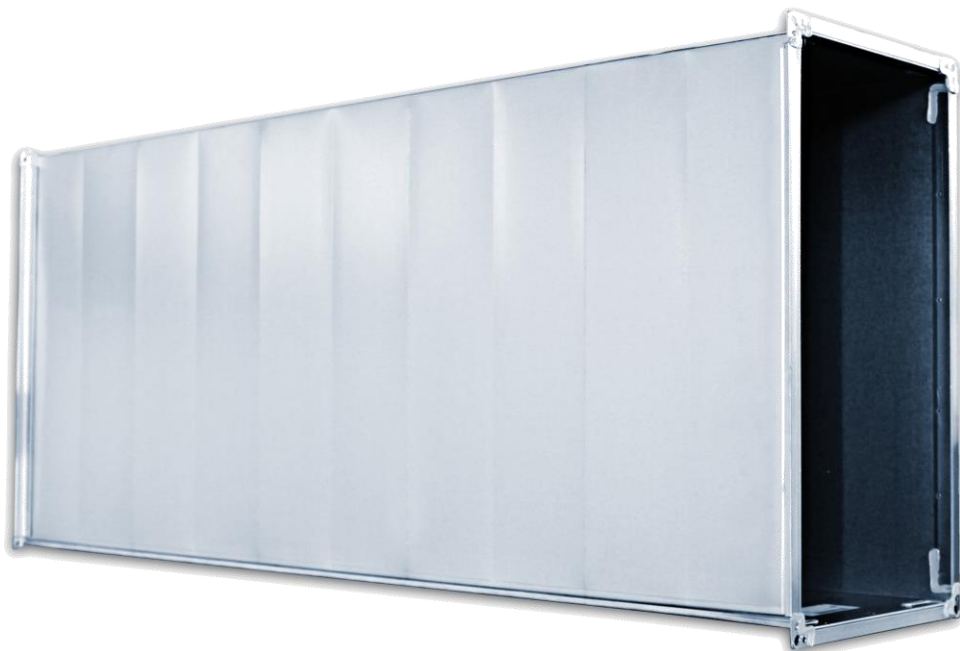




CATALOGUE • RECTANGULAR DUCT



Basic requirements for entry VZT duct production in company APIAGRA Ltd.

1. Entering into manufacturing

In digital format on the form „F05-8.0_Duct schedule“, sent by email or in written form in person – delivering to production manager - internal input. External input only through Pricing department.

HVAC RECTANGULAR DUCT – FLAT



Description

Rectangular ventilation duct in these technical terms means flat pipes, shaped pieces (fittings) and the shaped pipes evenly following them.

Specified entry RUHD and RUH

1. **RUHD** will be automatically manufactured with **1xVP**, in case of requesting the fixed flanges enter it in the notes **PP**.
2. If required for the two extra free flanges, enter it into note **2xVP for 1pc**, more precisely for more pieces into **C1:VP** and into **C2:VP**.
3. If required without the flange, enter it into note **2xBP for 1pc**, more precisely for more pieces into **C1:BP** and into **C2:BP**.
4. Requirement for production of 1x without flanges, enter it into a note **1xBP for 1pc**, more precisely for more pieces into **C1:BP** or into **C2:BP**.

Pipes of L = 1001 ~ 1500 are marked as RUH. RUH will be automatically manufactured for fixed flange.

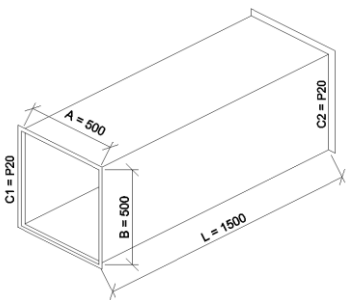
1. If required for the two extra free flanges, enter it into note **2xVP for 1pc**, more precisely for more pieces into **C1:VP** and into **C2:VP**.
2. Requirement for **RUH** production with 1x extra free flange, put it into note **1xVP for 1pc**, more precisely for more pieces into **C1:VP** or into **C2:VP**.
3. If required without the flange, please enter it into note **2xBP for 1pc**, more precisely for more pieces into **C1:BP** and into **C2:BP**.
4. Requirement for production with 1x without flange, enter it into note **1xBP for 1pc**, more precisely for more pieces into **C1:BP** or into **C2:BP**.

