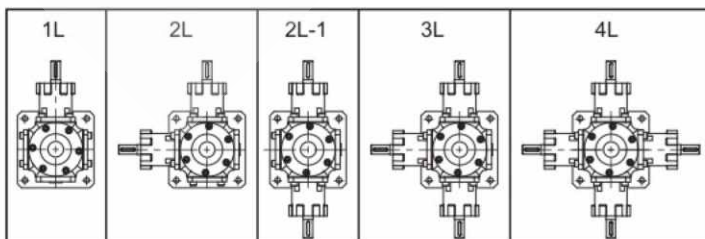
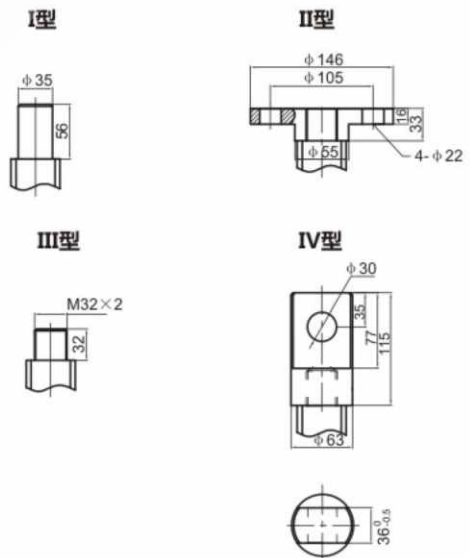
基本型 1A



基本型 1B

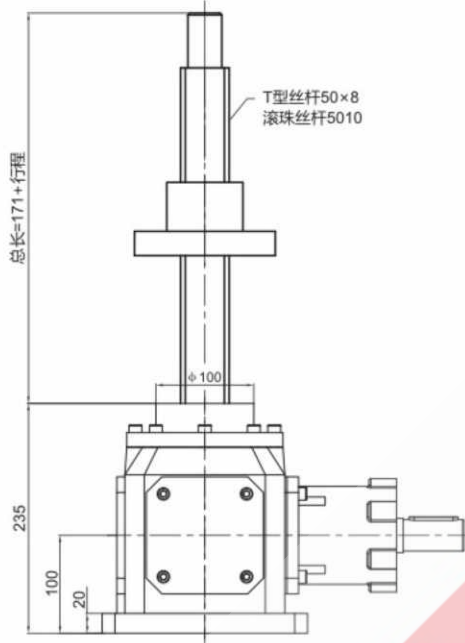


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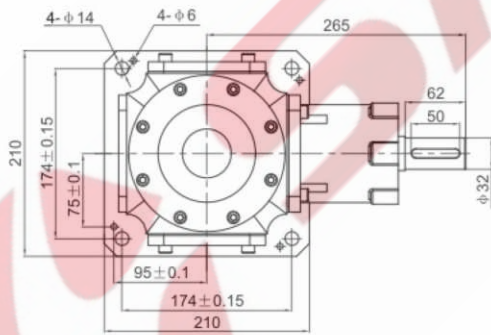
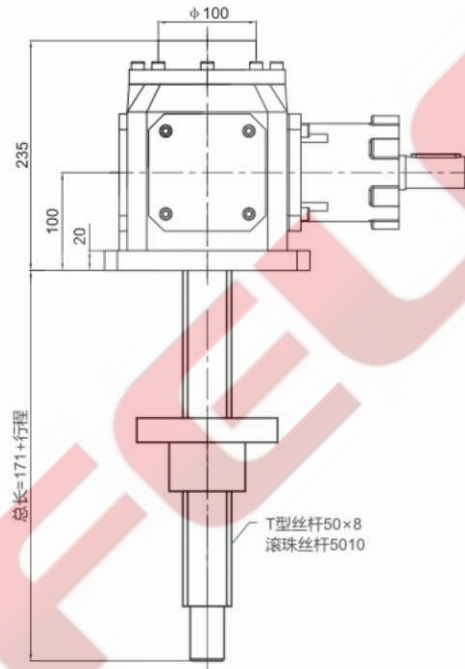


