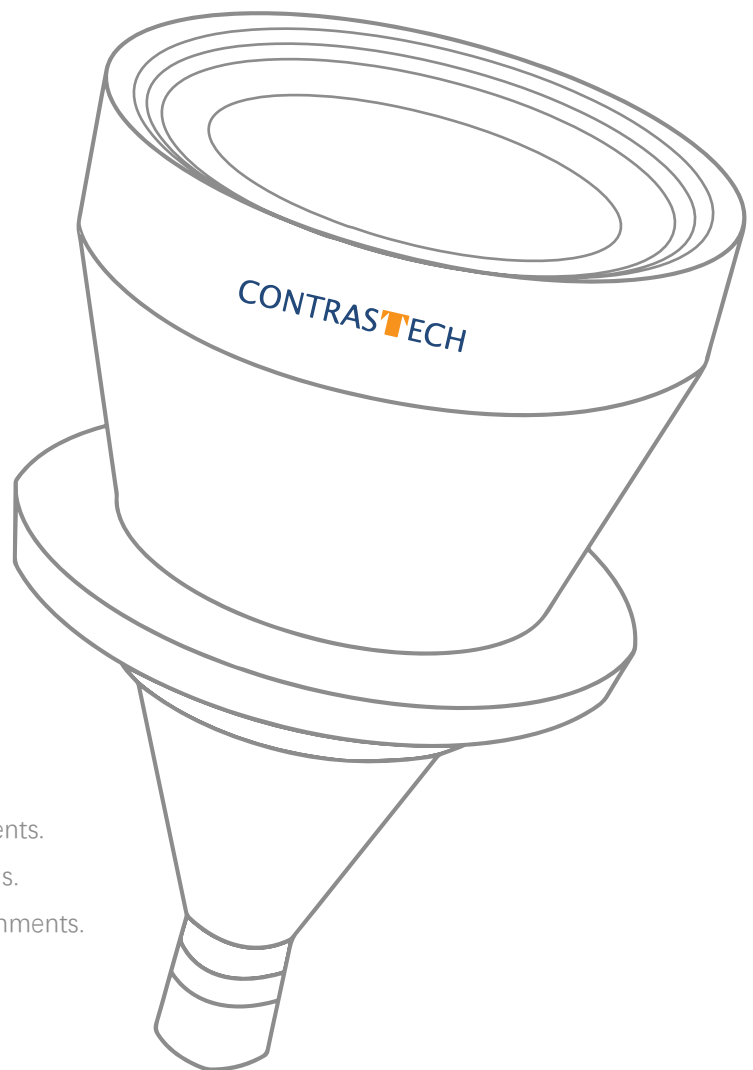


# CLW3-ST SERIES

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## MAIN FEATURES

- ◆ **High telecentricity** for thick object imaging.
- ◆ **Nearly zero distortion** for accurate measurements.
- ◆ **Excellent resolution** for high resolution cameras.
- ◆ **Simple and robust design** for industrial environments.

# ABOUT US

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Hangzhou Contrastech Co., Ltd. is a leading imaging technology company with 20+ years of expertise in machine vision, optical imaging, and intelligent data processing.

Our flagship telecentric lenses, together with 360° telecentric lenses and telecentric light sources, deliver distortion-free imaging and precise measurement, with stable illumination for advanced automation and inspection.

Beyond standard products, we provide customized optical solutions—including infrared, ultraviolet, and multispectral designs—to tackle the most demanding applications.

Today, Contrastech telecentric technology powers leading-edge AI vision systems worldwide, enabling high-precision inspection, intelligent recognition, and reliable data acquisition. By combining world-class performance with optimized cost control, we help customers cut costs by 30–50% while achieving top-tier performance and efficiency.

# CLW3-ST SERIES

- WD 40mm
- WD 65mm
- WD 110mm
- WD 130-180mm
- WD 250mm



## Standard Resolution Telecentric Lenses

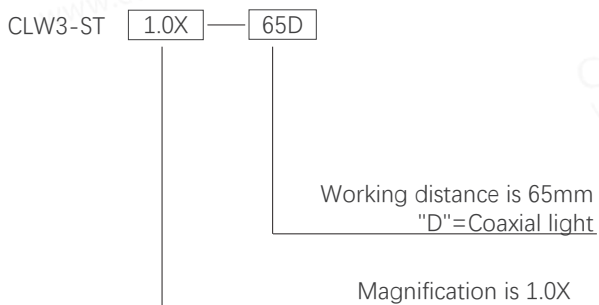
CLW ST series C-Mount Macro lens have telecentric lens elements to achieve high performance at reasonable prices.

The required magnification and working distance can be accommodated to meet your individual requirements by using an optional closed-up ring adapter.

## PRODUCT FEATURES

1. Fixed magnification telecentric lenses, with a wide selection of working distance and magnification;
2. Compact design with 16mm diameter, ideal for limited space;
3. Ideal for manufacturing equipment;
4. High cost performance.