Do not specify RUH and RUHD with hem. It is intended to „NAS H“, more precisely „NAS HN“

For hem, it is intended an item marked as NAS H. NAS H is automatically manufactured with **1xVP, 1xLem25, L=150mm**.

1. Requirement for different length , e.g. 300mm enter in the item L:300 (if not entering an item, „L“ is manufactured **NASH** as L=150 mm).
2. Requirement for fixed flange (**PP**), more precisely free flange (**VP**) put it into **C1:PP** alebo **VP**
3. Requirement for changing of hem size to different one, e.g. lem 30, put it into **C2** (required lem size):**lem30**.

Extention to the splitter NAS HN is automatically manufactured with **1xPP, 1xLem25, L = 150 mm, R = 150 mm**. Requirement for changing of hem size to different one, e.g. lem30, please, put it into **C2** (required hem size):**lem30**.

RUH - Square duct - coil			
L = 1500 mm (fixed flange)	Description + Marking/Order	Sorts/Conditions	Notes
	RUH AxB Example of an order: RUH 500x500 ...2pcs	Dimension $A \geq 100\text{mm}$ Dimension $B \geq 100\text{mm}$	Finish of the HVAC duct for the 1st group of TPA 12 0403/1 - Internal regulation of APIAGRA Ltd. company for making HVAC ducts made of galvanized metal sheet w. $0,6 \div 1,1$ mm a typu DX51D + Z275MAC.

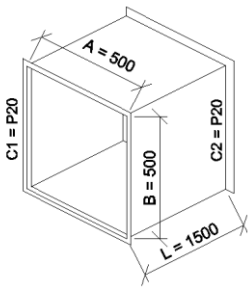
RUH DOMER – Square duct - cut			
L = 500, 750, 1000 a 1500 mm (of VP)	Description + Marking/Order	Sorts/Conditions	Notes
	RUH D AxB/L Example of an order: RUH D 500x500/500..2pcs (It is: RUH500x500/500 z1xVP in count 2pcs)	Dimension $A \geq 100\text{mm}$ Dimension $B \geq 100\text{mm}$ Dimension L=500mm Dimension L=750mm Dimension L=1000mm Dimension L=1500mm	Finish of the HVAC duct for the 1st group of TPA 12 0403/1



Figure 1- RUH - square pipe (left), RUH DOMER – square domer pipe (right)

Naming of the simple shapes is governed by the regulation STN 12 0000. Basic documents for development of technical terms are the regulations ST EN 1505, DIN 24 190, DIN 24 191, company regulations ON 120403.

HVAC RECTANGULAR DUCT –FITTINGS



Description

Rectangular ventilation duct in these technical terms means shaped pieces (fittings) and the shaped pipes evenly following them.

Entering into manufacturing

For the need of entering the production of rectangular square bend and reducing rectangular square bend is analogical to rectangular radius bend and reducing rectangular radius bend.

EXAMPLE:

OBLH3 – OBLH90 for the need of square bend, the mark is **KOLH3 – KOLH90**.

OBLHPR90 for the need of reducing square bend, the mark is **KOLHPR90**.



Figure 2 - Difference between OBLH90 and KOLH90

For entering the inner radius $R < 150\text{mm}$ with radius bend and square bend, the following principles:

! It is necessary to enter sharp radius into the manufacturing – cut – e.g. $R100 \times 100\text{mm}$.

