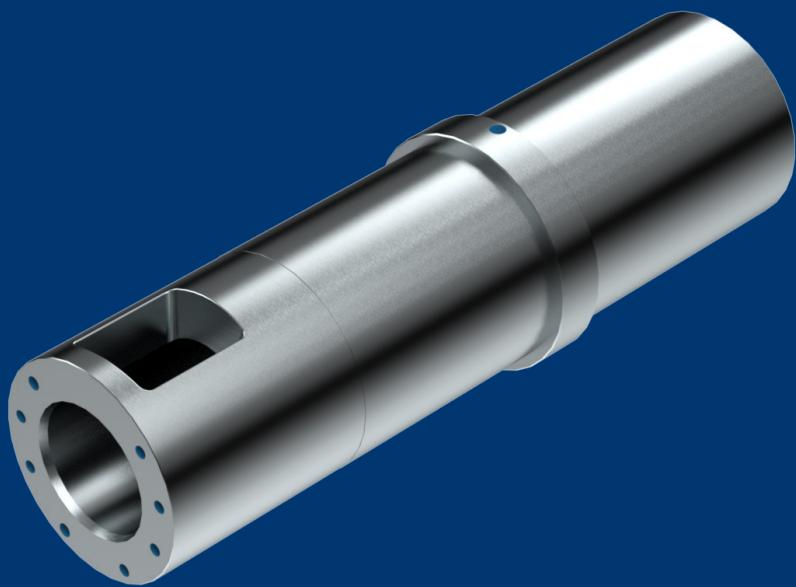




Products & Services > Die Casting  
> Shot Sleeve

# DATA SHEET

## Shot Sleeve



## Shot Sleeve

### DESCRIPTION

HTS IC supplies a variety of shot sleeves for aluminum HPDC systems. By providing a variety of sleeve customization options, we can make shot sleeves to work with any HPDC system.

#### **Thermal regulation or cooling of the sleeve is offered at:**

**(1)** Underside of the sleeve, by gun-drilling of an interconnected system of holes for preventing sleeve warpage due to thermal gradients and minimizing erosion from the pour

**(2)** Around the shot end of the sleeve using specially designed cooling ring to provide additional cooling of the biscuit.

Other customization options are available, such as replaceable insert at pour area to prolong the sleeve in-service lifetime, and setup for four different type of lubrication systems. The sleeve tolerances on our shot sleeves are optimized for use with iTherm® Shot Tips.

Standard quality sleeves can be ordered as standard-type product directly from our web site [www.hts-ic.com](http://www.hts-ic.com). Custom dimensions, material options, hardness, and custom surface treatments are available upon request.

### MAIN ADVANTAGES

- Basic shot sleeve dimensions can be selected for inner diameter, D, between 80 and 150mm, with corresponding length, L, between 400 and 1400mm. Other dimensions including the pour opening depend on the above selection (see technical specification tables).
- Hot-work tool steel in combination with NITOP nitrided surface provides good resistance to high temperatures, erosion, and washing phenomena

### DEPENDING ON COOLING AND OPERATIONAL REQUIREMENTS THE FOLLOWING OPTIONS CAN BE SELECTED:

- Thermal Regulation; gun-drilled cooling system,
- Cooling Ring,
- Lubrication options (LUB DROP; COMBI LUB, TUBE LUBE, and GROOVE LUBE),
- Replaceable Insert

## Shot Sleeve

### **SPECIAL MATERIAL AND DESIGN OPTIONS ARE AVAILABLE**

#### **WX Quality Sleeves**

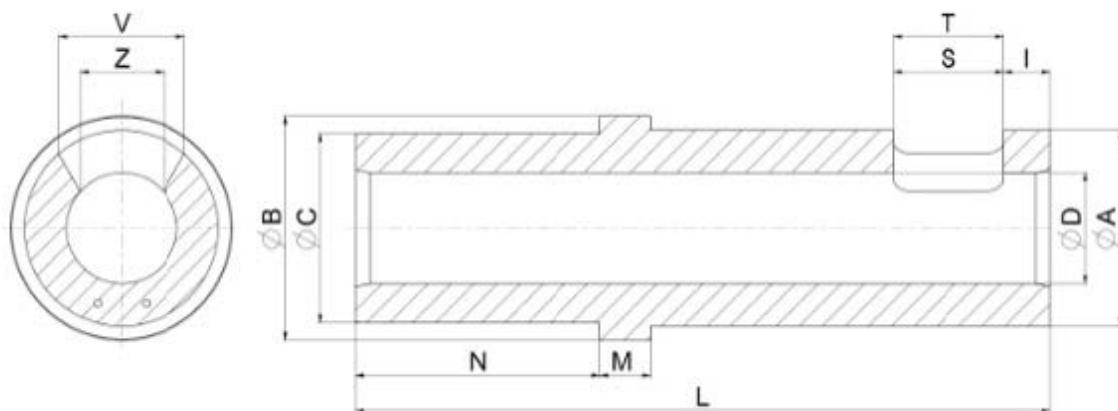
With special surface-alloying option of the inner surface for severe working conditions (see WX Quality Sleeves with selection of surface alloying materials).