## NAMING RULES



# CLW3-ST SERIES

## ▪ WD 40mm

Model No.	<a href="#">Click to view details/drawings</a>						
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD(6.4 x 4.8)
CLW3-ST-0.5X-40	No	0.5	40	1.3	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-40	No	0.8	40	1	0.009	6 x 4.5	8 x 6
CLW3-ST-1.0X-40	No	1.0	40	1.26	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-40D	Yes	1.0	40	1.26	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-40	No	1.5	40	0.83	0.008	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-40D	Yes	1.5	40	0.83	0.008	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-40	No	2.0	40	0.68	0.008	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-40D	Yes	2.0	40	0.68	0.008	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-40	No	3.0	40	0.5	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-40	No	4.0	40	0.45	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-40D	Yes	4.0	40	0.45	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-6.0X-40	No	6.0	40	0.35	0.008	0.8 x 0.6	1.06 x 0.8
CLW3-ST-6.0X-40D	Yes	6.0	40	0.35	0.008	0.8 x 0.6	1.06 x 0.8
CLW3-ST-8.0X-40	No	8.0	40	0.21	0.008	0.6 x 0.45	0.8 x 0.6
CLW3-ST-8.0X-40D	Yes	8.0	40	0.21	0.008	0.6 x 0.45	0.8 x 0.6

**Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

# CLW3-ST SERIES

## ▪ WD 65mm

Model No.	<a href="#">Click to view details/drawings</a>						
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD (6.4 x 4.8)
CLW3-ST-0.5X-65	No	0.5	65	2.2	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.5X-65D	Yes	0.5	65	2.2	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-65	No	0.8	65	3	0.011	6 x 4.5	8 x 6
CLW3-ST-0.8X-65D	Yes	0.8	65	3	0.011	6 x 4.5	8 x 6
CLW3-ST-1.0X-65	No	1.0	65	1.3	0.009	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-65D	Yes	1.0	65	1.3	0.009	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-65	No	1.5	65	0.8	0.006	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-65D	Yes	1.5	65	0.8	0.006	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-65	No	2.0	65	0.6	0.005	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-65D	Yes	2.0	65	0.6	0.005	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-65	No	3.0	65	0.35	0.007	1.6 x 1.2	2.1 x 1.6
CLW3-ST-3.0X-65D	Yes	3.0	65	0.35	0.007	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-65	No	4.0	65	0.2	0.007	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-65D	Yes	4.0	65	0.2	0.007	1.2 x 0.9	1.6 x 1.2
CLW3-ST-5.0X-65	No	5.0	65	0.28	0.008	0.96 x 0.72	1.2 x 0.96
CLW3-ST-5.0X-65D	Yes	5.0	65	0.28	0.008	0.96 x 0.72	1.2 x 0.96
CLW3-ST-6.0X-65	No	6.0	65	0.2	0.007	0.8 x 0.6	1.1 x 0.8
CLW3-ST-6.0X-65D	Yes	6.0	65	0.2	0.007	0.8 x 0.6	1.1 x 0.8
CLW3-ST-7.0X-65	No	7.0	65	0.2	0.007	0.68 x 0.51	0.91 x 0.68
CLW3-ST-7.0X-65D	Yes	7.0	65	0.2	0.007	0.68 x 0.51	0.91 x 0.68
CLW3-ST-8.0X-65	No	8.0	65	0.2	0.007	0.6 x 0.45	0.8 x 0.6
CLW3-ST-8.0X-65D	Yes	8.0	65	0.2	0.007	0.6 x 0.45	0.8 x 0.6

**Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg.  $\pm 763@F11$ ). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

# CLW3-ST SERIES

## ■ WD 110mm

Model No.	<a href="#">Click to view details/drawings</a>						
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD(6.4 x 4.8)
CLW3-ST-0.5X-110D	Yes	0.5	110	2.3	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-110	No	0.8	110	3.0	0.011	6 x 4.5	8 x 6
CLW3-ST-0.8X-110D	Yes	0.8	110	2.0	0.011	6 x 4.5	8 x 6
CLW3-ST-1.0X-110	No	1.0	110	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-110D	Yes	1.0	110	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-110	No	1.5	110	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-110D	Yes	1.5	110	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-110	No	2.0	110	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-110D	Yes	2.0	110	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-110	No	3.0	110	0.35	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-3.0X-110D	Yes	3.0	110	0.35	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-110	No	4.0	110	0.3	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-110D	Yes	4.0	110	0.3	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-6.0X-110	No	6.0	110	0.18	0.008	0.8 x 0.6	1.1 x 0.8
CLW3-ST-6.0X-110D	Yes	6.0	110	0.18	0.008	0.8 x 0.6	1.1 x 0.8

**Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg.  $\pm 763@F11$ ). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

# CLW3-ST SERIES

## ■ WD 130-180mm

Model No.	<a href="#">Click to view details/drawings</a>						
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD(6.4 x 4.8)
CLW3-ST-0.5X-130	No	0.5	130	2.3	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.3X-150	No	0.3	150	2.8	0.009	16 x 12	21 x 16
CLW3-ST-0.5X-150	No	0.5	150	2.3	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-150	No	0.8	150	3.0	0.011	6 x 4.5	8 x 6
CLW3-ST-0.8X-150D	Yes	0.8	150	2.0	0.011	6 x 4.5	8 x 6
CLW3-ST-1.0X-150	No	1.0	150	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-150D	Yes	1.0	150	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-150	No	1.5	150	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-150D	Yes	1.5	150	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-150	No	2.0	150	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-150D	Yes	2.0	150	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-150	No	3.0	150	0.58	0.01	1.6 x 1.2	2.1 x 1.6
CLW3-ST-3.0X-150D	Yes	3.0	150	0.58	0.01	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-150	No	4.0	150	0.3	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-150D	Yes	4.0	150	0.3	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-6.0X-150D	No	6.0	150	0.18	0.008	0.8 x 0.6	1.1 x 0.8
CLW3-ST-6.0X-150D	Yes	6.0	150	0.18	0.008	0.8 x 0.6	1.1 x 0.8
CLW3-ST-0.3X-180	Yes	0.3	180	3.2	0.009	16 x 12	21 x 16

**Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

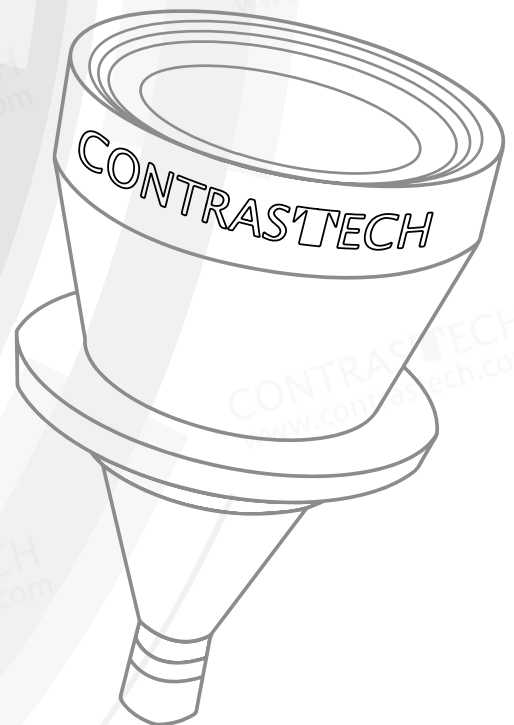
# CLW3-ST SERIES

## ■ WD 250mm

Model No.	<a href="#">Click to view details/drawings</a>						
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD (6.4 x 4.8)
CLW3-ST-0.3X-250	No	0.3	250	2.8	0.008	16 x 12	21 x 16
CLW3-ST-0.5X-250	No	0.5	250	2	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.5X-250D	Yes	0.5	250	2	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-250	No	0.8	250	1.8	0.011	6 x 4.5	8 x 6
CLW3-ST-0.8X-250D	Yes	0.8	250	1.8	0.011	6 x 4.5	8 x 6
CLW3-ST-1.0X-250	No	1.0	250	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-250D	Yes	1.0	250	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-250	No	1.5	250	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-250D	Yes	1.5	250	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-250	No	2.0	250	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-250D	Yes	2.0	250	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-250	No	3.0	250	0.35	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-3.0X-250D	Yes	3.0	250	0.35	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-250	No	4.0	250	0.22	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-250D	Yes	4.0	250	0.22	00.009	1.2 x 0.9	1.6 x 1.2

**Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

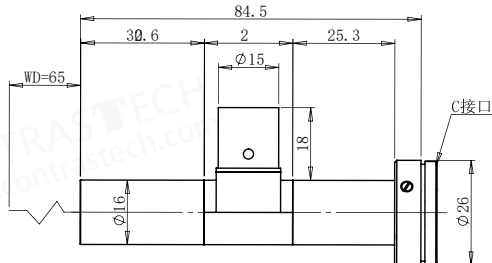
# LENS PARAMETER DIAGRAM



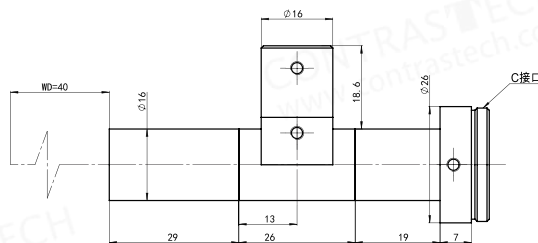
# CLW3-ST SERIES

## ■ WD 40mm

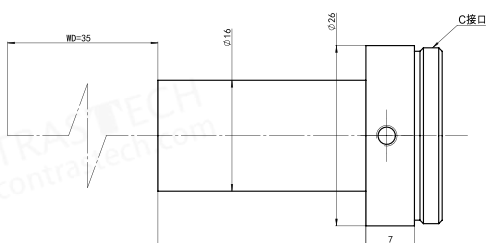
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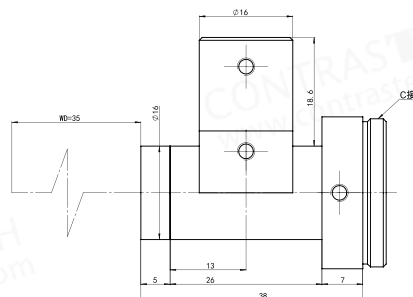
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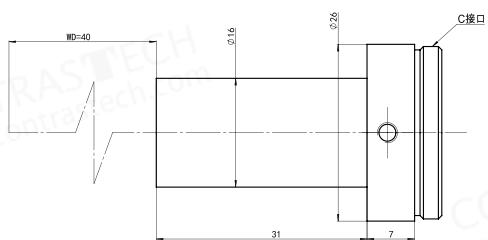
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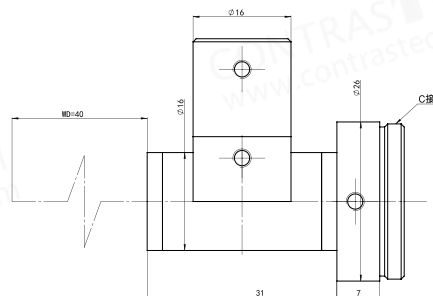
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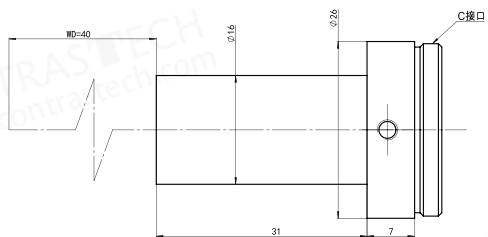
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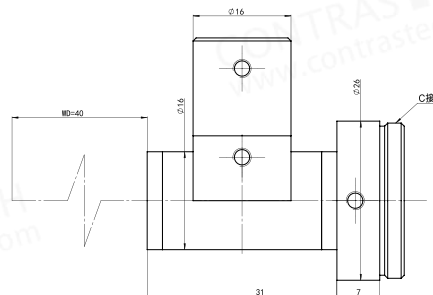
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**CLW3-ST-4.0X-40**