EXAMPLE:

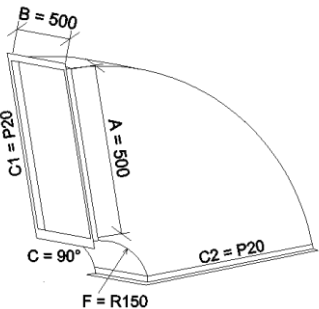
OBLH90 500x500/R100x100

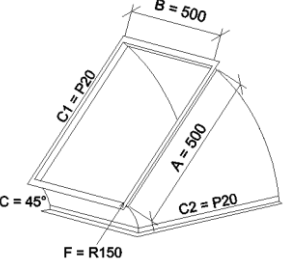
Input: A = 500, B = 500, C = 90 (do not need to enter), D = 100, E = 100, F = 0

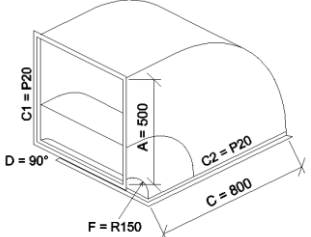
! Minimal sharp radius - cut is $R50 \times 50\text{mm}$.

WARNING!

When entering OBLH and OBLHPR with cut with dimensions $A, C \leq 315\text{mm}$, you must enter them as KOLH or KOLHPR with zásekom.

OBLH90 – Rectangular bend at an angle=90°			
angle=90°	Description + Marking/Order	Sorts/Conditions	Notes
	OBLH90 AxB Example of an order: OBLH90 500x500...2pcs	Dimension $A \geq 100\text{mm}$ Dimension $B \geq 100\text{mm}$ Dimension $R=150\text{mm}$ Dimension variants: 100, 125, 160, 200, 225, 250, 280, 315, 355, 400, 450, 500, 560, 630, 710, 800, 900, 1000, 1120, 1250, 1400, 1600, 1800	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

OBLH45 – Rectangular bend at an angle=45°			
angle=45°	Description + Marking/Order	Sorts/Conditions	Notes
	OBLH45 AxB Example of an order: OBLH45 500x500...2pcs	Dimension $A \geq 100\text{mm}$ Dimension $B \geq 100\text{mm}$ Dimension $R=150\text{mm}$	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

OBLPRH90 – Rectangular bend angle=90°			
angle=90°	Description + Marking/Order	Sorts/Conditions	Notes
	OBLPRH90 CxB/A Example of an order: OBLPRH90 800x500/500 ...1pcs	Dimension $C > A$ Dimension $A \geq 100\text{mm}$ Dimension $B \geq 100\text{mm}$ Dimension $C > 100\text{mm}$ Dimension $R=150\text{mm}$	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

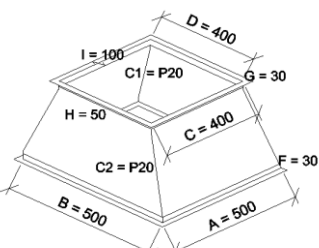
OBLH45

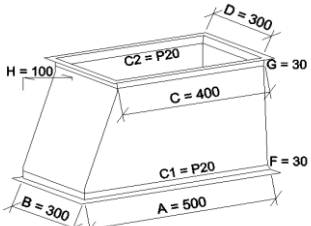
OBLH90

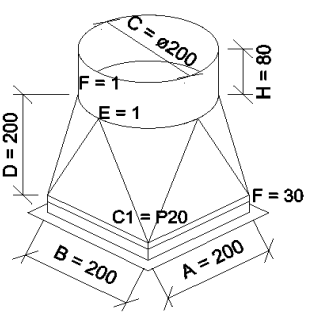
OBLPRH90



Figure 3- Example of rectangular radius bend

PRH1S – Square reduce/taper duct symmetrical			
L=300mm	Description + Marking/Order	Sorts/Conditions	Notes
	PRH1S AxB/CxD Example of an order: PRH1S 500x600/400x400 ...1pcs	Dimension A>100mm Dimension B>100mm Dimension C≥100mm Dimension D≥100mm Dimension L=300mm	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