#### **MULTIX Quality Sleeves**

Multix quality sleeves are based on innovative Passive Thermal Regulation system that prevents sleeve overheating and minimizes its thermally induced distortion. Significant improvements are achieved that result in prolonged in-service life (see MULTIX Quality Sleeves for technical advantages).

## Shot Sleeve

### GENERAL DIMENSIONS

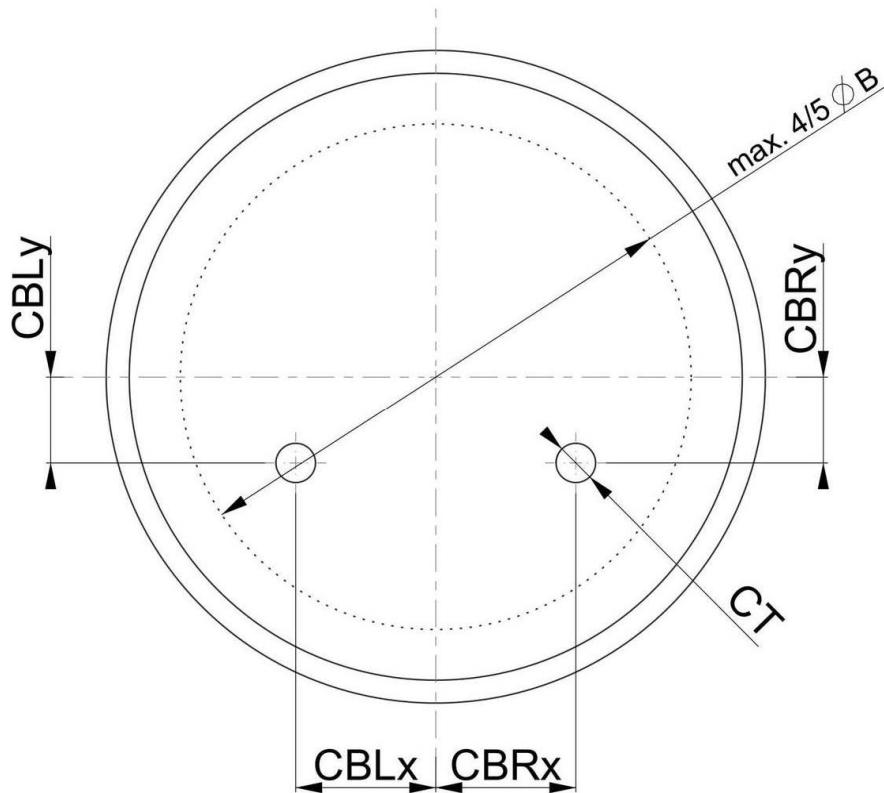


<b><math>\varnothing D</math></b>	<b>40-220</b>	<b>M</b>	<b>0 - 80</b>
<b><math>\varnothing A</math></b>	$(D+20) - X$	<b>I</b>	$10 - x$
<b><math>\varnothing B</math></b>	$\varnothing C - X$	<b>S</b>	$20 - x$
<b><math>\varnothing C</math></b>	$(D+20) - X$	<b>T</b>	$50 - 200$
<b>L</b>	$300 - 1500$	<b>Z</b>	$50 - 200$
<b>N</b>	$20 - 300$	<b>V</b>	$1 - 15$

## Shot Sleeve

### CONNECTION HOLES (BOTTOM)

Connection holes can be positioned on bottom of distributor or on side of distributor. Both options are limited depending on dimensions of distributor. Limits are shown below.