**CLW3-ST-4.0X-40D**



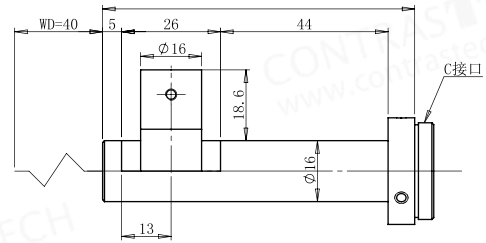
# CLW3-ST SERIES

## ■ WD 40mm

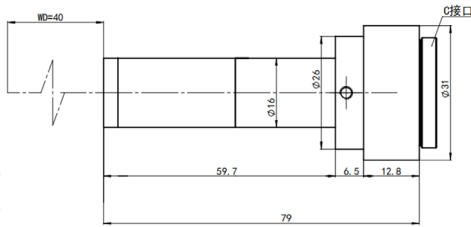
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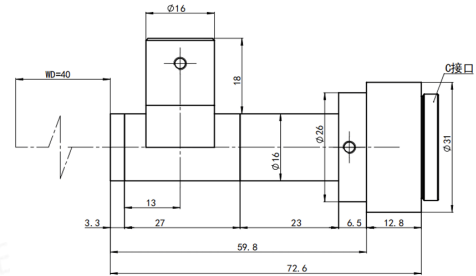
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CLW3-ST-8.0X-40



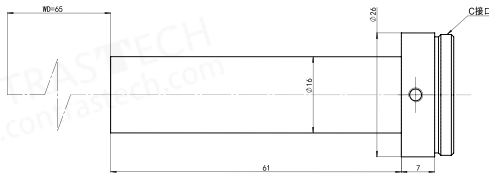
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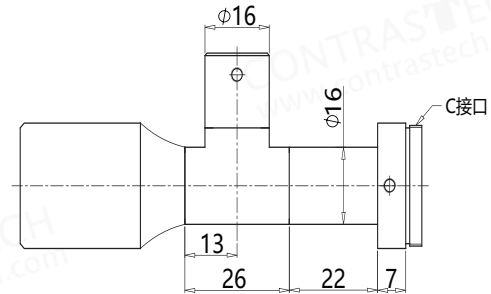
# CLW3-ST SERIES

## ▪ WD 65mm

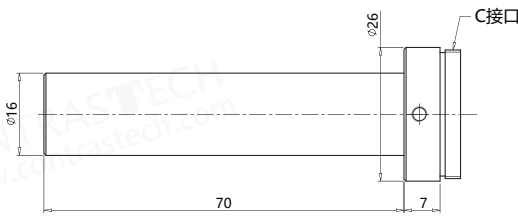
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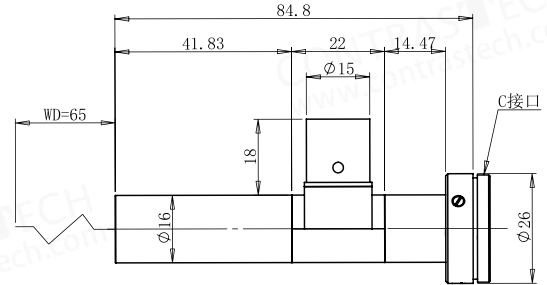
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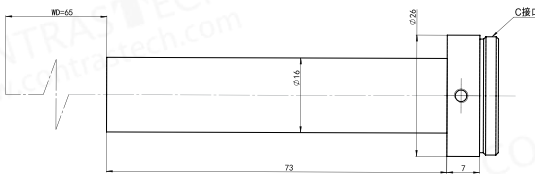
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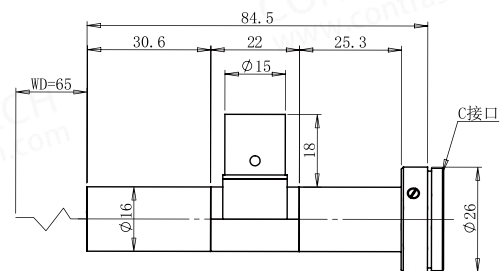
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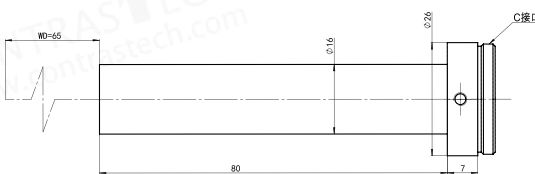
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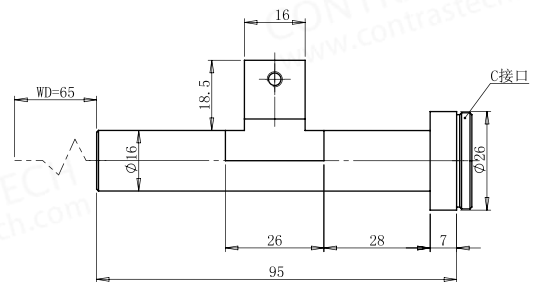
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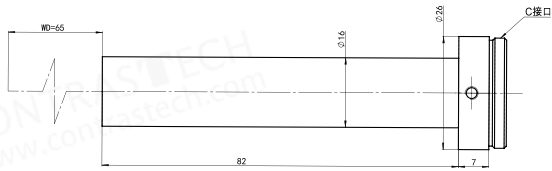
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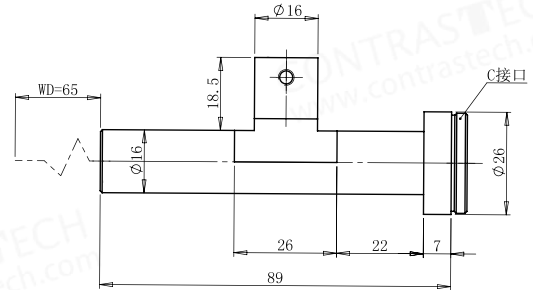
# CLW3-ST SERIES