PRH1K – Square reduce/taper duct vertical			
L=300mm	Description + Marking/Order	Sorts/Conditions	Notes
	PRH1K AxB/CxB Example of an order: PRH1K 500x300/400x300 ...1pcs	Dimension A>100mm Dimension B≥100mm Dimension C≥100mm Dimension L=300mm	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

PRHK1 – Reduce/taper square to circle			
L=200mm without round flange	Description + Marking/Order	Sorts/Conditions	Notes
	PRHK1 AxB/øD Example of an order: PRHK1 200x200/ø200 ...1pcs	Dimension $A=B=\varnothing D$ Dimension L=200mm (L is distance from the rectangular flange to sigma, total length is $L1=L+80$) Dimension variants: <u>PRHK1 AxB/øD:</u> 100,125,160,200,250,315,355,400,450,500,560,630,710,800,900,1000,1250	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

If necessary to enter different type of hranatého prechodu as mentioned above, it is necessary to use a shortcut PRH1 and enter the value according to the designing programe CamDuct.

EXAMPLE:

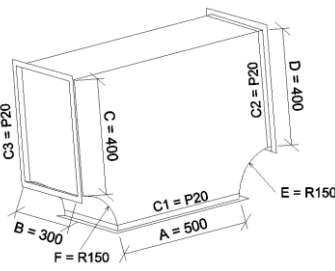
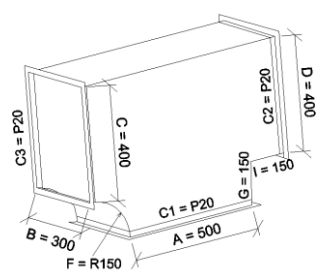
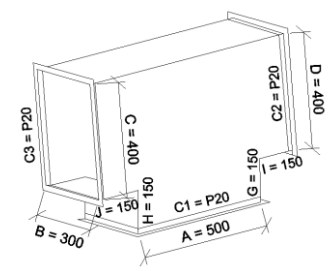
PRH1 A=500/B=400/C=600/D=300/E=500 (length) /H=50/l=50/

Values for F,G=30 **do not entry!**

! Beware of the total length of rectangular reducer. Minimal length = 300mm.



Figure 4 – Example of rectangular reducers

ROZH90 – Rectangular double branch			
R150, R150x150	Description + Marking/Order	Sorts/Conditions	Notes
	<p>ROZH90 AxB/C=D Example of an order: ROZH90 500x300/400 ...1pcs</p>	<p>Dimension <u>C=D</u> Dimension A ≥ 100mm Dimension B ≥ 100mm Dimension C ≥ 100mm Dimension R = 150mm</p>	<p>Finish of the HVAC duct for the 1st group of TPA 12 0403/1</p>
	<p>ROZH90 AxB/C=D/R/RxR Example of an order: ROZH90 500x300/400/150/150x150 ...1pcs</p>	<p>Dimension <u>C=D</u> Dimension A ≥ 100mm Dimension B ≥ 100mm Dimension C ≥ 100mm Dimension R/RxR: R=F=150mm RxR=GxI=150x150mm</p>	
	<p>ROZH90 AxB/C=D/RxR Example of an order: ROZH90 500x300/400/150x150 ...1pcs</p>	<p>Dimension <u>C=D</u> Dimension A ≥ 100mm Dimension B ≥ 100mm Dimension C ≥ 100mm Dimension RxR: JxH=GxI=150x150mm</p>	