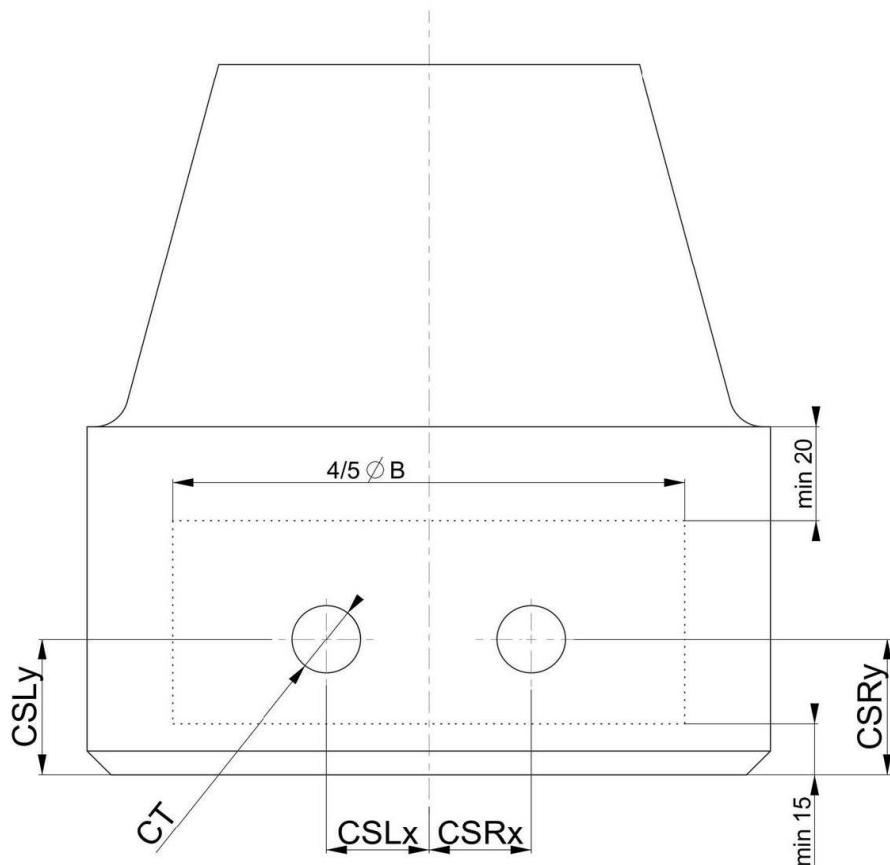


Dimension	Limits
<b>CBLx</b>	0 – $(\emptyset B/4)$
<b>CBRx</b>	0 – $(\emptyset B/4)$
<b>CBLy</b>	0 – $(\emptyset B/4)$
<b>CBRy</b>	0 – $(\emptyset B/4)$
<b>CT</b>	$\frac{1}{4}$ NPT, $\frac{3}{8}$ NPT, $\frac{5}{8}$ NPT, G1/2

All dimensions are in mm

## Shot Sleeve

### CONNECTION HOLES (SIDE)

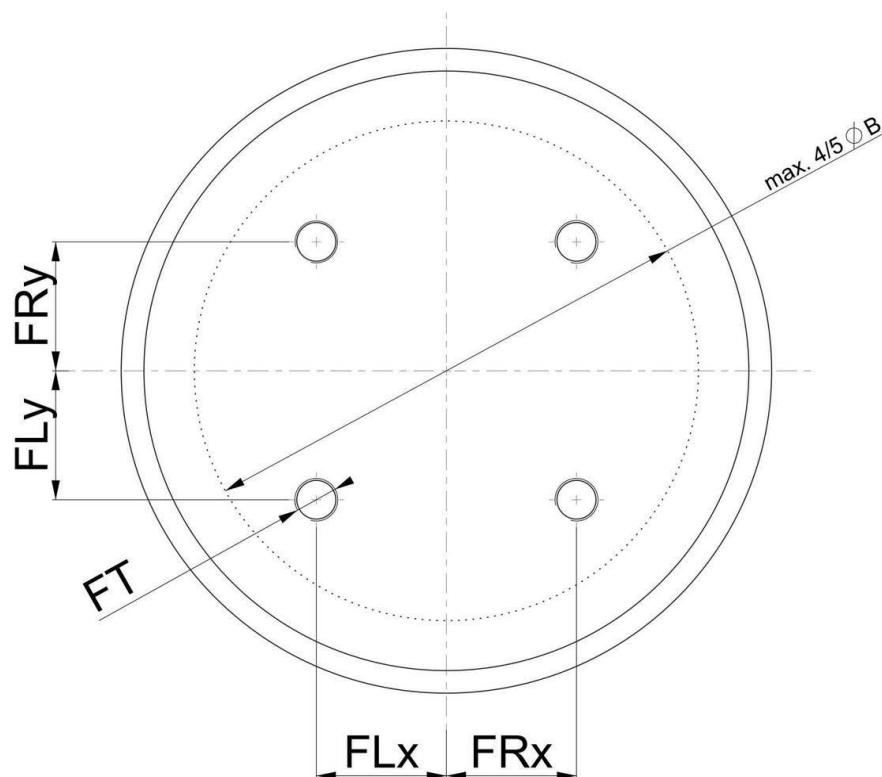


Dimension	Limits
CSLx	0 – (4ØB/10)
CSRx	0 – (4ØB/10)
CSLy	15 – (A – C – 20)
CSRy	15 – (A – C – 20)
CT	1/4 NPT, 3/8 NPT, 5/8 NPT, G1/2

All dimensions are in mm

## Shot Sleeve

### FIXING HOLES



Dimension	Limits
FLx	0 – ( $\text{ØB}/4$ )
FRx	0 – ( $\text{ØB}/4$ )
FLy	(0 – ( $\text{ØB}/4$ ))
FRy	(0 – ( $\text{ØB}/4$ ))
FT	M10, M12, M14, M16, M18, M20, 1/4-20 UNC, 3/8-16 UNC, 5/8-11 UNC, 3/4-10 UNC
FRy	0 - 40

All dimensions are in mm

## Shot Sleeve

### MATERIAL

A selection of material and material hardness is possible. Customers can choose between different types of hot work tool steel and material hardness per customer request. Additionally, selection of surface nitriding is an option.

**Do you need a slightly different design or component?**

**We got you covered.**

Contact our die casting professionals and we will do our best to match your requirements. You can count on us to support you through each step of performance improvement.

**[sales@hts-ic.com](mailto:sales@hts-ic.com)**