## ■ WD 65mm

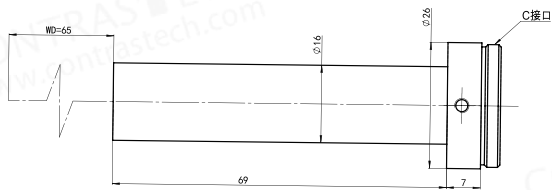
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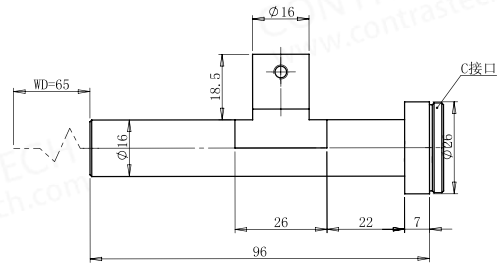
CLW3-ST-2.0X-65D



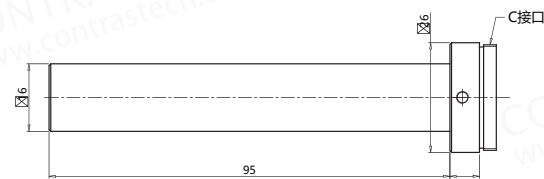
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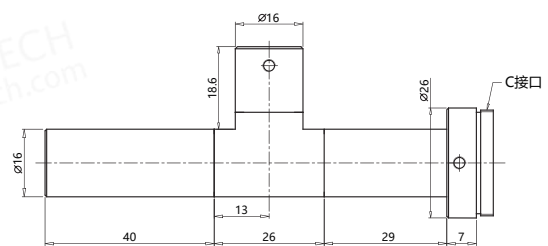
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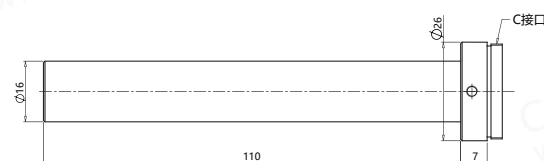
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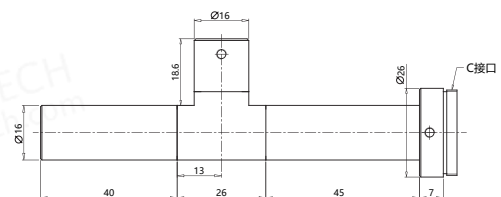
CLW3-ST-4.0X-65D



CLW3-ST-5.0X-65

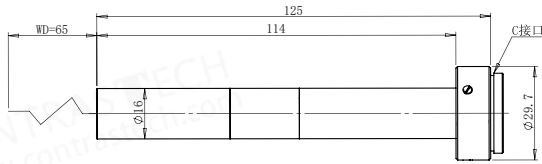
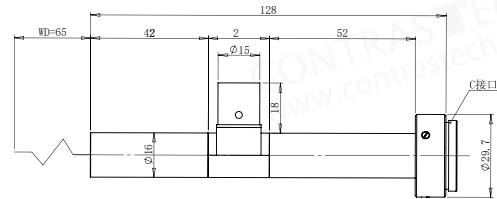


CLW3-ST-5.0X-65D



# CLW3-ST SERIES

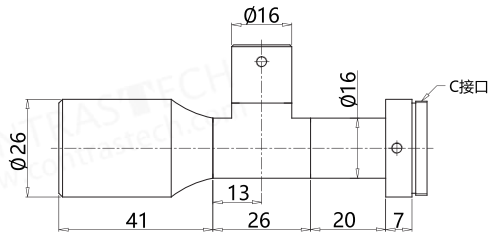
## ▪ WD 65mm

**CLW3-ST-6.0X-65****CLW3-ST-6.0X-65D**

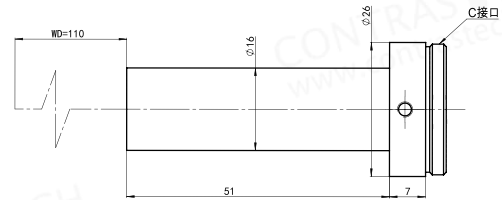
# CLW3-ST SERIES

## ■ WD 110mm

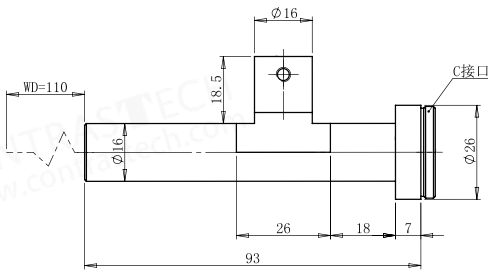
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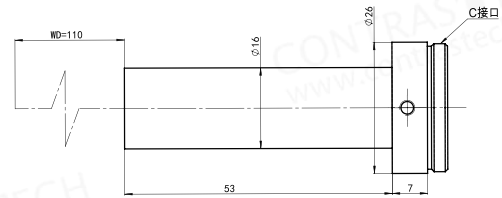
CLW3-ST-0.8X-110