SFL140 II 型结构

基本型 2A/2C



基本型 2B/2D



丝杆头部可选

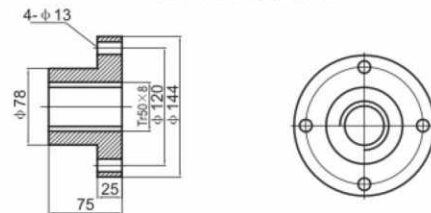
I型



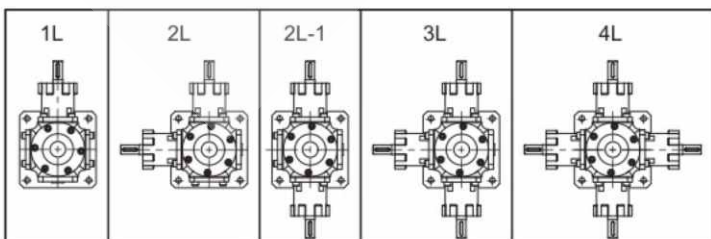
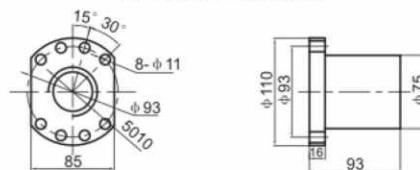
III型



2型T型丝杆螺母



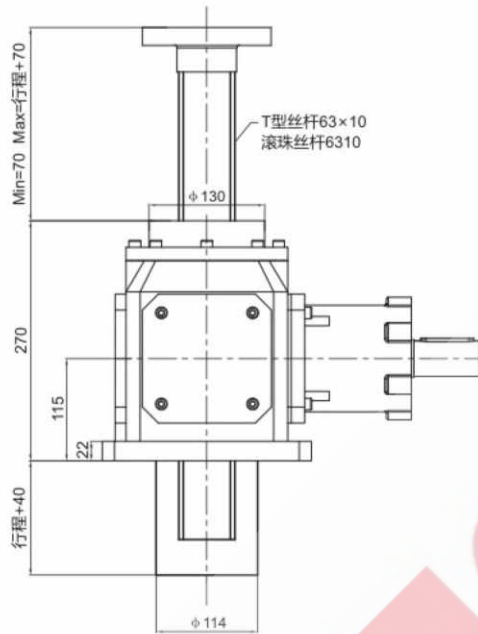
2型滚珠丝杆螺母



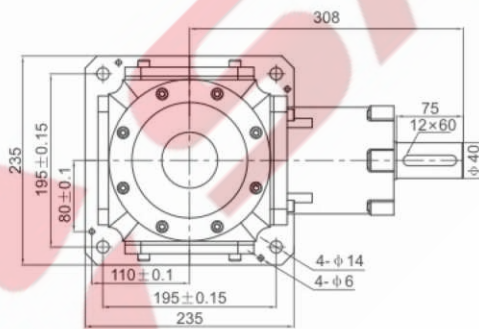
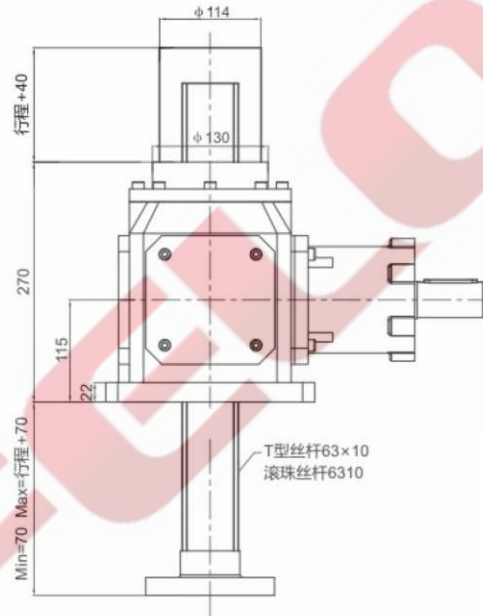
SFL...