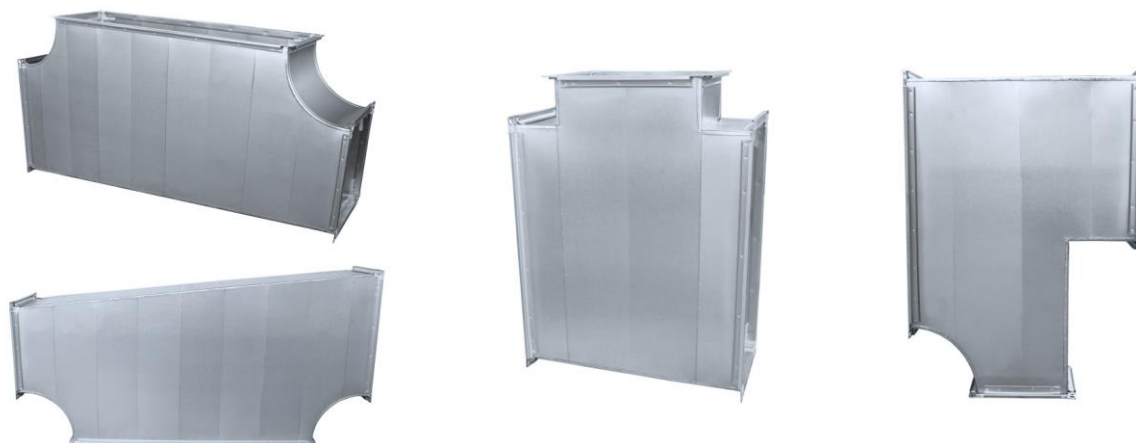
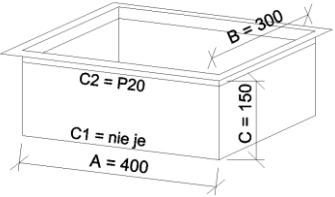
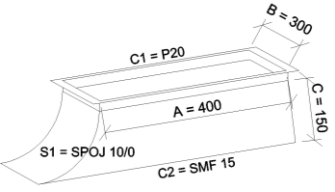
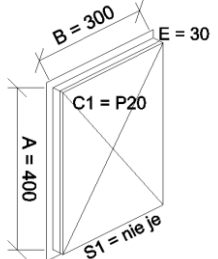


Figure 5 – Example of rectangular tees

NASH – Rectangular extension			
L=150mm (1xLem25mm, 1xVP)	Description + Marking/Order	Sorts/Conditions	Notes
	NASH AxB Example of an order: NASH 400x300 ...2pcs	Dimension $A \geq 100\text{mm}$ Dimension $B \geq 100\text{mm}$ Dimension $L = 150\text{mm}$	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

NASHN – Rectangular extension - shoe			
L=150mm+R (1xLem25mm, 1x fixed flange)	Description + Marking/Order	Sorts/Conditions	Notes
	NASHN AxB Example of an order: NASHN 400x300 ...2pcs	Dimension $A \geq 100\text{mm}$ Dimension $B \geq 100\text{mm}$ Dimension $L = 150\text{mm}$ Dimension $R = 150\text{mm}$	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

ZSLH – Rectangular cap end			
L=30mm (fixed flange)	Description + Marking/Order	Sorts/Conditions	Notes
	ZSLH AxB Example of an order: ZSLH 400x300 ...2pcs	Dimension $A \geq 100\text{mm}$ Dimension $B \geq 100\text{mm}$ Dimension $L = 30\text{mm}$	Finish of the HVAC duct for the 1st group of TPA 12 0403/1

Specified entry NASH and NASHN

Rectangular shoe NAS H

1. **NAS H** is automatically manufactured with 1xVP, 1xLem25, L=150mm.
2. Requirement for different length e.g. 300mm please enter in an item L:300, (if not entering the item „L“ is manufactured NASH as L = 150mm).
3. Requirement for fixed flange (PP), more precisely free flange (VP) put it into C1:PP alebo VP.
4. Requirement for changing of hem size to different one, e.g. hem 30, put it into C2 (required hem size):lem30

Rectangular shoe with splitter NAS HN

1. NAS HN is automatically manufactured with 1xPP, 1x Lem25, L = 150mm, R = 150 mm
2. Requirement for changing of hem size to different one, e.g. lem30, put it into C2 (required hem size):lem30



Figure 6 - Example of rectangular shoes and round cap end



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