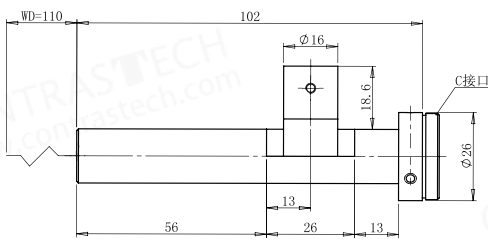
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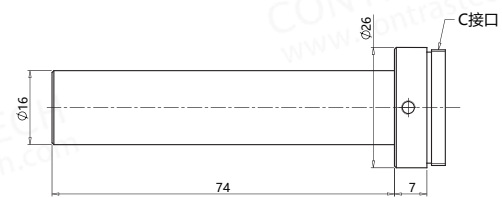
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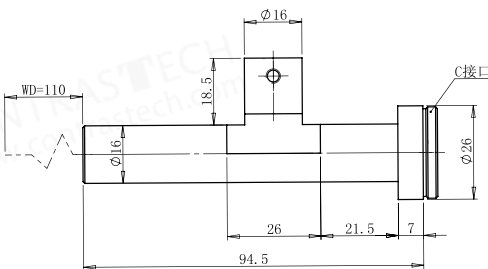
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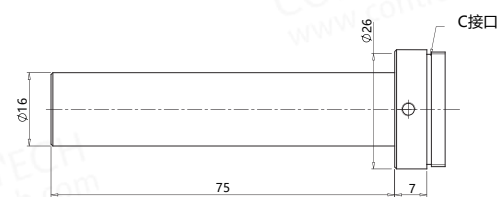
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CLW3-ST-1.5X-110D



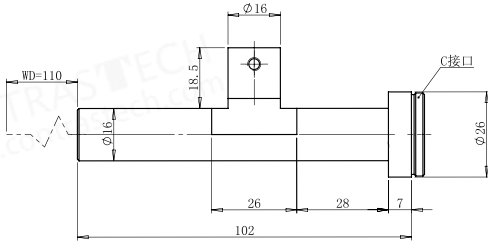
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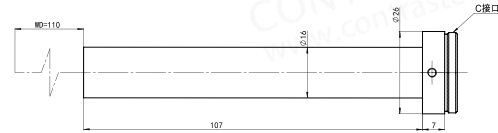
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## ■ WD 110mm

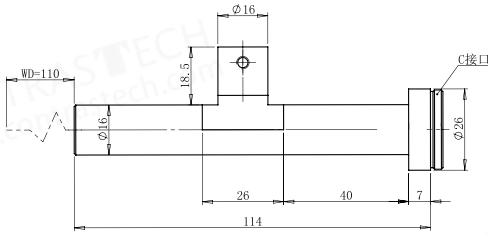
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CLW3-ST-3.0X-110



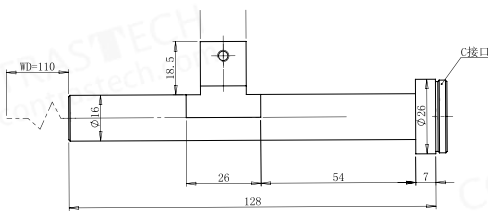
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CLW3-ST-4.0X-110



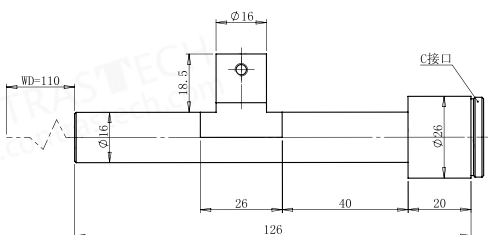
CLW3-ST-4.0X-110D



CLW3-ST-6.0X-110



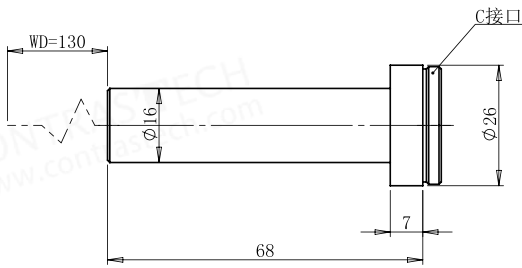
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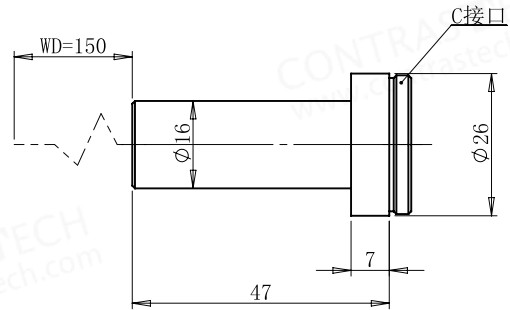
# CLW3-ST SERIES