SFL160 I 型结构

基本型 1A



基本型 1B

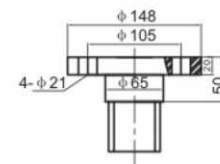


丝杆头部可选

I型



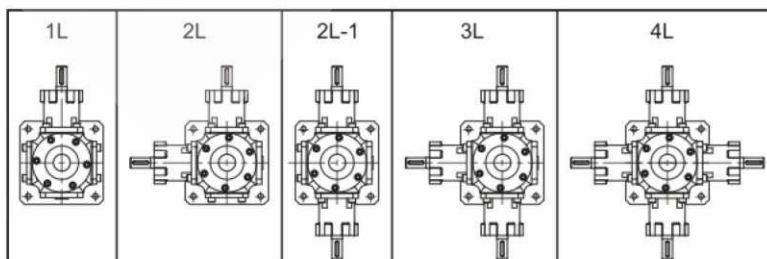
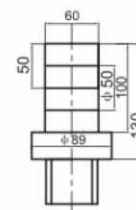
II型



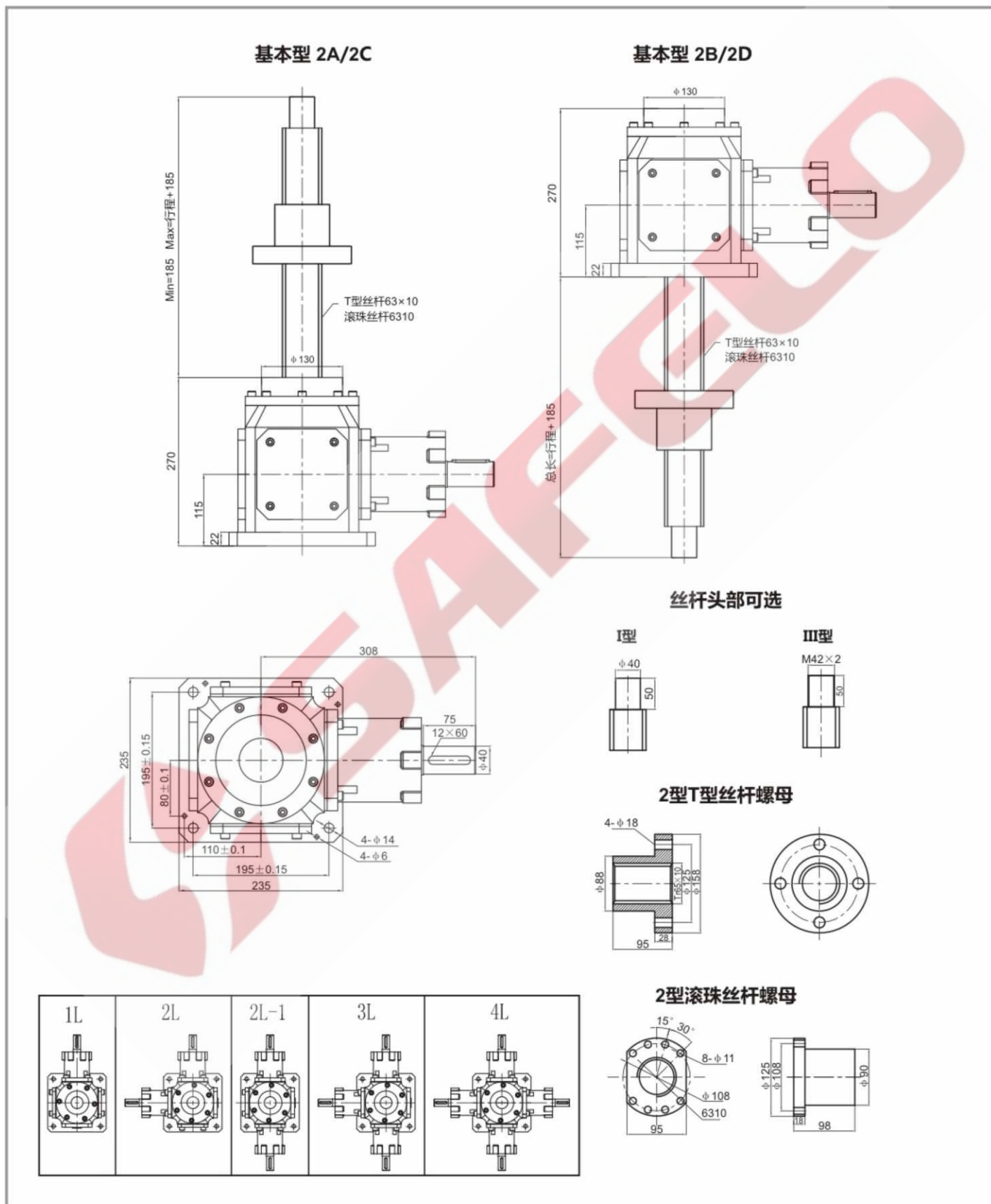
III型



IV型



SFL160 II 型结构



SFL...



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