## ■ WD 130-180mm

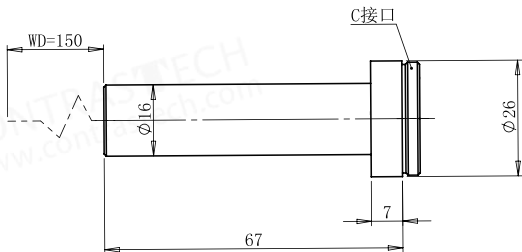
**CLW3-ST-0.5X-130**



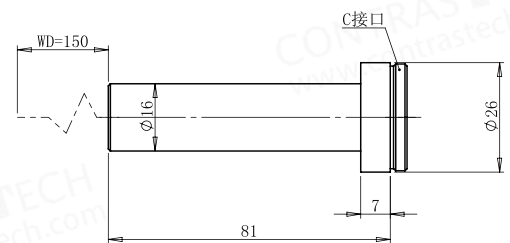
**CLW3-ST-0.3X-150**



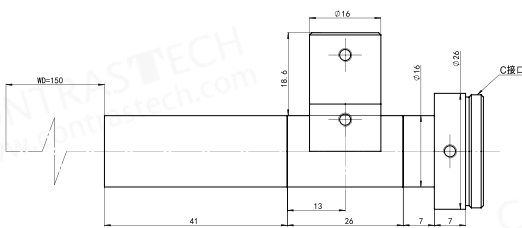
**CLW3-ST-0.5X-150**



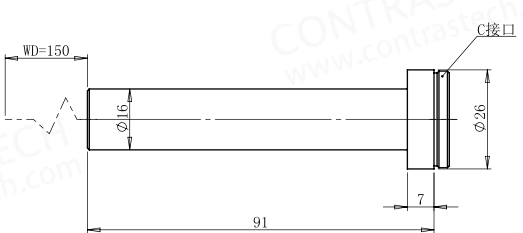
**CLW3-ST-0.8X-150**



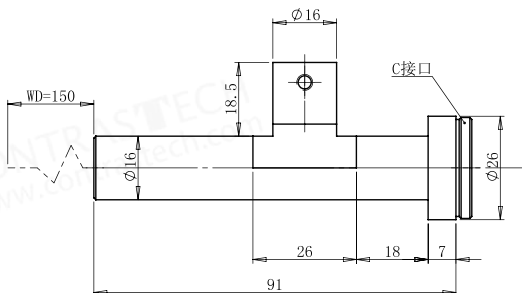
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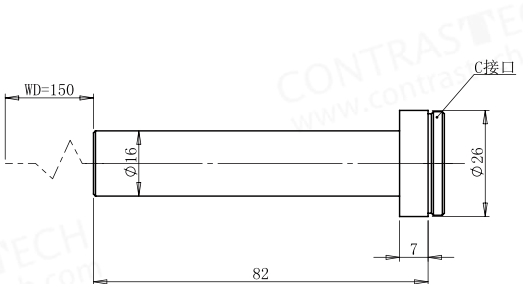
**CLW3-ST-1.0X-150**



**CLW3-ST-1.0X-150D**



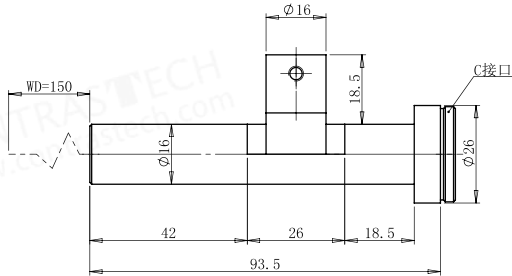
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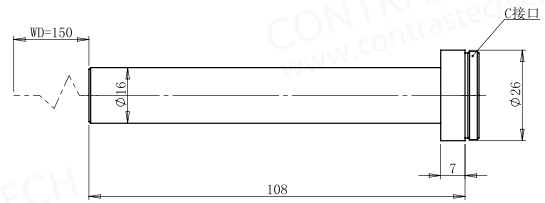
# CLW3-ST SERIES

## ■ WD 130-180mm

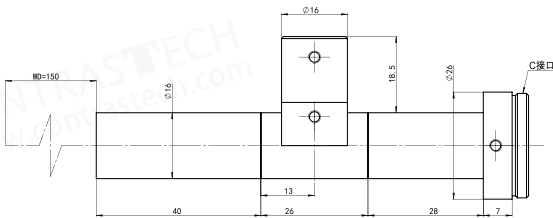
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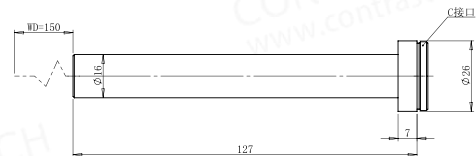
**CLW3-ST-2.0X-150**



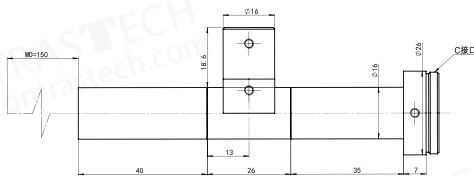
**CLW3-ST-2.0X-150D**



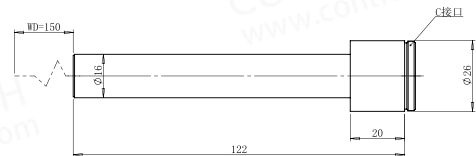
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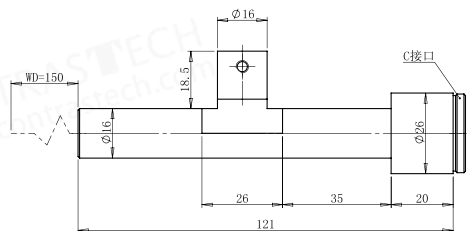
**CLW3-ST-3.0X-150D**



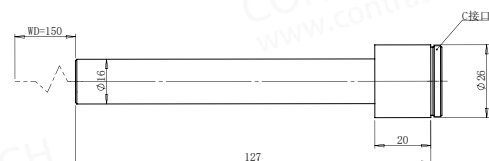
**CLW3-ST-4.0X-150**



**CLW3-ST-4.0X-150D**



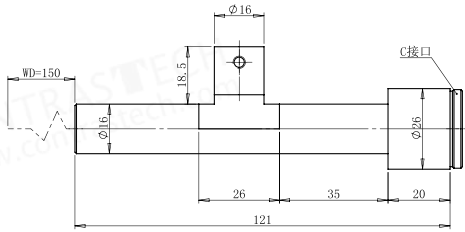
**CLW3-ST-6.0X-150**



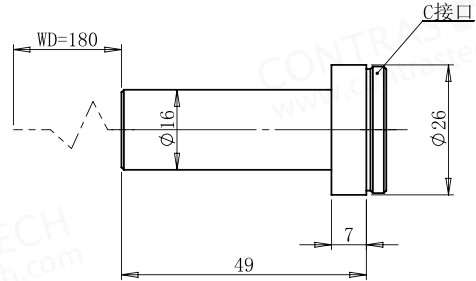
# CLW3-ST SERIES

## ■ WD 130-180mm

CLW3-ST-6.0X-150D



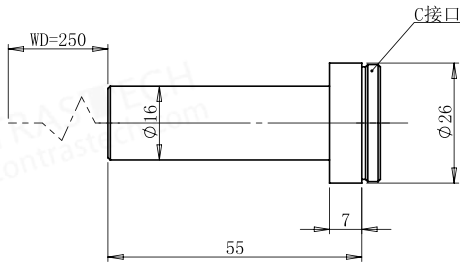
CLW3-ST-0.3X-180



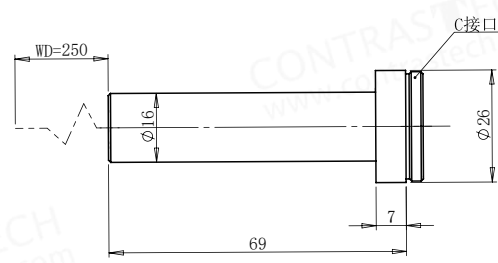
# CLW3-ST SERIES

## ■ WD 250mm

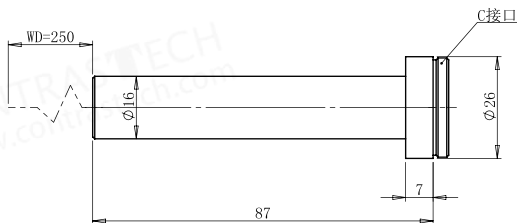
**CLW3-ST-0.3X-250**



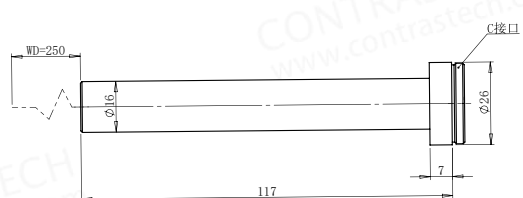
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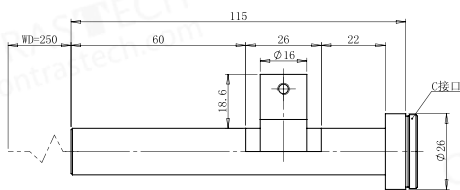
**CLW3-ST-0.8X-250**



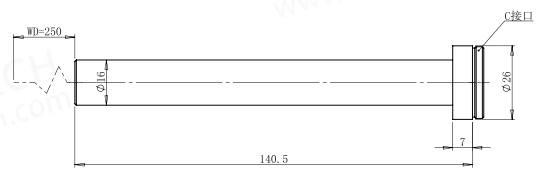
**CLW3-ST-1.0X-250**



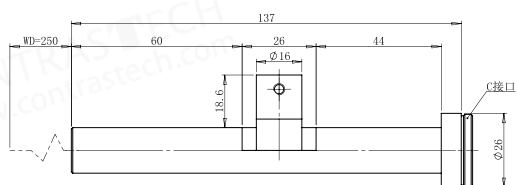
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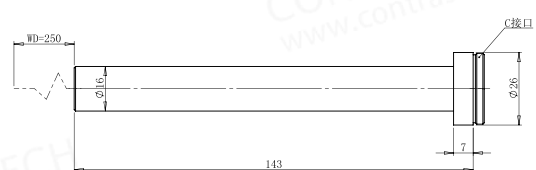
**CLW3-ST-1.5X-250**



**CLW3-ST-1.5X-250D**



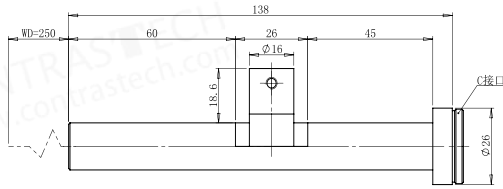
**CLW3-ST-2.0X-250**



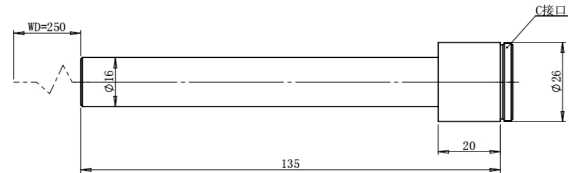
# CLW3-ST SERIES

## ■ WD 250mm

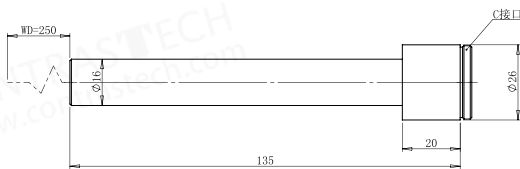
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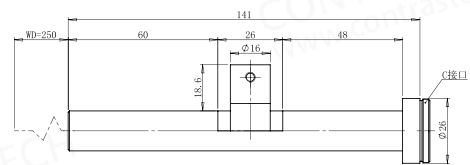
CLW3-ST-3.0X-250



CLW3-ST-4.0X-250



CLW3-ST-4.0X-250D



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